Authorization for Credit Card Transactions

Department of Homeland Security

Form G-1450

How To Fill Out Form G-1450

1. Type or print legibly in black ink.
2. Complete the "**Applicant's/Petitioner's/Requester's Information**," "**Credit Card Billing Information**," and "**Credit Card Information**" sections and sign the authorization. **NOTE:** The credit card must be issued by a U.S. bank.
3. Place your Form G-1450 ON TOP of your application, petition, or request package.

NOTE: Failure to provide the requested information may result in DHS and your financial institution not accepting the payment. DHS cannot process credit card payments without an authorized signature.

NOTE: Please see the USCIS Form G-1450 website for additional information.

We recommend that you print or save a copy of your completed Form G-1450 to review in the future and for your records.

By completing this transaction, you agree that you have paid for a government service and that the filing fee, biometric services fee and all related financial transactions are final and not refundable, regardless of any action DHS takes on an application, petition, or request. You must submit all fees in the exact amounts. DHS will charge your credit card up to the amount you authorize below.

Please refer to the form(s) you are filing for additional information, or you may call the USCIS Customer Contact number at **1-800-375-5283**. For TTY (deaf or hard of hearing) call: **1-800-767-1833**.

Applicant's/Petitioner's/Requester's Information (Full Legal Name)		
Given Name (First Name) Luiz Henrique	Middle Name (if any) N/A	Family Name (Last Name) GARCEZ LOTUFO
Credit Card Billing Information (Credit Card Holder's Name as it Appears on the Card)		
Given Name (First Name) Otavio	Middle Name (if any) H	Family Name (Last Name) SILVA
Credit Card Holder's Billing Address:		
Street Number and Name 5051 La Jolla Blvd	Apt. Ste. Flr. ☒ ☐ ☐	Number 202
City or Town San Diego	State CA	ZIP Code 92109
Credit Card Holder's Signature and Contact Information:		
Credit Card Holder's Signature		
Credit Card Holder's Daytime Telephone Number 5102419336	Credit Card Holder's Email Address otavio@legalhs.com	
Credit Card Information		
Credit Card Number	**Credit Card Type:** ☐ Visa ☐ MasterCard ☐ American Express ☐ Discover	Authorized Payment Amount $ 715.00
Credit Card Expiration Date (mm/yyyy) CVV Code		

Authorization for Credit Card Transactions

Department of Homeland Security

Form G-1450

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Applicant's/Petitioner's/Requester's Information (Full Legal Name)		
Given Name (First Name) Luiz Henrique	Middle Name (if any) N/A	Family Name (Last Name) GARCEZ LOTUFO
Credit Card Billing Information (Credit Card Holder's Name as it Appears on the Card)		
Given Name (First Name) Otavio	Middle Name (if any) H	Family Name (Last Name) SILVA
Credit Card Holder's Billing Address:		
Street Number and Name 5051 La Jolla Blvd	Apt. Ste. Flr. ☒ ☐ ☐	Number 202
City or Town San Diego	State CA	ZIP Code 92109
Credit Card Holder's Signature and Contact Information:		
Credit Card Holder's Signature		
Credit Card Holder's Daytime Telephone Number 5102419336	Credit Card Holder's Email Address otavio@legalhs.com	
Credit Card Information		
Credit Card Number Credit Card Expiration Date (mm/yyyy) CVV Code	**Credit Card Type:** ☐ Visa ☐ MasterCard ☐ American Express ☐ Discover	Authorized Payment Amount $ 300.00

EB-2 IMMIGRANT PETITION
WITH REQUEST FOR A NATIONAL INTEREST WAIVER

Petitioner: LOTUFO, Luiz Henrique Garcez

TABLE OF CONTENTS

Petitioner: **LOTUFO, Luiz Henrique Garcez**
Type of Petition: **I-140, EB-2 National Interest Waiver**
Classification Sought: **Immigration and Nationality Act 203(b)(2)(B)**

Forms	• Form G-1450 in the amount of $715 towards I-140 form filling fee • Form G-1450 in the amount of $300 towards Asylum Program Fee • G-1145, E-Notification of Application/Petition Acceptance • Form G-28, Notice of Entry of Appearance as Attorney or Accredited Representative • Form I-140: Immigrant Petition for Alien Worker • ETA-9089
Petition Cover Letter	• Summary of Cover Letter • Petition Cover Letter • Exhibit List
Exhibit A	Petitioner's Resume

Exhibit B
ELIGIBILITY CRITERIA
	Advanced Degree Professional:
	• Certificate of master's degree Military Operations
	• Bachelor's in military sciences – Diploma and Transcript
	• Evaluation of Academics Credential
	• Work Records:
	  ○ Employment Verification Letter from Omini Taxi Aereo
	  ○ Aircrew Flight Logbook Certification
	  ○ Flight Hours Statement from BHS Helicopter Services

Exhibit C
NATIONAL INTEREST WAIVER
	C.I – First Prong – Substantial Merit and National Importance:
	• Business Plan for Vaguard Aviation Training
	• Industry Research and Government Initiatives
	C.II – Second Prong – Well-Positioned to Advance the Proposed Endeavor:
	• The Brazilian Federal Aviation Agency (ANAC) licenses
	• Other courses and certificates related to the proposed endeavor
	• Recognition for achievements in the field – awards and honors
	• Certificate of participation as a Judge Member – Federal Military Justice
	• Full Member ID card – Sao Paulo Aeroclub
	• Certificate of membership – ABRAPHE
	• Letters of Support:
	  ○ Mr. Raul Rodrigues de Oliveira
	  ○ Mr. Jose Carlos Braga de Avellar
	  ○ Mr. Lourenco William da Silva Ribeiro Pinho
	  ○ Mr. Luiz Fernando Estorilho Barganha

	○ Mr. Ricardo Jose Nigiri ● Proof of High Salary and Financial Feasibility: ○ Foreign Tax Return 2023/2024 ○ Foreign Tax Return 2024/2025 ○ Salary Statement Omini Taxi Aereo S.A. ○ Geographic, occupation-specific salary survey ○ Bank Account Statement
Exhibit D **PERSONAL DOCUMENTS FOR PETITIONER AND DERIVATIVES**	● Birth Certificate and Corresponding Translation ● Passport's Biometrics Page ● U.S. Visa Page ● Social Security Number ● Marriage Certificate and Corresponding Translation ● Derivative's Birth Certificate and Corresponding Translation ● Derivative's Passport Biometrics Page ● Derivative's U.S. Visa Page

e-Notification of Application/Petition Acceptance

Department of Homeland Security
U.S. Citizenship and Immigration Services

USCIS
Form G-1145

What Is the Purpose of This Form?

Use this form to request an electronic notification (e-Notification) when U.S. Citizenship and Immigration Services accepts your immigration application. This service is available for applications filed at a USCIS Lockbox facility.

General Information

Complete the information below and clip this form to the first page of your application package. You will receive one e-mail and/or text message for each form you are filing.

We will send the e-Notification within 24 hours after we accept your application. Domestic customers will receive an e-mail and/or text message; overseas customers will only receive an e-mail. Undeliverable e-Notifications cannot be resent.

The e-mail or text message will display your receipt number and tell you how to get updated case status information. It will not include any personal information. The e-Notification does not grant any type of status or benefit; rather it is provided as a convenience to customers.

USCIS will also mail you a receipt notice (I-797C), which you will receive within 10 days after your application has been accepted; use this notice as proof of your pending application or petition.

USCIS Privacy Act Statement

AUTHORITIES: The information requested on this form is collected pursuant to section 103(a) of the Immigration and Nationality Act, as amended INA section 101, et seq.

PURPOSE: The primary purpose for providing the information on this form is to request an electronic notification when USCIS accepts immigration form. The information you provide will be used to send you a text and/or email message.

DISCLOSURE: The information you provide is voluntary. However, failure to provide the requested information may prevent USCIS from providing you a text and/or email message receipting your immigration form.

ROUTINE USES: The information provided on this form will be used by and disclosed to DHS personnel and contractors in accordance with approved routine uses, as described in the associated published system of records notices [**DHS/USCIS-007 - Benefits Information System and DHS/USCIS-001 - Alien File (A-File) and Central Index System (CIS)**, which can be found at **www.dhs.gov/privacy**]. The information may also be made available, as appropriate for law enforcement purposes or in the interest of national security.

Complete this form and clip it on top of the first page of your immigration form(s).

Applicant/Petitioner Full Last Name	Applicant/Petitioner Full First Name	Applicant/Petitioner Full Middle Name
GARCEZ LOTUFO	**Luiz Henrique**	**N/A**

Email Address	Mobile Phone Number (Text Message)
luizhglotufo@gmail.com	

Notice of Entry of Appearance as Attorney or Accredited Representative

Department of Homeland Security

DHS Form G-28
OMB No. 1615-0105
Expires 05/31/2021

Part 1. Information About Attorney or Accredited Representative

1. USCIS Online Account Number (if any)

► 0 0 7 4 9 2 6 2 5 4 3 8

Name of Attorney or Accredited Representative

2.a. Family Name (Last Name): HAVERROTH SILVA

2.b. Given Name (First Name): Otavio

2.c. Middle Name: N/A

Address of Attorney or Accredited Representative

3.a. Street Number and Name: PO Box 90487

3.b. ☐ Apt. ☐ Ste. ☐ Flr. N/A

3.c. City or Town: San Diego

3.d. State: CA **3.e.** ZIP Code: 92169 *(USPS ZIP Code Lookup)*

3.f. Province: N/A

3.g. Postal Code: N/A

3.h. Country: USA

Contact Information of Attorney or Accredited Representative

4. Daytime Telephone Number: 5102419336

5. Mobile Telephone Number (if any): 5102419336

6. Email Address (if any): otavio@legalhs.com

7. Fax Number (if any): N/A

Part 2. Eligibility Information for Attorney or Accredited Representative

Select **all applicable** items.

1.a. ☒ I am an attorney eligible to practice law in, and a member in good standing of, the bar of the highest courts of the following states, possessions, territories, commonwealths, or the District of Columbia. If you need extra space to complete this section, use the space provided in **Part 6. Additional Information**.

Licensing Authority: California

1.b. Bar Number (if applicable): 343486

1.c. I (select **only one** box) ☒ am not ☐ am subject to any order suspending, enjoining, restraining, disbarring, or otherwise restricting me in the practice of law. If you are subject to any orders, use the space provided in **Part 6. Additional Information** to provide an explanation.

1.d. Name of Law Firm or Organization (if applicable): HS Law Corp

2.a. ☐ I am an accredited representative of the following qualified nonprofit religious, charitable, social service, or similar organization established in the United States and recognized by the Department of Justice in accordance with 8 CFR part 1292.

2.b. Name of Recognized Organization: N/A

2.c. Date of Accreditation (mm/dd/yyyy): N/A

3. ☐ I am associated with N/A, the attorney or accredited representative of record who previously filed Form G-28 in this case, and my appearance as an attorney or accredited representative for a limited purpose is at his or her request.

4.a. ☐ I am a law student or law graduate working under the direct supervision of the attorney or accredited representative of record on this form in accordance with the requirements in 8 CFR 292.1(a)(2).

4.b. Name of Law Student or Law Graduate: N/A

Part 3. Notice of Appearance as Attorney or Accredited Representative

If you need extra space to complete this section, use the space provided in **Part 6. Additional Information**.

This appearance relates to immigration matters before (select **only one** box):

1.a. ☒ U.S. Citizenship and Immigration Services (USCIS)

1.b. List the form numbers or specific matter in which appearance is entered.

I-140 ETA-9089

2.a. ☐ U.S. Immigration and Customs Enforcement (ICE)

2.b. List the specific matter in which appearance is entered.

N/A

3.a. ☐ U.S. Customs and Border Protection (CBP)

3.b. List the specific matter in which appearance is entered.

N/A

4. Receipt Number (if any)

► N/A

5. I enter my appearance as an attorney or accredited representative at the request of the (select **only one** box):

☐ Applicant ☒ Petitioner ☐ Requestor

☐ Beneficiary/Derivative ☐ Respondent (ICE, CBP)

Information About Client (Applicant, Petitioner, Requestor, Beneficiary or Derivative, Respondent, or Authorized Signatory for an Entity)

6.a. Family Name (Last Name): GARCEZ LOTUFO

6.b. Given Name (First Name): Luiz Henrique

6.c. Middle Name: N/A

7.a. Name of Entity (if applicable)

N/A

7.b. Title of Authorized Signatory for Entity (if applicable)

N/A

8. Client's USCIS Online Account Number (if any)

► N/A

9. Client's Alien Registration Number (A-Number) (if any)

► A- N/A

Client's Contact Information

10. Daytime Telephone Number

+5512996826912

11. Mobile Telephone Number (if any)

+5512996826912

12. Email Address (if any)

luizhglotufo@gmail.com

Mailing Address of Client

NOTE: Provide the client's mailing address. **Do not** provide the business mailing address of the attorney or accredited representative **unless** it serves as the safe mailing address on the application or petition being filed with this Form G-28.

13.a. Street Number and Name: PO Box 90487

13.b. ☐ Apt. ☐ Ste. ☐ Flr. N/A

13.c. City or Town: San Diego

13.d. State: CA **13.e.** ZIP Code: 92169

13.f. Province: N/A

13.g. Postal Code: N/A

13.h. Country

USA

Part 4. Client's Consent to Representation and Signature

Consent to Representation and Release of Information

I have requested the representation of and consented to being represented by the attorney or accredited representative named in **Part 1.** of this form. According to the Privacy Act of 1974 and U.S. Department of Homeland Security (DHS) policy, I also consent to the disclosure to the named attorney or accredited representative of any records pertaining to me that appear in any system of records of USCIS, ICE, or CBP.

Part 4. Client's Consent to Representation and Signature (continued)

Options Regarding Receipt of USCIS Notices and Documents

USCIS will send notices to both a represented party (the client) and his, her, or its attorney or accredited representative either through mail or electronic delivery. USCIS will send all secure identity documents and Travel Documents to the client's U.S. mailing address.

If you want to have notices and/or secure identity documents sent to your attorney or accredited representative of record rather than to you, please select **all applicable** items below. You may change these elections through written notice to USCIS.

1.a. ☒ I request that USCIS send original notices on an application or petition to the business address of my attorney or accredited representative as listed in this form.

1.b. ☒ I request that USCIS send any secure identity document (Permanent Resident Card, Employment Authorization Document, or Travel Document) that I receive to the U.S. business address of my attorney or accredited representative (or to a designated military or diplomatic address in a foreign country (if permitted)).

NOTE: If your notice contains Form I-94, Arrival-Departure Record, USCIS will send the notice to the U.S. business address of your attorney or accredited representative. If you would rather have your Form I-94 sent directly to you, select **Item Number 1.c.**

1.c. ☐ I request that USCIS send my notice containing Form I-94 to me at my U.S. mailing address.

Signature of Client or Authorized Signatory for an Entity

2.a. Signature of Client or Authorized Signatory for an Entity

➡ [signature]

2.b. Date of Signature (mm/dd/yyyy) 05/05/2026

Part 5. Signature of Attorney or Accredited Representative

I have read and understand the regulations and conditions contained in 8 CFR 103.2 and 292 governing appearances and representation before DHS. I declare under penalty of perjury under the laws of the United States that the information I have provided on this form is true and correct.

1. a. Signature of Attorney or Accredited Representative

[signature]

1.b. Date of Signature (mm/dd/yyyy) 05/05/2026

2.a. Signature of Law Student or Law Graduate

N/A

2.b. Date of Signature (mm/dd/yyyy) N/A

Part 6. Additional Information

If you need extra space to provide any additional information within this form, use the space below. If you need more space than what is provided, you may make copies of this page to complete and file with this form or attach a separate sheet of paper. Type or print your name at the top of each sheet; indicate the **Page Number**, **Part Number**, and **Item Number** to which your answer refers; and sign and date each sheet.

1.a Family Name (Last Name): GARCEZ LOTUFO

1.b. Given Name (First Name): Luiz Henrique

1.c. Middle Name: N/A

2.a. Page Number: N/A **2.b.** Part Number: N/A **2.c.** Item Number: N/A

2.d. N/A

3.a. Page Number: N/A **3.b.** Part Number: N/A **3.c.** Item Number: N/A

3.d. N/A

4.a. Page Number: N/A **4.b.** Part Number: N/A **4.c.** Item Number: N/A

4.d. N/A

5.a. Page Number: N/A **5.b.** Part Number: N/A **5.c.** Item Number: N/A

5.d. N/A

6.a. Page Number: N/A **6.b.** Part Number: N/A **6.c.** Item Number: N/A

6.d. N/A

Immigrant Petition for Alien Workers

Department of Homeland Security
U.S. Citizenship and Immigration Services

USCIS Form I-140
OMB No. 1615-0015
Expires 02/28/2027

For USCIS Use Only	Fee Stamp	Priority Date	Consulate	Action Block

Classification

- ☐ 203(b)(1)(A) Alien of Extraordinary Ability
- ☐ 203(b)(1)(B) Outstanding Professor or Researcher
- ☐ 203(b)(1)(C) Multinational Executive or Manager
- ☐ 203(b)(2) Member of Professions with Advanced Degree/Exceptional Ability
- ☐ 203(b)(3)(A)(i) Skilled Worker
- ☐ 203(b)(3)(A)(ii) Professional
- ☐ 203(b)(3)(A)(iii) Other Worker

Certification

- ☐ National Interest Waiver (NIW)
- ☐ Schedule A, Group I
- ☐ Schedule A, Group II

Remarks

To be completed by an Attorney or Accredited Representative (if any).	☒ Select this box if Form G-28 or Form G-28I is attached.	Attorney State Bar Number (if applicable)	Attorney or Accredited Representative USCIS Online Account Number (if any)
		343486	0 0 7 4 9 2 6 2 5 4 3 8

► **START HERE - Type or print in black ink.**

Part 1. Information About the Person or Organization Filing This Petition

If an individual is filing this petition, answer **Item Numbers 1.a. - 1.c.** If a company or organization is filing this petition, answer **Item Number 2.**

1.a. Family Name (Last Name): GARCEZ LOTUFO

1.b. Given Name (First Name): Luiz Henrique

1.c. Middle Name: N/A

2. Company or Organization Name: N/A

Mailing Address

(USCIS ZIP Code Lookup)

3.a. In Care Of Name: Otavio Haverroth Silva

3.b. Street Number and Name: PO Box 90487

3.c. ☐ Apt. ☐ Ste. ☐ Flr. N/A

3.d. City or Town: San Diego

3.e. State: CA **3.f.** ZIP Code: 92169

3.g. Province: N/A

3.h. Postal Code: N/A

3.i. Country: USA

Other Information

4. IRS Employer Identification Number (EIN)
► N/A

5. Are you a nonprofit organized as tax exempt or a governmental research organization? ☐ Yes ☒ No

6. Do you currently employ a total of 25 or fewer full-time equivalent employees in the United States, including all affiliates or subsidiaries of this company/organization? ☒ Yes ☐ No

7. U.S. Social Security Number (SSN) (if any)
► 6 3 1 6 0 8 2 7 9

8. USCIS Online Account Number (if any)
► N/A

Part 2. Petition Type

This petition is being filed for (select **only one** box):

1.a. ☐ An alien of extraordinary ability.

1.b. ☐ An outstanding professor or researcher.

1.c. ☐ A multinational executive or manager.

1.d. ☐ A member of the professions holding an advanced degree or an alien of exceptional ability (who is **NOT** seeking a National Interest Waiver (NIW)).

1.e. ☐ A professional (at a minimum, possessing a bachelor's degree or a foreign degree equivalent to a U.S. bachelor's degree).

Part 2. Petition Type (continued)

1.f. ☐ A skilled worker (requiring at least two years of specialized training or experience).

1.g. ☐ Any other worker (requiring less than two years of training or experience).

1.h. ☒ An alien applying for an NIW (who **IS** a member of the professions holding an advanced degree or an alien of exceptional ability).

This petition is being filed (select **only one** box):

2.a. ☐ To amend a previously filed petition.

Previous Petition Receipt Number

► N/A

2.b. ☐ For the Schedule A, Group I or II designation.

Part 3. Information About the Person for Whom You Are Filing

1.a. Family Name (Last Name): GARCEZ LOTUFO

1.b. Given Name (First Name): Luiz Henrique

1.c. Middle Name: N/A

Mailing Address

2.a. In Care Of Name: Otavio Haverroth Silva

2.b. Street Number and Name: PO Box 90487

2.c. ☐ Apt. ☐ Ste. ☐ Flr. N/A

2.d. City or Town: San Diego

2.e. State: CA **2.f.** ZIP Code: 92169

2.g. Province: N/A

2.h. Postal Code: N/A

2.i. Country: USA

Other Information

3. Date of Birth (mm/dd/yyyy): 10/05/1964

4. City/Town/Village of Birth: Taubate

5. State or Province of Birth: Sao Paulo

6. Country of Birth: Brazil

7. Country of Citizenship or Nationality: Brazil

8. Alien Registration Number (A-Number) (if any)

► A- N/A

9. U.S. SSN (if any) ► 631 608 279

Information About His or Her Last Arrival in the United States

If the person for whom you are filing is in the United States, provide the following information.

10. Date of Last Arrival (mm/dd/yyyy): N/A

11.a. Form I-94 Arrival-Departure Record Number

► N/A

11.b. Expiration Date of Authorized Stay Shown on Form I-94 (mm/dd/yyyy): N/A

11.c. Status on Form I-94 (for example, class of admission, or paroled, if paroled): N/A

12. Passport Number: N/A

13. Travel Document Number: N/A

14. Country of Issuance for Passport or Travel Document: N/A

15. Expiration Date for Passport or Travel Document (mm/dd/yyyy): N/A

Part 4. Processing Information

Provide the following information for the person named in **Part 3.** (select **only one** box):

1.a. ☒ Alien will apply for a visa abroad at a U.S. Embassy or U.S. Consulate at:

1.b. City or Town: Rio de Janeiro

1.c. Country: Brazil

2.a. ☐ Alien is in the United States and will apply for adjustment of status to that of lawful permanent resident.

Part 4. Processing Information (continued)

2.b. Alien's current country of residence or, if now in the United States, last country of permanent residence abroad.

Brazil

If you provided a United States address in **Part 3.**, provide the person's foreign address in **Item Numbers 3.a. - 3.f.**:

3.a. Street Number and Name: 597 Dr Emilio Winther St

3.b. ☒ Apt. ☐ Ste. ☐ Flr. Block 2 Apt 53

3.c. City or Town: Taubate

3.d. Province: Sao Paulo

3.e. Postal Code: 12030000

3.f. Country: Brazil

If the person's native alphabet is other than Roman letters, type or print the person's foreign name and address in the native alphabet in **Item Numbers 4.a. - 5.g.**:

4.a. Family Name (Last Name): N/A

4.b. Given Name (First Name): N/A

4.c. Middle Name: N/A

Mailing Address

5.a. In Care Of Name: N/A

5.b. Street Number and Name: N/A

5.c. ☐ Apt. ☐ Ste. ☐ Flr. N/A

5.d. City or Town: N/A

5.e. Province: N/A

5.f. Postal Code: N/A

5.g. Country: N/A

If you answer "Yes" to **Item Numbers 6.a. - 10.**, provide the case number, office location, date of decision, and disposition of the decision in the space provided in **Part 11. Additional Information**.

6.a. Are you filing any other petitions or applications with this Form I-140? ☐ Yes ☒ No

6.b. If you answered "Yes" **to Item Number 6.a.**, select all applicable boxes:

- ☐ Form I-485
- ☐ Form I-131
- ☐ Form I-765
- ☐ Other (Provide an explanation in **Part 11. Additional Information**.)

7. Is the person for whom you are filing in removal proceedings? ☐ Yes ☒ No

8. Has any immigrant visa petition ever been filed by or on behalf of this person? ☐ Yes ☒ No

9. Are you filing this petition without an original labor certification because the original labor certification was previously submitted in support of another Form I-140? ☐ Yes ☒ No

10. If you are filing this petition without an original labor certification, are you requesting that U.S. Citizenship and Immigration Services (USCIS) request a duplicate labor certification from the Department of Labor (DOL)? ☐ Yes ☒ No

Part 5. Additional Information About the Petitioner

Type of petitioner (select **only one** box):

1.a. ☐ Employer

1.b. ☒ Self

1.c. ☐ Other (For example, Lawful Permanent Resident, U.S. citizen or any other person filing on behalf of the alien)

N/A

If a company or an organization is filing this petition, provide the following information:

2. Type of Business: N/A

3. Date Established (mm/dd/yyyy): N/A

4. Current Number of U.S. Employees: N/A

5. Gross Annual Income $ N/A

6. Net Annual Income $ N/A

7. NAICS Code ► N/A

8. Labor Certification DOL Case Number: N/A

Part 5. Additional Information About the Petitioner (continued)

9. Labor Certification DOL Filing Date (mm/dd/yyyy)

N/A

10. Labor Certification Expiration Date (mm/dd/yyyy)

N/A

If an individual is filing this petition, provide the following information.

11. Occupation

Airline Transport Pilot Helicopter

12. Annual Income $ N/A

Part 6. Basic Information About the Proposed Employment

1. Job Title

General and Operations Managers

2. SOC Code ▶ 11 - 1021

3. Nontechnical Job Description

See page 8.

4. Is this a full-time position? ☒ Yes ☐ No

5. If the answer to **Item Number 4.** is "No," how many hours per week for the position?

N/A

6. Is this a permanent position? ☒ Yes ☐ No

7. Is this a new position? ☒ Yes ☐ No

8. Wages (Specify hour, week, month, or year):

$ 100,000.00 per year

Worksite Location

For **Item Numbers 9.a. - 9.e.**, provide the address where the person will work if different from the address provided in **Part 1.**

9.a. Street Number and Name: To be determined

9.b. ☐ Apt. ☐ Ste. ☐ Flr. To be determined

9.c. City or Town: Houston

9.d. State: TX **9.e.** ZIP Code: To be determined

Part 7. Information About the Spouse and All Children of the Person for Whom You Are Filing

For **Part 7.**, provide information on the spouse and all children related to the individual for whom you are filing this petition. Also, note if the individual will apply for a visa abroad or adjustment of status as the dependent of the individual for whom the petition is filed. If you need extra space to provide information about additional family members, use the space provided in **Part 11. Additional Information**.

Person 1

1.a. Family Name (Last Name): FARIA DOS SANTOS LOTUFO

1.b. Given Name (First Name): Silvia Regina

1.c. Middle Name: N/A

2. Date of Birth (mm/dd/yyyy): 05/18/1968

3. Country of Birth

Brazil

4. Relationship: Spouse

5. Is he or she applying for adjustment of status? ☐ Yes ☒ No

6. Is he or she applying for a visa abroad? ☒ Yes ☐ No

Person 2

7.a. Family Name (Last Name): DOS SANTOS LOTUFO

7.b. Given Name (First Name): Maria Clara

7.c. Middle Name: N/A

8. Date of Birth (mm/dd/yyyy): 01/05/2009

9. Country of Birth

Brazil

10. Relationship: Daughter

11. Is he or she applying for adjustment of status? ☐ Yes ☒ No

12. Is he or she applying for a visa abroad? ☒ Yes ☐ No

Part 7. Information About Spouse and All Children of the Person for Whom You Are Filing (continued)

Person 3

13.a. Family Name (Last Name) N/A

13.b. Given Name (First Name) N/A

13.c. Middle Name N/A

14. Date of Birth (mm/dd/yyyy) N/A

15. Country of Birth
N/A

16. Relationship N/A

17. Is he or she applying for adjustment of status? ☐ Yes ☐ No

18. Is he or she applying for a visa abroad? ☐ Yes ☐ No

Person 4

19.a. Family Name (Last Name) N/A

19.b. Given Name (First Name) N/A

19.c. Middle Name N/A

20. Date of Birth (mm/dd/yyyy) N/A

21. Country of Birth
N/A

22. Relationship N/A

23. Is he or she applying for adjustment of status? ☐ Yes ☐ No

24. Is he or she applying for a visa abroad? ☐ Yes ☐ No

Person 5

25.a. Family Name (Last Name) N/A

25.b. Given Name (First Name) N/A

25.c. Middle Name N/A

26. Date of Birth (mm/dd/yyyy) N/A

27. Country of Birth
N/A

28. Relationship N/A

29. Is he or she applying for adjustment of status? ☐ Yes ☐ No

30. Is he or she applying for a visa abroad? ☐ Yes ☐ No

Person 6

31.a. Family Name (Last Name) N/A

31.b. Given Name (First Name) N/A

31.c. Middle Name N/A

32. Date of Birth (mm/dd/yyyy) N/A

33. Country of Birth
N/A

34. Relationship N/A

35. Is he or she applying for adjustment of status? ☐ Yes ☐ No

36. Is he or she applying for a visa abroad? ☐ Yes ☐ No

Part 8. Contact Information, Certification, and Signature of the Petitioner or Authorized Signatory

Petitioner or Authorized Signatory's Contact Information

1.a. Petitioner's or Authorized Signatory's Family Name (Last Name)

GARCEZ LOTUFO

1.b. Petitioner's or Authorized Signatory's Given Name (First Name)

Luiz Henrique

2. Petitioner's or Authorized Signatory's Title

N/A

3. Petitioner's or Authorized Signatory's Daytime Telephone Number

+5512996826912

4. Petitioner's or Authorized Signatory's Mobile Telephone Number (if any)

+5512996826912

5. Petitioner's or Authorized Signatory's Email Address (if any)

luizhglotufo@gmail.com

Petitioner's or Authorized Signatory's Certification and Signature

If filing this petition on behalf of an organization, I certify that I am authorized to do so by the organization:

a. I reviewed and provided or authorized all of the responses and information in my petition;

b. I understood all of the responses and information contained in, and submitted with, my petition; and

c. All of the responses and information were complete, true, and correct at the time of filing

Furthermore, I authorize the release of any information from any and all of my records as authorized signatory and the petitioner's records that USCIS may need to determine the petitioner's eligibility for an immigration request and to other entities and persons where necessary for the administration and enforcement of U.S. immigration law.

6.a. Petitioner's or Authorized Signatory's Signature



6.b. Date of Signature (mm/dd/yyyy) 05/05/2026

Part 9. Interpreter's Contact Information, Certification, and Signature

Interpreter's Full Name

1.a. Interpreter's Family Name (Last Name)

N/A

1.b. Interpreter's Given Name (First Name)

N/A

2. Interpreter's Business or Organization Name

N/A

Interpreter's Contact Information

3. Interpreter's Daytime Telephone Number

N/A

4. Interpreter's Mobile Telephone Number (if any)

N/A

5. Interpreter's Email Address (if any)

N/A

Interpreter's Certification and Signature

I certify, under penalty of perjury, that I am fluent in English and N/A, and I have interpreted every question on the petition and Instructions and interpreted the petitioner's or authorized signatory's answers to the questions in that language, and the petitioner or authorized signatory informed me that they understood every instruction, question, and answer on the petition.

6.a. Interpreter's Signature

N/A

6.b. Date of Signature (mm/dd/yyyy) N/A

Part 10. Contact Information, Certification, and Signature of the Person Preparing this Petition, if Other Than the Petitioner or Authorized Signatory

Preparer's Full Name

1. Preparer's Family Name (Last Name)

HAVERROTH SILVA

Preparer's Given Name (First Name)

Otavio

2. Preparer's Business or Organization Name

HS Law Corp

Preparer's Contact Information

3. Preparer's Daytime Telephone Number

5102419336

4. Preparer's Mobile Telephone Number (if any)

5102419336

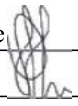
5. Preparer's Email Address (if any)

otavio@legalhs.com

Preparer's Certification and Signature

I certify, under penalty of perjury, that I prepared this petition for the petitioner or authorized signatory at their request and with express consent and that all of the responses and information contained in and submitted with the petition are complete, true, and correct and reflects only information provided by the petitioner or authorized signatory. The petitioner or authorized signatory reviewed the responses and information and informed me that they understand the responses and information in or submitted with the petition.

6. Preparer's Signature



Date of Signature (mm/dd/yyyy) 05/05/2026

Part 11. Additional Information

If you need extra space to provide any additional information within this petition, use the space below. If you need more space than what is provided, you may make copies of this page to complete and file with this petition or attach a separate sheet of paper. Type or print your name and A-Number (if any) at the top of each sheet; indicate the **Page Number**, **Part Number**, and **Item Number** to which your answer refers; and sign and date each sheet.

1. Family Name (Last Name): GARCEZ LOTUFO

Given Name (First Name): Luiz Henrique

Middle Name: N/A

2. IRS EIN ► N/A

3.

Page Number	Part Number	Item Number
4	6	3

Leads company strategy and aviation training operations, guiding program development and aligning activities with safety standards and business goals. Oversees teams and resources to ensure efficient operations, manages partnerships and business development, and ensures compliance with aviation regulations and industry best practices.

4.

Page Number	Part Number	Item Number
N/A	N/A	N/A

N/A

5.

Page Number	Part Number	Item Number
N/A	N/A	N/A

N/A

6.

Page Number	Part Number	Item Number
N/A	N/A	N/A

N/A

7.

Page Number	Part Number	Item Number
N/A	N/A	N/A

N/A

Employment OMB Approval: 1205-0451
Expiration Date: 02/28/2029

Application for Permanent Employment Certification
Form ETA-9089 – Final Determination: Permanent Employment Certification Approval
U.S. Department of Labor

PERMANENT EMPLOYMENT CERTIFICATION APPROVAL

A. U.S. Government Agency Use Only

Pursuant to the provisions of Sections 212(a)(5)(A) of the Immigration and Nationality Act, as amended, the Department hereby certifies that there are not sufficient workers who are able, willing, and qualified, and who will be available at the time of application for a visa and admission into the United States and place needed to fill the job opportunities for which certification is sought, and the permanent employment of the foreign worker will not adversely affect the wages and working conditions of workers in the United States similarly employed.

Therefore, by virtue of the signature below, the Department hereby acknowledges granting certification for the following *Application for Permanent Employment Certification* (Form ETA-9089):

1. DOL Case Number		2. Case Status
3. Employer Legal Business Name		4. Employer FEIN
5. Foreign Worker's Last (family) Name		
6. Foreign Worker's First (given) Name		
7. Foreign Worker's Middle Name(s)		
8. Job Title		
9. SOC Code	10. SOC Occupational Title	
Labor Certification Validity Information		
11. Filing Date	12. Determination Date	13. Expiration Date
14. Department of Labor Office of Foreign Labor Certification *(electronic signature)*		

Pursuant to 20 CFR 656, the aforementioned permanent labor certification is valid only for the job opportunity, the foreign worker, and the area of intended employment specified on the approved Form ETA-9089, including all appendices and any modifications approved by the Department. The aforementioned filing date on this approved *Application for Permanent Employment Certification*, established under 20 CFR 656.17(c), may be used as a priority date by the Department of Homeland Security and the Department of State, as appropriate. This approved *Application for Permanent Employment Certification* will expire if not filed in support of *Immigrant Petition for Alien Workers* (Form I-140) with the Department of Homeland Security by the aforementioned expiration date.

The foreign worker covered by this approved *Application for Permanent Employment Certification* has declared under Section B below, under penalty of perjury, that the foreign worker has read and reviewed every page of Appendix A for this approved Form ETA-9089, takes full responsibility for the accuracy of all information contained therein, and intends to accept permanent employment in the job opportunity specified on the approved Form ETA-9089, including all appendices, offered by the employer if granted a visa or an adjustment of status based on this permanent labor certification.

The employer covered by this approved *Application for Permanent Employment Certification* has declared under Section D below under penalty of perjury that it has read and reviewed every page of this approved Form ETA-9089, including all appendices, and takes full responsibility for the accuracy of all information contained therein and all documentation supporting this approved *Application for Permanent Employment Certification*, including any representations made by the employer's authorized preparer, agent or attorney, as applicable.

Application for Permanent Employment Certification
Form ETA-9089 – Final Determination: Permanent Labor Certification Approval
U.S. Department of Labor

B. Foreign Worker Declaration

I declare under penalty of perjury that I have read and reviewed all information contained in Appendix A of this approved Form ETA-9089, and that to the best of my knowledge the information contained therein is true and accurate. *I understand that to knowingly and/or willfully furnish materially false information in the preparation of this form and any supplement thereto or to aid, abet, or counsel another to do so is a federal offense punishable by fines, imprisonment, or both (18 U.S.C. 2, 1001, 1546, 1621).*

I **further declare** that I am the person identified under Section A, Fields 5, 6, and 7 above. I did not participate in any activities involving the interviewing or consideration of U.S. workers and intend to accept permanent employment in the job opportunity specified on this approved Form ETA-9089, including all appendices, offered by the employer if granted a visa or an adjustment of status based on this permanent labor certification.

1. Signature *	2. Date Signed *
	07/28/2026

C. Attorney or Agent Declaration

I declare under penalty of perjury that I am an attorney for the employer, or that I am an employee of, or hired by, the employer listed in Section C of the Form ETA-9089, and that I have been designated by that employer in accordance with 20 CFR 656.10(b) to act on its behalf in connection with this application.

I hereby certify that I have provided to the employer the entire Form ETA-9089, appendices, and all supporting documentation for review and to the best of my knowledge the information contained herein is true and accurate, including the employer's declaration regarding activities that I have undertaken on the employer's behalf in connection with this application. *I understand that to knowingly and/or willfully furnish materially false information in the preparation of this form and any supplement hereto or to aid, abet, or counsel another to do so is a federal offense punishable by fines, imprisonment, or both (18 U.S.C. 2, 1001, 1546, 1621).*

1. Attorney or Agent's Last (family) Name *	2. First (given) Name *	3. Middle Initial §
HAVERROTH SILVA	Otavio	N/A
4. Firm/Business Name §		
HS Law Corp		
5. Signature *		6. Date Signed *
		07/28/2026

D. Employer Declaration

I hereby designate the agent or attorney identified in Section C (if any) of the Form ETA-9089 to represent me for the purpose of labor certification and, by virtue of my signature in Field 5 below, **I take full responsibility** for the accuracy of any representations made by my agent or attorney, and my designated preparer identified in Section C above, on every page of the Form ETA-9089, including all appendices, and documentation supporting this application.

I declare under penalty of perjury that I have read and reviewed this application, including every page of the Form ETA-9089, appendices, and supporting documentation, and that to the best of my knowledge the information contained therein is true and accurate. *I understand that to knowingly and/or willfully furnish materially false information in the preparation of this form and any supplement thereto or to aid, abet, or counsel another to do so is a federal offense punishable by fines, imprisonment, or both (18 U.S.C. 2, 1001, 1546, 1621).*

1. Last (family) Name *	2. First (given) Name *	3. Middle Initial §
4. Title *		
5. Signature *		6. Date Signed *

For Public Burden Statement, see the Instructions for Form ETA-9089.

OMB Approval: 1205-0451
Expiration Date:02/28/2029

Application for Permanent Employment Certification
Form ETA-9089 – Appendix A: Foreign Worker Information
U.S. Department of Labor

FOREIGN WORKER INFORMATION

A. Foreign Worker Contact Information

1. Foreign Worker's Last (family) Name * GARCEZ LOTUFO		
2. Foreign Worker's First (given) Name * Luiz Henrique		
3. Foreign Worker's Middle Name(s) * N/A		
4. Address 1 *(current)* * 597, Dr. Emilio Winther St		
5. Address 2 *(apartment/suite/floor and number)* ***§*** Block 2, Apt 53		
6. City * Taubate	7. State * N/A	8. Postal Code * 12030000
9. Country * Brazil	10. Province ***§*** Sao Paulo	
11. Date of Birth *(mm/dd/yyyy)* * 10/05/1964	12. Class of Admission * N/A	13. Alien Registration Number (A#) (if applicable) * N/A
14. Country of Birth * Brazil		
15. Country of Citizenship or Nationality * Brazil		

B. Foreign Worker Education §

a. Educational Attainment Information 1

1. Education: U.S. Diploma/Degree attained relevant to the job opportunity ☐ None ☐ High School/GED ☐ Associate ☐ Bachelor's ■ Master's ☐ Doctorate (PhD) ☐ Other Degree (JD, MD, etc.)	
1a. If "Other Degree" in question 1, specify the diploma/degree attained N/A	
1b. Specify major(s) and/or field(s) of study (may list more than one related major and more than one field) Military Operations	
1c. Name of Institution that issued the degree/diploma Officers' Training School	
1d. Name of Country of institution identified in question 1c Brazil	1e. Month/year attained (*mm/yyyy*) 11/1996

b. Educational Attainment Information 2

1. Education: U.S. Diploma/Degree attained relevant to the job opportunity ☐ None ☐ High School/GED ☐ Associate ■ Bachelor's ☐ Master's ☐ Doctorate (PhD) ☐ Other Degree (JD, MD, etc.)	
1a. If "Other Degree" in question 1, specify the diploma/degree attained N/A	
1b. Specify major(s) and/or field(s) of study (may list more than one related major and more than one field) Military Sciences	
1c. Name of Institution that issued the degree/diploma Military Academy of Agulhas Negras	
1d. Name of Country of Institution identified in question 1c Brazil	1e. Month/year attained (*mm/yyyy*) 12/1988

PERM Case Number: _____ Case Status: _____ Determination Date: _____ Expiration Date: _____

***B. Foreign Worker Education** (continued)*

c. Educational Attainment Information 3

1. Education: U.S. Diploma/Degree attained relevant to the job opportunity ■ None ☐ High School/GED ☐ Associate ☐ Bachelor's ☐ Master's ☐ Doctorate (PhD) ☐ Other Degree (JD, MD, etc.)	
1a. If "Other Degree" in question 1, specify the diploma/degree attained	
1b. Specify major(s) and/or field(s) of study (may list more than one related major and more than one field)	
1c. Name of Institution that issued the degree/diploma	
1d. Name of Country of Institution identified in question 1c	1e. Month/year attained (*mm/yyyy*)

d. Educational Attainment Information 4

1. Education: U.S. Diploma/Degree attained relevant to the job opportunity ■ None ☐ High School/GED ☐ Associate's ☐ Bachelor's ☐ Master's ☐ Doctorate (PhD) ☐ Other Degree (JD, MD, etc.)	
1a. If "Other Degree" in question 1, specify the diploma/degree attained	
1b. Specify major(s) and/or field(s) of study (may list more than one related major and more than one field)	
1c. Name of Institution that issued the degree/diploma	
1d. Name of Country of Institution identified in question 1c	1e. Month/year attained (*mm/yyyy*)

e. Educational Attainment Information 5

1. Education: U.S. Diploma/Degree attained relevant to the job opportunity ■ None ☐ High School/GED ☐ Associate's ☐ Bachelor's ☐ Master's ☐ Doctorate (PhD) ☐ Other Degree (JD, MD, etc.)	
1a. If "Other Degree" in question 1, specify the diploma/degree attained	
1b. Specify major(s) and/or field(s) of study (may list more than one related major and more than one field)	
1c. Name of Institution that issued the degree/diploma	
1d. Name of Country of Institution identified in question 1c	1e. Month/year attained (*mm/yyyy*)

C. Foreign Worker Training Qualifications §

a. Training, Certification(s), and/or License(s) Information 1

1. Name of Institution/School/Training provider ODITC/3t Enermech
1a. Name of training, coursework, experience received **Helicopter Underwater Escape Training with Compressed Air Emergency Breathing System**

1b. Training/Certifications/licenses attained (if applicable)		
N/A		
1c. Start date of training (*mm/yyyy*)	1d. End date of training (*mm/yyyy*)	1e. Month/year awarded (*mm/yyyy*)
N/A	N/A	09/2025

b. Training, Certification(s), and/or License(s) Information 2

1. Name of Institution/School/Training provider		
Falck Safety Services		
1a. Name of training, coursework, experience received		
Helicopter Underwater Escape Training		
1b. Training/Certifications/Licenses attained (if applicable)		
N/A		
1c. Start date of training (*mm/yyyy*)	1d. End date of training (*mm/yyyy*)	1e. Month/year awarded (*mm/yyyy*)
N/A	N/A	12/2015

c. Training, Certification(s), and/or License(s) Information 3

1. Name of Institution/School/Training provider		
Brazilian Helicopters Services		
1a. Name of training, coursework, experience received		
EC225 Simulator		
1b. Training/certifications/licenses attained (if applicable)		
N/A		
1c. Start date of training (*mm/yyyy*)	1d. End date of training (*mm/yyyy*)	1e. Month/year awarded (*mm/yyyy*)
N/A	N/A	02/2014

D. Foreign Worker Training Qualifications §

a. Skills, Abilities, and Proficiencies 1

1. Name of Employer/Institution/School/Training Provider	
1a. Country	1b. State, Territory, or Province
1c. Description of specific skills, abilities, and/or proficiencies the foreign worker possesses or attained, which help establish whether the foreign worker meets the requirements identified for the job opportunity *(up to 1,500 characters)*	

b. Skills, Abilities, and Proficiencies 2

1. Name of Employer/Institution/School/Training Provider	
1a. Country	1b. State, Territory, or Province
1c. Description of specific skills, abilities, and/or proficiencies the foreign worker possesses or attained, which help establish whether the foreign worker meets the requirements identified for the job opportunity *(up to 1,500 characters)*	

E. Foreign Worker Work Experience §

a. Work Experience 1

1. Employer Name			
Omni Taxi Aereo S/A			
1a. Address 1			
200, Ave Paisagista Jose Silva Azevedo Neto			
1b. Address 2			
Block 3, Room 403, O2 Corporate & Offices			
1c. City or Town			1d. Postal Code
Rio de Janeiro			22775056
1e. Country		1f. State, Territory, or Province	
Brazil		Rio de Janeiro	
1g. Job Title			
Captain of Heavy Helicopter			
1h. Start Date *(mm/yyyy)*	1i. End Date *(mm/yyyy)*	1j. Present	1k. Hours Worked Per Week
2017	Current	■ Yes ☐ No	40

1l. Job Duties: Specify details of the job (work tasks performed, use of tools/equipment, supervision, etc.) (*up to 3,500 characters*)

At Omni Taxi Aereo S/A, Luiz Henrique performed flight operations in heavy-lift helicopters within offshore environments, ensuring operational safety and strict compliance with national and international civil aviation regulations. He conducted complex mission planning for passenger and cargo transport, including external loads under variable meteorological conditions, and led operational briefings to maintain adherence to technical protocols and standardized flight procedures. Furthermore, he supported and guided flight crews in emergency procedures, instrument navigation, and night flight while collaborating with maintenance, dispatch, and flight safety departments to contribute to the continuous improvement of internal processes and the company's safety culture.

For Public Burden Statement, see the Instructions for Form ETA-9089.

OMB Approval: 1205-0451
Expiration Date: 02/28/2029

SUPPLEMENTAL INFORMATION

A. Supplemental Information 1 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	**Foreign Worker Training Qualifications**

1b. Supplemental Information. *(up to 1,500 characters)*

Training, Certifications and/or License(s) Information

Name of Institution: Brazilian Helicopters Services
Name of Training: Ground School EC225
Month/Year awarded: 01/2014

B. Supplemental Information 2 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	**Foreign Worker Training Qualifications**

1b. Supplemental Information. *(up to 1,500 characters)*

Training, Certifications and/or Licenses(s) Information

Name of Institution: Army Aviation Training Center
Name of Training: Night Vision Goggles Flight Training Level 2
Month/Year awarded: 10/2007

For Public Burden Statement, see the Instructions for Form ETA-9089.

OMB Approval: 1205-0451
Expiration Date: 02/28/2029

Application for Permanent Employment Certification
Form ETA-9089 – Appendix C: Supplemental Information
U.S. Department of Labor

SUPPLEMENTAL INFORMATION

A. Supplemental Information 1 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	**Foreign Worker Training Qualifications**

1b. Supplemental Information. *(up to 1,500 characters)*

Training, Certifications and/or Licenses(s) Information

Name of Institution: Army Aviation Training Center
Name of Training: Night Vision Goggles Flight Training
Month/Year awarded: 05/2007

B. Supplemental Information 2 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	**Foreign Worker Training Qualifications**

1b. Supplemental Information. *(up to 1,500 characters)*

Training, Certifications and/or Licenses(s) Information

Name of Institution: Army Aviation Training Center
Name of Training: Advanced Aviation Course
Month/Year awarded: 10/2005

For Public Burden Statement, see the Instructions for Form ETA-9089.

PERM Case Number: _____ Case Status: _____ Determination Date: _____ Expiration Date: _____

OMB Approval: 1205-0451
Expiration Date: 02/28/2029

SUPPLEMENTAL INFORMATION

A. Supplemental Information 1 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	**Foreign Worker Training Qualifications**

1b. Supplemental Information. *(up to 1,500 characters)*

Training, Certifications and/or License(s) Information

Name of Institution: Command of The Naval Air Force-Training and Instruction Center
Name of Training: Underwater Aircraft Escape Training Unit
Month/Year awarded: 03/2005

B. Supplemental Information 2 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	**Foreign Worker Training Qualifications**

1b. Supplemental Information. *(up to 1,500 characters)*

Training, Certifications and/or License(s) Information

Name of Institution: Sikorsky
Name of Training: S-70 Maintenance Managers Course
Month/Year awarded: 10/2002

For Public Burden Statement, see the Instructions for Form ETA-9089.

OMB Approval: 1205-0451
Expiration Date: 02/28/2029

SUPPLEMENTAL INFORMATION

A. Supplemental Information 1 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	**Foreign Worker Training Qualifications**

1b. Supplemental Information. *(up to 1,500 characters)*

Training, Certifications and/or Licenses(s) Information

Name of Institution: Jungle Warfare Training Center
Name of Training: Jungle Adaptation Training for Military Observer Mission Ecuador-Peru
Month/Year awarded: 06/1998

B. Supplemental Information 2 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	**Foreign Worker Training Qualifications**

1b. Supplemental Information. *(up to 1,500 characters)*

Training, Certifications and/or Licenses(s) Information

Name of Institution: United States Army Aviation Center
Name of Training: UH-60 Aviator Qualification Course
Month/Year awarded: 04/1998

For Public Burden Statement, see the Instructions for Form ETA-9089.

SUPPLEMENTAL INFORMATION

A. Supplemental Information 1 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	**Foreign Worker Training Qualifications**

1b. Supplemental Information. *(up to 1,500 characters)*

Training, Certifications and/or Licenses(s) Information

Name of Institution: Army Aviation Training Center
Name of Training: Combat Pilot Course
Month/Year awarded: 06/1997

B. Supplemental Information 2 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	**Foreign Worker Training Qualifications**

1b. Supplemental Information. *(up to 1,500 characters)*

Training, Certifications and/or Licenses(s) Information

Name of Institution: Army Aviation Training Center
Name of Training: Tactical Pilot Training
Month/Year awarded: 04/1997

For Public Burden Statement, see the Instructions for Form ETA-9089.

SUPPLEMENTAL INFORMATION

A. Supplemental Information 1 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	**Foreign Worker Training Qualifications**

1b. Supplemental Information. *(up to 1,500 characters)*

Training, Certifications and/or Licenses(s) Information

Name of Institution: Aircraft Accident Investigation and Prevention Division
Name of Training: Flight Safety Training
Month/Year awarded: 08/1995

B. Supplemental Information 2 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	**Foreign Worker Training Qualifications**

1b. Supplemental Information. *(up to 1,500 characters)*

Training, Certifications and/or Licenses(s) Information

Name of Institution: Coastal and Anti-Aircraft Artillery School
Name of Training: Anti-Aircraft Artillery Training for Military Pilots
Month/Year awarded: 03/1995

For Public Burden Statement, see the Instructions for Form ETA-9089.

OMB Approval: 1205-0451
Expiration Date: 02/28/2029

Application for Permanent Employment Certification
Form ETA-9089 – Appendix C: Supplemental Information
U.S. Department of Labor

SUPPLEMENTAL INFORMATION

A. Supplemental Information 1 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	Foreign Worker Training Qualifications

1b. Supplemental Information. *(up to 1,500 characters)*

Training, Certifications and/or Licenses(s) Information

Name of Institution: School of Civil Aviation
Name of Training: INVA-Airplane Flight Instructor course
Month/Year awarded: 04/1994

B. Supplemental Information 2 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	Foreign Worker Training Qualifications

1b. Supplemental Information. *(up to 1,500 characters)*

Training, Certifications and/or Licenses(s) Information

Name of Institution: Ministry of Aeronautics
Name of Training: The UH-50 Helicopter Pilot Course
Month/Year awarded: 06/1992

For Public Burden Statement, see the Instructions for Form ETA-9089.

OMB Approval: 1205-0451
Expiration Date: 02/28/2029

Application for Permanent Employment Certification
Form ETA-9089 – Appendix C: Supplemental Information
U.S. Department of Labor

SUPPLEMENTAL INFORMATION

A. Supplemental Information 1 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	Foreign Worker Training Qualifications

1b. Supplemental Information. *(up to 1,500 characters)*

Training, Certifications and/or Licenses(s) Information

Name of Institution: Air Force Academy
Name of Training: Basic Theoretical Preparation Course
Month/Year awarded: 11/1991

B. Supplemental Information 2 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	Foreign Worker Training Qualifications

1b. Supplemental Information. *(up to 1,500 characters)*

Training, Certifications and/or Licenses(s) Information

Name of Institution: General Penha Brasil Parachute Training Center
Name of Training: Basic Paratrooper Course
Month/Year awarded: 02/1989

For Public Burden Statement, see the Instructions for Form ETA-9089.

PERM Case Number: _____ Case Status: _____ Determination Date: _____ Expiration Date: _____

OMB Approval: 1205-0451
Expiration Date: 02/28/2029

Application for Permanent Employment Certification
Form ETA-9089 – Appendix C: Supplemental Information
U.S. Department of Labor

SUPPLEMENTAL INFORMATION

A. Supplemental Information 1 §

1. Section and Item Number	E	1a. Section Name or Category of Supplemental Information	Foreign Worker Work Experience

1b. Supplemental Information. *(up to 1,500 characters)*

Work Experience

Employer Name:Brazilian Helicopter Services (BHS)
Employer Address:199-202, Ave Embaixador Abelardo Bueno. Rio de Janeiro - Rio de Janeiro/Brazil
Postal Code:22775022
Job Title:First Officer
Start Date - End Date: 2014 - 2016
Job Duties:At BHS, Luiz Henrique conducted offshore operations on oil platforms using EC 225 aircraft, specializing in passenger transport and providing critical operational support within complex maritime environments.

B. Supplemental Information 2 §

1. Section and Item Number	E	1a. Section Name or Category of Supplemental Information	Foreign Worker Work Experience

1b. Supplemental Information. *(up to 1,500 characters)*

Work Experience

Employer Name: Brazilian Army
Employer Address: 2135, Estrada Municipal dos Remedios. Taubate - Sao Paulo/Brazil
Postal Code: 12086000
Job Title: Military Pilot and Flight Instructor
Start Date - End Date: 1992-2013
Job Duties:At the Brazilian Army, Luiz Henrique served as a Flight Instructor, accumulating over 1,336 hours of instructional flight time while training and mentoring Army Aviation pilots. He held leadership positions as Senior Squadron Manager for the S-70A Black Hawk fleet in Manaus, Project Manager for the implementation of Night Vision Goggle (NVG) flight training across Army Aviation, and Head of the Employment and Flight Section, where he oversaw pilot training and specialization programs. He also served as an S-70A Black Hawk Pilot and Deputy Operations Officer during the Military Observer Mission (MOMEP) between Ecuador and Peru, supporting multinational operational and mission planning activities.

For Public Burden Statement, see the Instructions for Form ETA-9089.

SUMMARY OF COVER LETTER

Petitioner: GARCEZ LOTUFO, Luiz Henrique
Type of Petition: I-140, EB-2 National Interest Waiver
Classification Sought: Immigration and Nationality Act 203(b)(2)(B)

This petition is submitted on behalf of Mr. Luiz Henrique Garcez Lotufo, an advanced degree professional with over thirty years of progression post baccalaureate experience in aviation, narrowly helicopter operations. Mr. Lotufo holds the equivalent of a bachelor's degree in military sciences from an accredited institution in the United States. He has unique operational knowledge and extensive aviation experience, combined with his leadership and instructional background in aviation safety, emergency-response readiness, workforce development, and mission-critical operational reliability.

Mr. Lotufo seeks an exemption from the labor certification requirement under *Matter of Dhanasar*, 26 I&N Dec. 884 (AAO 2016), as his qualifications and proposed endeavor fulfill the three-prong test for the National Interest Waiver:

1. **Substantial Merit and National Importance**: Mr. Lotufo's proposed endeavor is to improve aviation safety and operational performance in the United States through advanced pilot training programs, standardized operational frameworks, and structured safety solutions focused on emergency response, specialized aviation operations, and complex flight environments. His initiative aims to support workforce development, including specialized training programs designed to prepare U.S. aviation professionals and military veterans for high-demand civilian aviation roles.

2. **Well-Positioned to Advance the Proposed Endeavor**: His extensive academic training and progressive professional experience, several licenses, international certifications, recognitions for his achievements, and support to move his endeavor forward demonstrate his technical expertise necessary to lead his company, Vanguard Aviation Training's, operations in the United States.

3. **Balancing of Benefits to the United States**: Given Mr. Lotufo's strong qualifications, professional track record, and alignment with key U.S. priorities, The United States aviation sector will benefit from his extensive experience and proposed endeavor focused on advanced aviation training, operational safety, emergency-response aviation, and mission-critical helicopter operations. Through his company, Mr. Lotufo will support workforce development, specialized pilot training, operational standardization, and aviation safety initiatives that directly align with important national interests involving public safety, emergency preparedness, and operational resilience. Moreover, his entrepreneurial endeavor is expected to generate positive economic impacts, create employment opportunities, and strengthen workforce readiness in specialized aviation sectors.

Considering these factors, Mr. Lotufo meets all qualifications for eligibility for the second preference employment based category (EB-2) and meets all the requirements to be granted a National Interest Waiver. We respectfully request a thorough review of the enclosed cover letter and supporting documentation, which demonstrate his qualifications and the projected impact of his efforts. Favorable adjudication of this petition will enable Mr. Luiz Henrique Garcez Lotufo to make significant contributions to the Sciences – Aviation Operation and Safety field in the U.S.

Thank you for your attention to this matter.

Sincerely,

Otavio Haverroth
California Bar # 343486

+1 510 714 0100 +1 619 960 8262 PO BOX 90487 / ZIP CODE 92169

June 2, 2026

Via USPS

USCIS
Attn: I-140
P.O. Box 660128
Dallas, TX 75266-0128

Re: EB-2 immigrant petition with request for a National Interest Waiver

Petitioner: GARCEZ LOTUFO, Luiz Henrique
Type of Petition: I-140, EB-2 National Interest Waiver
Classification Sought: Immigration and Nationality Act 203(b)(2)(B)

SOC CODE: 11-1021.00 (General and Operation Managers)

Dear USCIS Officer:

This letter is respectfully submitted in support of Mr. Luiz Henrique Garcez Lotufo (herein Mr. Lotufo) Immigrant Petition for Alien Worker (I-140) demonstrating his fulfillment of the EB-2 classification objective requirements with a request for a National Interest Waiver and providing evidentiary support.

1. **EB-2 Eligibility - Advanced Degree Professional**

Mr. Lotufo is eligible for the EB-2 classification as a member of the professions holding an advanced degree. Under 8 CFR § 204.5(k)(3)(i)(B), a beneficiary may satisfy the advanced degree requirement by demonstrating possession of either: (1) a United States master's degree or higher, or a foreign equivalent degree evaluated as equivalent to a U.S. master's degree or higher; or (2) a United States bachelor's degree, or a foreign equivalent degree, followed by at least five years of progressive post-baccalaureate experience in the specialty.

Mr. Lotufo satisfies the regulatory requirement through his foreign equivalent master's degree. Specifically, his foreign academic credentials are **equivalent in the United States to both a "Bachelor of Science in Military Sciences" and a "Master of Arts in Military Operations" from accredited U.S. institutions of higher education** (**Exhibit B**). In addition, Mr. Lotufo's professional records demonstrate that he has over five years (30 + years) of progressive post baccalaureate experience in the field of **Sciences – Aviation Operation and Safety**.

Accordingly, the evidence demonstrates that Mr. Lotufo possesses a foreign equivalent advanced degree plus over 5 years of progressive post baccalaureate experience and therefore satisfies the educational threshold for EB-2 classification under 8 CFR § 204.5(k)(3)(i)(B).

Mr. Lotufo is a highly experienced **Airline Transport Helicopter Pilot** with more than 7,378 flight hours accumulated throughout a distinguished military and civilian aviation career spanning over **three decades**. He possesses advanced qualifications in helicopter operations,

aviation safety, offshore transport missions, tactical military aviation, and pilot instruction, **including more than 2,808 hours as Pilot-in-Command and over 1,336 instructional flight hours as a Flight Instructor**. His academic qualifications include a bachelor's degree in military sciences and a master's degree in military operations, complemented by numerous advanced aviation certifications and specialized operational training involving Black Hawk helicopter operations, Night Vision Goggles (NVG) flight procedures, combat aviation, offshore aviation, and flight safety management[1].

Following the completion of his bachelor's-level military education, Mr. Lotufo accumulated more than three decades of post-baccalaureate experience with progressive responsibilities in the highly specialized field of aviation operations, helicopter flight instruction, and aviation safety management. His professional trajectory reflects a continuous advancement in technical complexity, operational responsibility, leadership, and specialized expertise within **both military and civilian** aviation environments.

Mr. Lotufo began his post-degree professional career as a military aviator within the Brazilian Army Aviation, where he served from 1992 through 2013 in increasingly advanced operational and leadership capacities. During this period, he not only accumulated substantial flight experience as a helicopter pilot, but also served as a Flight Instructor with more than 1,336 instructional flight hours, demonstrating a level of expertise and trust reserved for highly qualified aviation professionals. His responsibilities progressively evolved to include positions such as **Senior Squadron Manager** for the S-70A Black Hawk squadron in Manaus[2], **Project Manager** for the implementation of Night Vision Goggles (NVG) flight training within Army Aviation, and **Head of the Employment and Flight Section** responsible for the training and specialization of Army Aviation pilots. These positions required increasingly sophisticated operational judgment, technical aviation expertise, instructional leadership, and aviation safety oversight.

In addition, the progressive nature of Mr. Lotufo's experience is evidenced by his advanced qualifications in highly specialized military and civilian helicopter operations. Over the course of his career, he obtained certifications and operational qualifications involving combat aviation, Black Hawk operations, offshore helicopter transportation, external load missions, underwater aircraft escape procedures, Night Vision Goggles operations, and complex tactical flight procedures. He also served as a helicopter pilot and Deputy Operations Officer during the Military Observer Mission Ecuador–Peru (MOMEP), an international peacekeeping operation involving complex aviation and operational coordination responsibilities.

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[1] Black Hawk helicopter operations, Night Vision Goggles (NVG) flight procedures, combat aviation, offshore aviation, and flight safety management are highly specialized areas of rotary-wing aviation involving advanced tactical flight operations, complex operational environments, and elevated aviation safety and risk-management responsibilities.

[2] S-70A Black Hawk Squadron operations in Manaus, Brazil involved advanced military helicopter missions in complex Amazon operational environments, including tactical transport, personnel insertion, logistics support, and aviation operations requiring elevated levels of technical proficiency, mission coordination, and operational safety management.

After transitioning into the civilian aviation sector, Mr. Lotufo continued to advance professionally through increasingly sophisticated offshore aviation operations involving heavy-lift helicopters in complex maritime environments. He served as **First Officer** for Brazilian Helicopter Services (BHS), conducting offshore operations on oil platforms using EC225 aircraft[3] before ultimately becoming **Captain** of the Sikorsky S-92 at Omni Táxi Aéreo, one of the leading offshore helicopter operators in Brazil and Guyana. In this role, he performs high-level passenger and external cargo transport missions in remote operational environments while maintaining strong emphasis on operational safety, crew resource management, and procedural standardization.

In sum, Mr. Lotufo's career demonstrates a steady advancement from military pilot to instructor, operational manager, aviation training leader, specialized tactical operator, offshore pilot, and ultimately captain of advanced heavy-lift helicopter systems. Such progression reflects increasing levels of technical specialization, operational authority, leadership responsibility, and aviation safety expertise well beyond that ordinarily encountered in the aviation field. Accordingly, the evidence establishes that Mr. Lotufo possesses well over five years of progressive post-baccalaureate experience in his specialty, clearly satisfying the advanced degree professional requirement under 8 CFR § 204.5(k)(3)(i)(B).

As a precaution, it is important to highlight that Mr. Lotufo also meets the requirements for classification as a professional with exceptional ability, as he satisfies at least three of the regulatory criteria under 8 CFR 204.5(k). Therefore, even as an alternative basis, he would still qualify for the EB-2 immigrant preference category under the exceptional ability standard, pursuant to the INA 203(b)(2)(A).

Furthermore, as per the evidence submitted herein, Mr. Lotufo's case qualifies for the labor certification waiver due to national interest pursuant *Matter of Dhanasar 26 I&N Dec. 884 (AAO 2016), Int. Dec. 3882.*

1. Mr. Lotufo's Proposed Endeavor has **substantial merit** and **national importance**. His plan is to **improve aviation safety and operational performance in the United States through advanced pilot training programs, standardized operational frameworks, and structured safety solutions focused on emergency response, specialized aviation operations, and complex flight environments**. His initiative will support workforce development, including specialized training programs designed to prepare U.S. aviation professionals and military veterans for high-demand civilian aviation roles. By enhancing pilot readiness, operational standardization, and safety performance in complex aviation environments, **his work will contribute to public safety, workforce preparedness, and the reliability of critical aviation operations in the United States**.

   To achieve his goal, Mr. Lotufo will establish the company **Vanguard Aviation Training**, in Houston, Texas **(Exhibit C.I.)**, which will be centered around providing specialized aviation training and operational solutions focused on enhancing safety,

[3] EC225 aircraft are advanced heavy-lift, twin-engine helicopters primarily utilized for offshore transport operations, search-and-rescue missions, and complex aviation environments requiring high levels of operational safety, technical proficiency, and long-range flight capability.

efficiency, and workforce readiness in complex helicopter operations across the United States.

2. Based on his educational background, extensive experience in military and civilian aviation, offshore helicopter operations, flight instruction, aviation safety management, support, and commitment to drive his endeavor forward, **Mr. Lotufo is well-positioned to advance his proposed endeavor**. His extensive academic training and progressive professional experience demonstrate his ability to deliver advanced training solutions, operational standardization strategies, and safety-focused aviation programs in areas critical to the United States' public safety, aviation workforce development, emergency-response readiness, and operational reliability, equipping him with the exceptional technical expertise necessary to lead Vanguard Aviation Training's proposed operations in the United States.

3. **On balance**, it would be **beneficial to the United States** to waive the job offer and labor certification requirements. The United States aviation sector will benefit from Mr. Lotufo's extensive expertise, and his proposed endeavor will contribute to improving aviation safety standards, strengthening operational reliability, enhancing workforce preparedness, and promoting the implementation of advanced training and operational standardization practices in sectors involving emergency-response aviation, specialized helicopter operations, and mission-critical flight activities. Moreover, Mr. Lotufo will be self-employed through Vanguard Aviation Training in a manner that will not adversely affect U.S. workers. To the contrary, his work is expected to support workforce development initiatives, facilitate the transition of military veterans into civilian aviation careers, generate economic activity, create specialized employment opportunities, and provide high-level aviation training and safety services that are critically important to public safety and operational efficiency. Accordingly, the national importance and urgency of Mr. Lotufo's contributions to aviation safety, pilot training, and operational risk mitigation substantially outweigh the need for labor certification, particularly given his proposed role as **General Manager and Aviation Training & Operations Director** of his U.S. company.

   Recent White House action directing an immediate assessment of aviation safety further confirms that aviation safety, personnel competence, qualification standards, and safety protocols are matters of national priority in the United States, directly aligning with Mr. Lotufo's proposed endeavor to strengthen pilot training, operational standardization, and safety performance in complex aviation environments.[4]

The content of this petition letter is divided into chapters to clearly address all required criteria.

2. National Interest Waiver – NIW

The decision issued on December 21, 2017 by the USCIS Administrative Appeals Office (AAO), in *Matter of Dhanasar*, 26 I. & N. Dec. 884 (AAO 2016), established a new analytical framework in order to determine if a foreign national pursuing an employment-based permanent residence under the EB-2 category as a member of the professions holding an advanced degree

[4] https://www.whitehouse.gov/presidential-actions/2025/01/immediate-assessment-of-aviation-safety/

or as an individual of exceptional ability in the sciences, arts or business is eligible for the discretionary job offer and labor certification requirements waiver in the US national interest.

Under the test, a petitioner eligible for the second preference category has the burden of proof to show that he also meets three prongs **by preponderance of evidence ("more likely than not")** to be granted a NIW. The prongs are the following: (1) The alien's proposed endeavor has both substantial merit and national importance; (2) The alien is well-positioned to advance the proposed endeavor; and (3) On balance, it would be beneficial to the US to waive the job offer and labor certifications requirements. If all three elements are met, USCIS may approve the national interest waiver as a matter of discretion.

2.1. First Prong - *Proposed Endeavor's Substantial Merit and National Importance*

In evaluating whether a proposed endeavor satisfies the first prong of the National Interest Waiver framework, USCIS examines whether the petitioner has established, by a preponderance of the evidence, that the endeavor possesses substantial merit and national importance. The proposed endeavor must be analyzed with specificity and should not be defined merely by reference to the beneficiary's general occupation or professional field. Rather, the inquiry focuses on the particular work the beneficiary intends to undertake within that field, including the concrete activities, services, initiatives, or projects that the beneficiary proposes to carry out in the United States. Accordingly, the evidence should demonstrate not only the nature of the beneficiary's profession, but also how the specific proposed undertaking possesses broader significance and potential impact within the relevant industry, sector, or area of national concern[5].

Description of Proposed Endeavor

Mr. Lotufo will invest and direct the operations of Vanguard Aviation Training (hereafter also referred to as the Company) in the United States, having the State of Texas as a starting point. The company **will be committed to improve aviation safety and operational performance in the United States through advanced pilot training programs, standardized operational frameworks, and structured safety solutions focused on emergency response, specialized aviation operations, and complex flight environments.** The petitioner's proposed endeavor will bring a positive ripple effect to the broader economy through his contributions to public safety, workforce preparedness, and the reliability of critical aviation operations in the United States. Upon the approval of his immigrant visa, Mr. Lotufo will serve as the company's General Manager and Aviation Training & Operations Director**.**

The company will be headquartered in Houston, Texas, a strategic location with strong demand for aviation services supporting transportation, emergency response, and critical infrastructure operations. The physical location allows the company to serve a wide range of aviation operators while maintaining proximity to high-demand operational environments. The company's primary objective is to support organizations operating in complex and high-risk aviation environments where operational reliability, pilot proficiency, technical preparedness, and safety performance are critically important. These environments include emergency-response operations, specialized

[5] USCIS Policy Manual, Vol. 6, Part F, Ch. 5(A)(3), available at https://www.uscis.gov/policy-manual/volume-6-part-f-chapter-5.

aviation missions, offshore and remote transportation activities, and other flight operations requiring advanced technical capabilities and elevated levels of operational standardization and risk management. The company will serve as the principal vehicle through which Mr. Lotufo will advance his proposed endeavor in the United States by applying the extensive expertise he developed throughout more than three decades of military aviation, offshore helicopter operations, tactical flight procedures, aviation safety management, and pilot instruction.

The company's primary market focus will include **aviation operators and helicopter service providers** that require highly trained pilots, structured operational frameworks, and robust aviation safety systems to maintain operational consistency and reduce risk in demanding operational environments. Mr. Lotufo will support these operators through advanced pilot training programs, NVG instruction, aviation safety initiatives, and operational standardization services designed to improve flight performance, mission readiness, and operational reliability. The company will further support **emergency-response and public-safety organizations** engaged in search and rescue (SAR), disaster response, and mission-critical aviation operations by providing specialized training and operational support aimed at enhancing emergency-response capabilities and safety outcomes.

Additionally, the company will collaborate with **aviation training organizations, flight schools, and instructional institutions** that require advanced training modules and structured methodologies beyond standard pilot certification programs. The company will provide specialized aviation instruction, standardized training frameworks, and operational support services designed to improve technical proficiency and workforce preparedness in specialized aviation roles. Mr. Lotufo, through his company, also intends to support **government-affiliated aviation programs, defense-related aviation units, and aviation contractors** through advanced training solutions, operational standardization services, and workforce development initiatives, including programs specifically designed to facilitate the transition of military personnel into civilian aviation careers.

The company will implement structured methodologies focused on operational reliability, workforce development, pilot preparedness, safety performance, and risk reduction while incorporating best practices derived from both military and civilian aviation systems. The core business activities will include:

- **Advanced Pilot Training and NVG Operations**: Delivery of advanced helicopter training programs, including specialized instruction in Night Vision Goggles (NVG) operations, tactical flight procedures, and complex flight scenarios designed to improve pilot proficiency, mission readiness, and safety performance.

- **Aviation Safety and Risk Management Solutions**: Implementation of structured aviation safety practices, operational risk assessment support, and development of operational frameworks intended to reduce aviation risks and improve operational safety outcomes.

- **Operational Standardization and Efficiency Enhancement**: Development and implementation of standardized operational procedures, instructional methodologies, and

operational frameworks aimed at improving consistency, efficiency, procedural compliance, and reliability in aviation operations.

- **Emergency Response, Search and Rescue (SAR), and Workforce Development Programs**: Delivery of specialized training initiatives focused on emergency-response aviation, search and rescue operations, mission-critical aviation support, and workforce development programs designed to prepare aviation professionals and military veterans for highly technical civilian aviation roles.

In the long term, the company intends to establish itself as a specialized provider of advanced aviation training and operational solutions throughout the United States. The company plans to expand advanced training programs, including NVG and mission-based operational training, strengthen aviation safety and operational standardization services, support workforce development in high-demand aviation sectors, expand partnerships with aviation operators and training institutions, and scale service delivery nationwide. Accordingly, Vanguard Aviation Training places itself as a concrete operational mechanism through which Mr. Lotufo will execute and expand his proposed endeavor by advancing aviation safety, pilot preparedness, operational reliability, workforce development, and emergency-response readiness across the United States aviation sector.

For a detailed description of each service to be provided by Mr. Lotufo's U.S. company, please refer to **Exhibit C.I. at 5-10.**

How this specific proposed endeavor aligns with petitioner's previous experiences

Mr. Lotufo's professional trajectory demonstrates extensive expertise in helicopter operations, aviation safety, pilot instruction, and operational standardization acquired throughout more than three decades of progressively responsible experience in both military and civilian aviation environments. Throughout his career, he accumulated more than 7,300 flight hours, including over 2,800 hours as Pilot-in-Command and more than 1,300 instructional flight hours, while operating advanced multi-engine helicopters such as the S-70A Black Hawk, EC225, and SK92 in complex and mission-critical operational scenarios. His background combines advanced operational experience, leadership, and technical instruction in areas directly aligned with Vanguard Aviation Training's proposed services involving advanced pilot training, Night Vision Goggle ("NVG") operations, aviation safety frameworks, operational standardization, and workforce development **(Exhibit A).**

During his tenure with the Brazilian Army, Mr. Lotufo held significant leadership and instructional roles, including flight instructor, squadron commander, and senior operational officer, where he contributed directly to the development and implementation of advanced training programs and operational standardization initiatives. Notably, he played an important role in structuring and implementing NVG flight training programs within military aviation, contributing to improved operational consistency, pilot preparedness, and aviation safety practices in highly complex operational environments. His operational expertise further includes tactical helicopter missions involving personnel insertion techniques, external load transport, search and rescue ("SAR") operations, and missions conducted in remote and high-risk

environments, including real-world rescue operations in the Andes and participation in international peacekeeping activities.

Mr. Lotufo subsequently expanded this expertise into the civilian aviation sector, where he continued operating in demanding flight environments as a helicopter captain responsible for passenger transport and logistics missions in remote operational settings with a strong emphasis on safety, procedural discipline, and operational reliability. His combined military and civilian aviation background uniquely positions him to understand the operational challenges faced by aviation operators, emergency-response organizations, and mission-critical aviation programs requiring highly trained personnel, structured operational procedures, and advanced risk-management practices. This practical experience directly aligns with Vanguard Aviation Training's mission to improve aviation safety, operational efficiency, and workforce readiness through advanced pilot training, operational standardization, and safety-focused aviation solutions.

Mr. Lotufo's prior experience demonstrates his ability to successfully execute and expand the proposed endeavor in the United States. The company's operational model specifically reflects the expertise Mr. Lotufo developed throughout his career by incorporating advanced helicopter training, NVG instruction, mission-based operational preparation, safety and risk mitigation strategies, and workforce development initiatives derived from both military and civilian aviation systems. The company's emphasis on emergency-response aviation, SAR operations, operational standardization, and veteran workforce transition programs directly corresponds to Mr. Lotufo's own operational and instructional background, making him exceptionally well positioned to lead the company as General Manager and Aviation Training & Operations Director.

Therefore, Mr. Lotufo is not simply seeking to launch a speculative commercial enterprise, but rather to operationalize and expand, through Vanguard Aviation Training, the advanced aviation training, operational leadership, and safety expertise he cultivated throughout decades of distinguished military and civilian aviation service. In this respect, the company serves as the concrete and scalable platform through which he will continue contributing to aviation safety, workforce development, operational standardization, and mission-critical aviation readiness in the United States.

Further analysis of Mr. Lotufo's education and professional background, which makes him well-positioned to drive his proposed endeavor forward and dives deep to show the close relation of his experience and proposed endeavor in the U.S., is provided in section 2.2 of this petition.

2.1.1. Substantial Merit of the Proposed Endeavor:

USCIS recognizes that a proposed endeavor may have substantial merit in a wide variety of fields, including business, entrepreneurship, science, technology, education, health, and culture, among others. In evaluating substantial merit, officers may also consider **the endeavor's prospective economic impact**; however, the absence of immediate or easily quantifiable economic benefits is not dispositive. As recognized in *Dhanasar*, endeavors may qualify even where their value is demonstrated through broader contributions to knowledge, safety, innovation, operational advancement, or public benefit, regardless of whether such contributions can be directly measured in economic terms at the outset.

Mr. Lotufo's proposed endeavor falls within the type of undertaking contemplated under the precedent decision as it involves the advancement of aviation safety, workforce development, operational standardization, and specialized technical training in a sector that **directly impacts public safety and mission-critical operations in the United States**. His field of expertise has clear substantial merit due to its direct relationship to emergency-response readiness, aviation reliability, transportation safety, and high-risk operational performance.

The United States is well known for its recognized aviation quality standards and depends heavily on specialized helicopter services, particularly in emergency response, public safety, search and rescue, and mission-critical aviation operations. These sectors require highly trained personnel, advanced operational capabilities, and strong safety-management practices, all of which align with Mr. Lotufo's expertise and position him to make significant contributions to the United States.

Helicopter operations are essential in time-sensitive and mission-critical environments where rapid response, operational reliability, and highly trained personnel are indispensable. Within this sector, demand for specialized helicopter services and advanced operational training continues to increase due to growing operational complexity. The North American helicopter market represented approximately $18.5 billion in 2024 and is projected to expand significantly over the coming years, **driven largely by increasing demand for emergency medical services ("EMS")**, **public safety operations, and specialized aviation activities**. In the United States alone, the commercial helicopter sector generates billions of dollars annually and continues to grow as aviation operators expand services involving emergency response, medical transport, disaster relief, infrastructure support, and specialized transportation activities.[6]

This type of aircraft operations are uniquely important in emergency preparedness and SAR operations because they are capable of operating in remote, inaccessible, or high-risk environments where traditional transportation methods may be ineffective or unavailable. Helicopters are heavily relied upon for emergency medical transport, disaster response, firefighting missions, law enforcement support, and homeland security activities. Medical services alone account for hundreds of thousands of patient transports annually in the United States, highlighting the critical importance of reliable helicopter operations in preserving public safety and emergency-response readiness[7].

As a result, organizations face growing pressure to improve pilot preparedness, operational and safety standards, as well as mission-readiness capabilities. Accordingly, there is a substantial and ongoing national need for advanced aviation training, operational support, and safety-focused solutions capable of strengthening emergency-response aviation, SAR readiness, and transportation reliability throughout the United States. Mr. Lotufo's proposed endeavor directly addresses these needs through specialized helicopter training, aviation safety initiatives, and

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[6] https://www.globenewswire.com/news-release/2026/01/05/3212999/28124/en/North-America-s-Helicopters-Market-to-Witness-6-89-CAGR-During-2025-2033-Analysis-of-Investment-Opportunities-Competitive-Strategies-and-Industry-Developments.html

[7] https://dataintelo.com/report/global-emergency-medical-services-ems-helicopter-market

operational standardization services specifically tailored to high-risk and mission-critical aviation environments.

Based on the market segmentation analysis **(Exhibit C.I. at 22)**, Mr. Lotufo's credentials uniquely position him to contribute meaningfully to high-impact sectors of the United States aviation industry through his proposed endeavor. Through his company, he intends to provide operationally focused training programs, aviation safety initiatives, workforce development services, and operational standardization frameworks designed to strengthen pilot preparedness, mission-readiness capabilities, and operational reliability among aviation organizations operating in complex environments. His international military and civilian aviation background provides valuable technical and operational perspectives derived from real-world emergency-response missions, SAR operations, tactical helicopter activities, and high-risk flight environments, allowing him to contribute specialized knowledge directly applicable to advanced aviation training and operational support services in the United States.

The industry analysis further establishes that the market segments targeted by his company, including advanced and specialized pilot training, emergency-response operations, SAR activities, workforce development programs, and operational standardization services, represent high-demand and strategically important sectors within the United States aviation ecosystem. Mr. Lotufo's extensive experience training pilots, implementing operational procedures, supervising mission-based operations, and supporting aviation safety initiatives directly aligns with these industry needs and positions him to strengthen workforce readiness and operational performance through scalable training and safety solutions.

For this industry, two points deserve special attention. First, Night Vision Goggles Operations (NVG) is a critical component of modern emergency-response and public-safety aviation. In an article published by Aviation Specialties Unlimited ("ASU"), a leading U.S.-based provider of NVG aviation solutions and FAA-recognized training services, the company explained that NVG technology has become **one of the most significant safety advancements in rotorcraft aviation, enabling safer nighttime operations in emergency medical services**, **search and rescue, law enforcement, firefighting, and disaster-response missions**. The article notes that NVGs substantially improve pilot situational awareness and operational effectiveness in low-light and high-risk environments, contributing directly to life-saving missions and public-safety readiness. ASU has also been selected to provide NVG-related training for FAA personnel, demonstrating that advanced NVG proficiency is recognized as an important aviation safety priority in the United States **(Exhibit C.I.).**

Second, Search and Rescue (SAR) is designated as Emergency Support Function #9 (ESF-9) under the National Response Framework **(Exhibit C.I.)**, which deploys federal SAR resources to provide life-saving assistance during disasters and emergencies. FEMA explains that ESF-9 coordinates specialized rescue resources to support state, local, tribal, and territorial authorities during incidents requiring rapid lifesaving operations.

Additionally, federal and state emergency-management plans repeatedly emphasize the need for specialized aviation assets, trained flight personnel, recurrent training, operational readiness, and coordination of air resources in SAR missions. These plans specifically reference the use of

aircraft, aviation support, rescue hoists, FLIR systems, air operations branches, and recurrent qualification training as essential components of SAR preparedness and response capabilities.

In Mr. Lotufo's case, this industry report is particularly persuasive **because his proposed endeavor is not simply to provide aviation training generally, but to strengthen operational readiness for rotary-wing aviation in emergency-response, SAR, and mission-critical environments through advanced pilot training, NVG instruction, operational standardization, and safety-focused methodologies**. His expertise directly relates to capabilities that federal emergency-management frameworks identify as necessary to support effective SAR operations and disaster-response preparedness.

2.1.2 National and Global Implications of the Proposed Endeavor

In evaluating whether a proposed endeavor satisfies the national importance requirement under the National Interest Waiver framework, USCIS does not limit its analysis to the beneficiary's occupational title, employer, or general professional field, but instead examines the **specific nature**, scope, and prospective impact of the proposed endeavor the beneficiary proposes to undertake in the United States.

The inquiry focuses on whether the petitioner has submitted probative and substantive evidence demonstrating how the proposed activities have broader implications beyond the immediate employer or clientele and are capable of producing meaningful benefits within the relevant industry, sector, or area of national concern. Consistent with USCIS policy guidance and administrative decisions interpreting *Dhanasar*, the analysis considers factors such as the endeavor's potential to advance public safety, operational efficiency, workforce development, technological progress, infrastructure reliability, or other matters of substantial national interest, even where the endeavor may be implemented through a private enterprise or specialized professional activity.

Mr. Lotufo's proposed endeavor through his company is to **improve aviation safety and operational performance in the United States through advanced pilot training programs, standardized operational frameworks, and structured safety solutions focused on emergency response, specialized aviation operations, and complex flight environments.** He will achieve his proposed endeavor by providing specialized aviation training and operational support services focused on rotary-wing aviation environments. His company's services will include advanced pilot and NVG training, aviation safety and risk-management solutions, operational standardization and efficiency enhancement programs, and specialized instruction for emergency-response and SAR operations. Additionally, the company will support workforce development initiatives designed to prepare aviation professionals and military veterans for highly technical civilian aviation roles through training programs.

The company's target are aviation operators, rotorcraft service providers, emergency-response organizations, aviation training institutions, and government-related aviation programs through advanced pilot instruction, NVG training, operational standardization, and safety-focused aviation solutions designed to improve mission readiness and operational reliability in complex flight environments. In the long term, the company aims to establish itself as a specialized provider of advanced aviation training and operational support services throughout the United

States by expanding mission-based training programs, strengthening aviation safety and workforce development initiatives, building strategic partnerships with aviation operators and training organizations, and scaling nationwide service delivery focused on emergency-response aviation, search and SAR operations, and specialized rotary-wing training.

Based on the description of Mr. Lotufo's specific proposed endeavor to the United States, it is evident that it transcends the boundaries of the industry and his prospective clients, serving as a tool for benefits in the areas of public safety, emergency preparedness, workforce development, and operational reliability within the United States aviation sector. The endeavor also possesses prospective economic impact by supporting high-demand aviation sectors, improving operational efficiency and safety performance, expanding specialized training services, and contributing to the broader aviation economy through scalable operational support and workforce training initiatives.

Public Safety Impact

Advanced rotary-wing aviation operations play a critical role in protecting public safety throughout the United States, particularly in sectors involving emergency medical transport, law enforcement aviation, disaster-response missions, firefighting, and SAR activities. These operations frequently occur in high-risk environments involving low visibility, nighttime operations, remote locations, and time-sensitive missions where pilot proficiency, operational discipline, and safety-focused training directly affect mission outcomes and human lives. Improved operational standardization, advanced pilot instruction, and specialized NVG training, services that will be provided by Mr. Lotufo's company, contribute to reducing operational risks, strengthening aviation safety, and improving the effectiveness of mission-critical aviation activities relied upon by public-safety organizations nationwide.

Emergency Preparedness Impact

Rotary-wing aviation structures are an essential component of national emergency preparedness and disaster-response infrastructure in the United States. Helicopters are widely used during hurricanes, floods, wildfires, medical evacuations, and other emergency situations requiring rapid deployment, aerial coordination, and access to remote or inaccessible areas. SAR and emergency-response missions require highly trained personnel capable of operating safely under extreme pressure and complex operational conditions. Advanced mission-based training, recurrent operational instruction, and standardized aviation procedures strengthen the readiness and reliability of aviation teams supporting disaster-response and life-saving operations, thereby enhancing the Nation's overall emergency-response capabilities. This is exactly one of the missions that is presented by Mr. Lotufo's company.

Workforce Development Impact

The aviation industry depends upon highly specialized technical training and advanced operational preparation to maintain a qualified and mission-ready workforce. Specialized aviation sectors such as emergency-response aviation, SAR operations, and advanced rotary-wing missions require personnel with operationally focused training beyond basic pilot certification. Workforce development initiatives that provide advanced operational instruction, recurrent proficiency training, and transition-focused programs for military veterans contribute to

strengthening the technical capabilities, preparedness, and long-term sustainability of the U.S. aviation workforce. These initiatives are particularly valuable because military aviation personnel often possess extensive operational experience that can be effectively integrated into civilian aviation sectors through structured training aligned with civilian operational standards.

Economic Impact

The aviation and helicopter operations industry represents a significant component of the United States economy, supporting transportation, public infrastructure, emergency-response operations, energy-sector logistics, public safety activities, and specialized commercial aviation services. Advanced training, operational standardization, and aviation safety initiatives contribute to economic productivity by improving operational efficiency, reducing operational risks, minimizing costly incidents, and supporting the reliability of mission-critical aviation services. Additionally, the expansion of specialized aviation training programs, workforce-development initiatives, and operational support services, such as the one proposed by Mr. Lotufo, contributes to broader economic activity through job creation, strategic industry partnerships, increased service capacity, and the strengthening of high-demand aviation sectors across the United States.

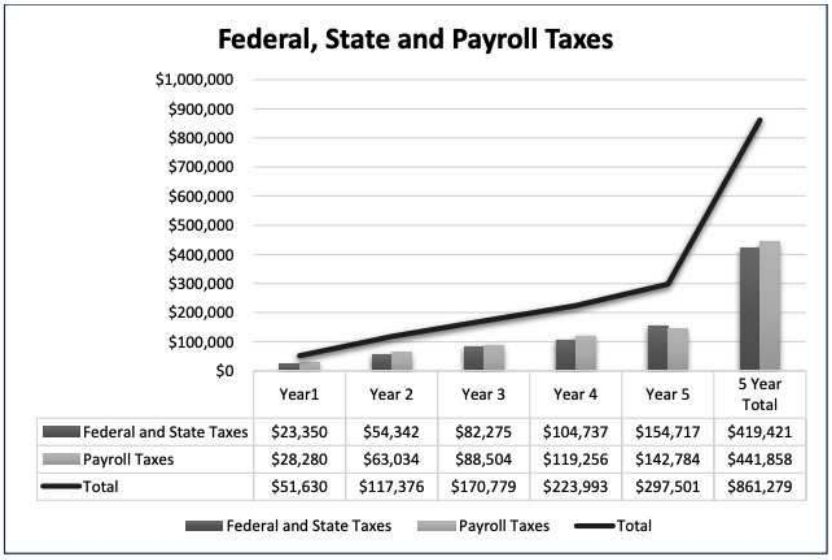
In summary, the evidence demonstrates that the specific proposed endeavor Mr. Lotufo intends to undertake clearly extends beyond providing isolated benefits to a particular employer, client, or private commercial entity. Rather, his proposed activities possess the potential to generate broader national-level benefits as his endeavor addresses matters directly connected to public safety, emergency preparedness, and the long-term operational effectiveness of sectors that play an essential role in the Nation's aviation infrastructure and emergency-response capabilities.

The Proposed Endeavor has significant potential to employ US workers or has other substantial economic effects, particularly in an economic depressed area

Vanguard Aviation Training is on a trajectory towards significant growth and economic contribution over the next five years. The detailed financial projections indicate a promising future, with sales, gross margins, and net profits all expected to rise steadily. This upward trend underscores the robustness of the business strategy and its potential within the market.

According to the company's financial projections **(Exhibit C.I. at 11)**, in its first year of operation, Vanguard Aviation Training is projected to generate approximately $510,000 in revenue, reflecting initial demand for specialized training services and operational support. As the company expands its client base and service capacity, revenues are expected to grow steadily, reaching approximately $2,510,628 by Year 5.

In addition, the company's five-year financial projections demonstrate the prospective economic impact of Mr. Lotufo's proposed endeavor. According to the business plan, Vanguard Aviation Training is expected to generate approximately $861,279 in total tax contributions over its first five years of operation, including approximately $419,421 in projected federal and state tax payments and approximately $441,858 in payroll-related taxes. These projections reflect anticipated business growth, workforce expansion, and increasing operational activity associated with the delivery of specialized aviation training and operational support services.



	Year1	Year 2	Year 3	Year 4	Year 5	5 Year Total
Federal and State Taxes	$23,350	$54,342	$82,275	$104,737	$154,717	$419,421
Payroll Taxes	$28,280	$63,034	$88,504	$119,256	$142,784	$441,858
Total	$51,630	$117,376	$170,779	$223,993	$297,501	$861,279

Figure 1. Projected Federal, State, and Payroll Tax Contributions Over Five Years, as reflected in the *Vanguard Aviation Training Business Plan* (Nextus Plan 2026, at 13).

Upon the approval of his immigrant visa, Mr. Lotufo will occupy the role of **General Manager and Aviation Training & Operations Director for his company**. In his leadership position and leveraging his remarkable knowledge and experience in the field, his primary duties and responsibilities, in brief, will include overseeing the company's strategic direction, operational management, and long-term growth initiatives within the aviation training sector. His responsibilities will also include supervising business operations, leading the development and implementation of advanced aviation training programs, managing partnerships with aviation operators, and training organizations, overseeing financial and operational performance, ensuring compliance with aviation safety standards and industry best practices, and directing business development and market expansion efforts focused on specialized aviation training and operational support services.

Moreover, the company's detailed description of services also forecasts that they expect to make gradual investments in personnel in the first years of operation: **by year 5, the company projects to employ 16 persons, including Mr. Lotufo.**

The company plans a phased expansion of its workforce to support its growth in the U.S. industry. The personnel plan reflects a structured and scalable hiring strategy designed to support the company's operational growth and long-term expansion within the United States aviation training sector. During Year 1, the company will prioritize the recruitment of personnel essential to establishing and supporting its initial operations, including Mr. Lotufo as General Manager & Aviation Training & Operations Director, a Flight Instructor (Helicopter), a Training Coordinator, a Business Development Manager, and an Administrative Manager. These positions will support the company's foundational activities.

As the company expands between Years 2 through 5, the company will progressively recruit additional specialized personnel aligned with the growth of its service portfolio and nationwide operational objectives. These future positions will include NVG Training Specialists, Aviation

Safety Specialists, Operational Support Specialists, Instructional Design Specialists, and Client Relations/Customer Success personnel. The company also anticipates expanding instructional and business-development functions as operational demand increases and strategic partnerships are established with aviation operators, emergency-response organizations, training institutions, and government-related aviation programs.

Furthermore, the personnel projections demonstrate the company's anticipated operational growth and economic impact. According to the business plan, the company expects to expand from 5 personnel in Year 1 to approximately 16 employees by Year 5, **with projected payroll increasing from approximately $282,800 in Year 1 to approximately $1.42 million by Year 5**. These progressive numbers reflect the company's scalable operational model and its long-term commitment to workforce development, specialized aviation training, and the expansion of safety-focused aviation services within the United States.

Personnel Plan					
	Year 1	Year 2	Year 3	Year 4	Year 5
General Manager & Aviation Training & Operations Director - Mr. Luiz Henrique Garcez Lotufo	$100,000	$115,000	$132,250	$152,087	$174,901
Flight Instructor (Helicopter)	$84,000	$88,200	$185,220	$194,481	$204,205
NVG Training Specialist	$0	$94,500	$99,225	$208,373	$218,791
Aviation Safety Specialist	$0	$75,600	$79,380	$83,349	$175,033
Operational Support Specialist	$0	$0	$66,150	$69,458	$145,861
Training Coordinator	$18,000	$56,700	$59,535	$125,024	$131,275
Instructional Design Specialist	$0	$69,300	$72,765	$76,403	$80,223
Business Development Manager	$72,000	$75,600	$79,380	$166,698	$175,033
Administrative Manager	$8,800	$55,440	$58,212	$61,123	$64,179
Client Relations / Customer Success	$0	$0	$52,920	$55,566	$58,344
Total People	5	8	11	14	16
Total Payroll	**$282,800**	**$630,340**	**$885,037**	**$1,192,561**	**$1,427,844**

Figure 2. Vanguard Aviation Training Projected Personnel Plan and Payroll Growth (Years 1–5), *Vanguard Aviation Training Business Plan* (Nextus Plan 2026, at 35).

Personnel Plan					
	Year 1	Year 2	Year 3	Year 4	Year 5
General Manager & Aviation Training & Operations Director - Mr. Luiz Henrique Garcez Lotufo	1	1	1	1	1
Flight Instructor (Helicopter)	1	1	2	2	2
NVG Training Specialist	0	1	1	2	2
Aviation Safety Specialist	0	1	1	1	2
Operational Support Specialist	0	0	1	1	2
Training Coordinator	1	1	1	2	2
Instructional Design Specialist	0	1	1	1	1
Business Development Manager	1	1	1	2	2
Administrative Manager	1	1	1	1	1
Client Relations / Customer Success	0	0	1	1	1
Total People	**5**	**8**	**11**	**14**	**16**

Figure 3. Vanguard Aviation Training Five-Year Personnel Growth Projections, as reflected in the *Vanguard Aviation Training Business Plan* (Nextus Plan 2026, at 36).

To conclude, the company will reach the total number of **16 direct employees by Year 5**. The Company also expects its payroll expenses to increase from $282,800 in Year 1 to $1,427,844 in Year 5. However, the indirect employment number can reach 24 jobs according to the EPI[8]. **For data on how these predictions are calculated, please refer to Exhibit C.I. at 48.**

Notwithstanding the company's hiring chart and financial forecast, it should be taken in consideration that *Dhanasar* expressly states that one can prove national importance through the "significant potential to employ U.S. workers". That is *not* the same as "**potential to employ a significant number of U.S. workers**" as the "significance" is in the "potential" or "probability", not in the "number of jobs" the endeavor may create.

Finally, Mr. Lotufo's proposed endeavor will also generate meaningful economic and workforce-development benefits within an economically distressed area of Houston, Texas. The business plan identifies ZIP Code 77020 as a highly distressed community with a Distressed Communities Index ("DCI") score of 96.0, reflecting substantial socioeconomic challenges, including elevated poverty rates, low educational attainment, declining employment trends, and significant underemployment **(Exhibit C.I. at 50)**. The record further indicates that approximately 34.6% of residents lack a high school diploma, while employment levels remain substantially below national benchmarks, demonstrating a strong need for workforce-development initiatives, job creation, and technical training opportunities within the region.

The company's proposed activities directly align with the identified needs of the region by creating specialized employment opportunities, implementing structured training initiatives, and supporting technical workforce development in a high-demand aviation sector. Through the progressive hiring of instructors, safety specialists, operational support personnel, training coordinators, and administrative staff, Vanguard Aviation Training is expected to contribute to local job creation while also fostering long-term professional development opportunities in specialized aviation services. Additionally, the company's focus on workforce training, operational readiness, and military-to-civilian transition initiatives may provide valuable pathways for skill development and economic mobility within the local community. Accordingly, Mr. Lotufo's proposed endeavor has the potential to contribute not only to aviation safety and operational advancement, but also to broader economic inclusion and workforce strengthening within an economically distressed area of the United States.

Hence, Mr. Lotufo's proposed endeavor possesses substantial national importance because its prospective impact clearly extends beyond the interests of any single employer, client, or private commercial entity. His proposed endeavor has substantial potential to generate broader economic and societal benefits through specialized workforce training, job creation, support for military-to-civilian workforce transition, strategic industry partnerships, tax-revenue generation, and operational support services in high-demand aviation sectors, including within an economically distressed area. Accordingly, the evidence demonstrates that the specific nature,

[8] The Economic Policy Institute ("EPI") indirect job creation model estimates the number of additional jobs expected to be generated throughout the broader economy as a result of a company's operational expenditures, payroll, supplier relationships, and related economic activity beyond the company's direct hires.

scope, and prospective impact of Mr. Lotufo's endeavor align closely with the national importance considerations articulated under *Matter of Dhanasar* and the USCIS Policy Manual.

The Proposed Endeavor impacts a matter that a Government Entity has described as having National Importance or is the subject of National Initiatives

The Federal Government has recognized aviation safety, emergency preparedness, workforce development, and operational resilience as matters of substantial national importance, particularly in sectors involving public safety, disaster response, transportation reliability, and mission-critical aviation operations. In fact, the aviation sector represents a critical component of the Nation's infrastructure and emergency-response framework, requiring continued investment in advanced training, operational standardization, and safety-focused aviation initiatives. Mr. Lotufo's proposed endeavor will be committed to improving aviation safety and operational performance in the United States. His endeavor aligns with current federal priorities emphasizing aviation safety enhancement, workforce preparedness, emergency-response readiness, and the strengthening of operational capabilities necessary to support public safety and national resilience throughout the United States.

First, regarding aviation safety and operational risk reduction**,** the FAA's 2025 U.S. National Aviation Safety Plan states that the United States uses the NASP to identify national aviation-safety priorities and direct government resources toward civil aviation safety management. This directly supports the argument that aviation safety and operational risk reduction are national priorities.

Additionally, focusing on aviation safety workforce and technical excellence, the FAA's 2025 Aviation Safety Workforce Plan focuses on mission-critical occupations directly affecting public safety, and the Department of Transportation (DOT) stated that the FAA plans to hire about 4,600 aviation safety inspectors and engineers through 2034. Mr. Lotufo's proposed endeavor directly supports these national aviation-safety objectives by contributing to specialized aviation training, operational standardization, NVG instruction, and workforce-development initiatives designed to strengthen operational readiness, pilot preparedness, and safety performance in complex rotary-wing aviation throughout the United States.

The petitioner's proposed endeavor also impacts matters in the United States' Presidential Actions, including *Immediate Assessment of Aviation Safety* (January 30, 2025) and *Keeping Americans Safe in Aviation* (January 21, 2025). These White House memoranda emphasize aviation safety, competence, qualification standards, and safety protocols as federal priorities. Thus, Mr. Lotufo's initiative to collaborate with advanced aviation training, operational standardization, and safety-focused solutions designed to strengthen emergency-response readiness, workforce preparedness, and operational reliability in mission-critical rotary-wing aviation impacts the matter that the federal government described as having national importance.

Moreover, Mr. Lotufo's proposed endeavor is aligned with federal initiatives such as the April 23, 2025, Executive Order *Preparing Americans for high-paying skilled trade jobs of the future* in such way that it targets workforce investments toward high-need occupations, upskilling,

alternative credentials, and employer-aligned skills. This supports Mr. Lotufo's company workforce-development and veteran-transition training theory.

Furthermore, the endeavor directly impacts Federal Agencies' initiatives such as the FEMA National Response Framework and Urban Search & Rescue ("SAR") demonstrating that emergency preparedness and SAR response capabilities remain ongoing federal priorities. Mr. Lotufo's proposed endeavor directly supports these objectives through mission-focused aviation instruction designed to strengthen emergency-response readiness and SAR operational effectiveness in the United States.

Finally, through programs like the Department of Transportations' 2025 Advanced Air Mobility National Strategy, advanced aviation operations, skilled workforce development, emergency-response aviation, and mission-critical mobility remain important national priorities in the United States.

Accordingly, Mr. Lotufo's proposed endeavor is closely aligned with current federal priorities involving aviation safety, emergency preparedness, workforce development, operational resilience, and mission-critical aviation readiness. Through Vanguard Aviation Training, he intends to apply decades of highly specialized military and civilian aviation expertise to strengthen advanced pilot training, NVG operations, operational standardization, and safety-focused aviation practices in sectors directly connected to public safety and emergency-response capabilities throughout the United States.

In addition, the supporting evidence included within this petition establishes that the proposed endeavor extends beyond the interests of a private commercial enterprise by contributing to workforce preparedness, aviation operational reliability, emergency-response readiness, tax revenue generation, strategic industry partnerships, and direct and indirect job creation, including within an economically distressed area of Houston, Texas. Therefore, the evidence supports that Mr. Lotufo's endeavor possesses substantial merit and national importance under the framework established in *Dhanasar* because it directly advances matters of recognized national concern involving public safety, aviation operational readiness, workforce strengthening, and the long-term resilience of mission-critical aviation infrastructure in the United States.

2.2. Second Prong – *The Person is Well-Positioned to Advance the Proposed Endeavor*

The foreign national must be well-positioned to advance the proposed endeavor. In order to determine whether the foreign national meets this requirement, USCIS will look at his or her education, skills, knowledge and record of success in related or similar efforts, a model or plan for future activities, progress toward achieving the endeavor, and the interest of potential customers, users, investors or other relevant entities or individuals.

In *Matter of Dhanasar*, the Administrative Appeals Office (AAO) stated that:

> We recognize that forecasting feasibility or future success may present challenges to petitioner and USCIS officers, and that many innovations and entrepreneurial endeavors may ultimately fail, in whole or in part, despite an intelligent plan and competent execution. We do not, therefore, require petitioners to demonstrate

> that their endeavors are more likely than not to ultimately succeed. But notwithstanding this inherent uncertainty, in order to merit a national interest waiver, **petitioners must establish, by a preponderance of the evidence, that they are well-positioned to advance the proposed endeavor**.

USCIS policy guidance explains that a petitioner should provide evidence demonstrating the beneficiary's prior accomplishments, the relationship between those accomplishments and the proposed endeavor, and objective support showing progress toward the endeavor's implementation. The guidance further explains that the relevant inquiry is whether the totality of the evidence establishes that the beneficiary is well-positioned to advance the proposed endeavor, even if ultimate success cannot be guaranteed at the time of filing, provided that the claims are supported by credible and substantiated evidence. See USCIS Policy Manual, Vol. 6, Pt. F, Ch. 5(A)(4).

Mr. Lotufo is well positioned to advance the proposed endeavor. He possesses over thirty years of progressive experience in military and civilian rotary-wing aviation as an Airline Transport Helicopter Pilot, Flight Instructor, and operational leader, with over 7,378 flight hours in complex and mission-critical environments, including offshore helicopter operations, tactical military aviation, NVG operations, external load missions, and advanced personnel insertion techniques, currently serving as Captain of the Sikorsky S-92 at Omni Táxi Aéreo. Beyond his professional skills, his educational qualifications include a Master's degree, several certifications, membership in distinguished associations in the field and professional recognitions.

Mr. Lotufo's academic background reflects a higher education and advanced military training directly related to aviation operations, leadership, and mission-critical operational management. In 1988, he earned a bachelor's degree in military sciences from the Military Academy of Agulhas Negras ("AMAN"), **one of Brazil's most prestigious military higher education institutions responsible for training commissioned officers of the Brazilian Army through rigorous academic, leadership, and operational instruction**. The program combines military sciences, operational strategy, leadership development, and technical training designed to prepare officers for complex military and aviation-related responsibilities.

Subsequently, in 1996, Mr. Lotufo obtained a master's degree in military operations from the Officers' Training School, an advanced military education institution focused on preparing senior military officers for high-level operational planning, command functions, strategic decision-making, and complex mission coordination. These academic credentials provided Mr. Lotufo with advanced technical, operational, and leadership foundations that directly support his expertise in rotary-wing aviation operations, aviation safety, pilot training, and mission-critical operational management.

His continued education includes several courses and certifications related to his proposed endeavor to the United States **(Exhibit C.II.)**, namely:

- **Military Parachutist Course** – Brazilian Army Parachutist Training Center (1989)[9]: Specialized military qualification focused on airborne operations, tactical parachute insertion techniques, and operational deployment procedures. The Brazilian Army Parachutist Training Center is a premier military institution responsible for training airborne and special operations personnel for high-risk tactical missions.
- **HUET – Helicopter Underwater Escape Training** – OPITO / Falck Safety Services[10]: Internationally recognized offshore aviation safety training focused on underwater escape procedures, emergency survival techniques, and evacuation protocols following helicopter water-impact scenarios. OPITO is a globally recognized organization establishing safety and training standards for offshore and high-risk industries.
- **Airplane Flight Instructor Course (INVA)** – São Paulo Aeroclub (1995)[11]: Professional aviation instructor certification focused on pilot instruction methodologies, flight training techniques, and aviation safety procedures. The São Paulo Aeroclub is one of Brazil's traditional civil aviation training institutions dedicated to pilot education and flight instruction.
- **EC225 Type Rating** – Airbus Helicopters / CAE Aberdeen (2014)[12]: Advanced aircraft-specific qualification authorizing operation of the Airbus EC225 helicopter in complex offshore and specialized operational environments. Airbus Helicopters is one of the world's leading helicopter manufacturers, while CAE is an internationally recognized aviation training provider.
- **Combat Pilot Course** – Army Aviation Training Center / CIAvEx (1997): Advanced military aviation training focused on tactical helicopter operations, mission planning, operational coordination, and combat flight procedures in complex operational environments. CIAvEx is the Brazilian Army Aviation Instruction Center responsible for advanced rotary-wing military aviation training.
- **Advanced Aviation Course** – Army Aviation Training Center / CIAvEx (2005)[13]: Advanced operational aviation program designed to prepare senior aviation officers for leadership, operational management, mission coordination, and complex aviation decision-making within military aviation operations.
- **UTEPAS – Underwater Aircraft Escape Training** – Brazilian Navy (2005)[14]: Specialized emergency-response and survival training focused on underwater aircraft evacuation and survival procedures in maritime operational environments. The Brazilian Navy is the country's principal military maritime authority responsible for naval and aviation operational preparedness.

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14 https://www.marinha.mil.br/en/node/169

- **UH-60 Black Hawk Qualification Course** – U.S. Army Aviation (1998)[15]: Specialized qualification program authorizing operation of the UH-60 Black Hawk helicopter, focused on tactical rotary-wing operations, mission execution, and operational safety. The U.S. Army Aviation program is internationally recognized for advanced military helicopter training and operational excellence.
- **Flight Instructor Course** – CIAvEx (1995)[16]: Military aviation instructor training program focused on pilot instruction, operational standardization, flight evaluation, and advanced aviation teaching methodologies within rotary-wing operations.
- **Night Vision Goggles (NVG) Flight Training** – CIAvEx (2007)[17]: Specialized operational training focused on low-visibility and nighttime helicopter operations using Night Vision Goggles ("NVG"), emphasizing aviation safety, mission readiness, and tactical operational performance.
- **S-70A Black Hawk Maintenance Pilot Training (MOMEP)** – Ecuador (1998): Specialized technical and operational training focused on maintenance oversight, operational safety, and performance management for S-70A Black Hawk helicopter systems.
- **S-70 Helicopter Maintenance Managers Course** – Sikorsky (2002)[18]: Advanced technical management course focused on operational maintenance oversight, aviation safety compliance, and maintenance coordination for Sikorsky S-70 helicopter operations. Sikorsky is a globally recognized aerospace manufacturer specializing in advanced rotary-wing aircraft.
- **Flight Safety Course** – DIPAA-DAC (1995)[19]: Aviation safety training program focused on accident prevention, operational risk mitigation, flight safety procedures, and aviation safety-management principles. DAC (Department of Civil Aviation) was Brazil's former civil aviation regulatory authority.
- **Operational Upgrade – EC225 Captain** (2016)[20]: Advanced command qualification authorizing operational command responsibilities as Captain of the Airbus EC225 helicopter in offshore and mission-critical aviation operations.

In sum, Mr. Lotufo's extensive academic background, combined with decades of specialized operational experience and numerous military, civilian, U.S., and international aviation certifications, strongly demonstrates that he is exceptionally well-positioned to advance his proposed endeavor under the standards established by USCIS and *Dhanasar*. His advanced training in military operations, aviation leadership, flight instruction, NVG operations, offshore aviation, tactical helicopter missions, and aviation safety management reflects a rare combination of technical expertise, operational knowledge, instructional capability, and leadership experience

[15] https://nationalguard.com/153d-uh-60-black-hawk-pilot
[16] https://www.eb.mil.br/web/noticias/w/exercito-forma-a-primeira-piloto-de-helicopteros-da-historia-da-instituicao
[17] https://www.defesaaereanaval.com.br/aviacao/ciavex-realiza-treinamento-de-pilotos-da-aviacao-policial-militar-em-voo-de-simulador-com-ovn
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[20] https://www.airbus.com/en/products-services/helicopters/hcare-services/training-flight-operations/simulator-training

directly related to the services Vanguard Aviation Training intends to provide in the United States. Collectively, these qualifications provide substantial and objective evidence that Mr. Lotufo possesses the specialized knowledge, professional preparation, and operational competence necessary to successfully implement and advance his proposed endeavor.

Petitioner's Skills, Experience, and Track of Record

Beyond Mr. Lotufo's academic qualifications and formal aviation training, his skills, experience and track record strongly corroborate that he is exceptionally well-positioned to advance his proposed endeavor in the United States. As will be further discussed below, the totality of Mr. Lotufo's professional accomplishments provides substantial evidence of the knowledge, experience, and operational capability necessary to successfully implement and advance his proposed endeavor.

Mr. Lotufo possesses more than three decades of progressively advanced experience in military and civilian rotary-wing aviation, combining operational leadership, advanced flight instruction, tactical aviation expertise, and mission-critical operational management. Throughout his career, he accumulated over 7,378 flight hours, including more than 2,808 hours as Pilot-in-Command and more than 1,336 instructional flight hours, demonstrating extensive operational exposure and significant instructional responsibility in highly specialized aviation environments. His flight experience includes operation of advanced aircraft such as the Sikorsky S-92, EC225, S-70A Black Hawk, AS350/AS550, and AS365 helicopters[21] in offshore operations, tactical military missions, search and rescue ("SAR") support, external cargo transport, and complex operational scenarios requiring advanced technical proficiency and operational discipline.

The Brazilian Federal Aviation Agency (ANAC) Licenses, Ratings, and Operational Authorizations

Mr. Lotufo holds multiple advanced aviation licenses, operational ratings, and specialized authorizations issued by ANAC, Brazil's federal civil aviation authority equivalent to the U.S. Federal Aviation Administration ("FAA") **(Exhibit C.II.)**. These credentials demonstrate his legal authorization to conduct advanced helicopter operations as well as extensive technical expertise, operational leadership, and qualification to perform highly specialized mission-critical aviation activities involving offshore operations, external-load transportation, hoisting missions, firefighting support, instrument flight operations, and complex rotary-wing operational environments. These credentials objectively corroborate his advanced professional standing within the aviation sector and directly support his proposed endeavor in the United States. Namely, these license are:

- **Airline Transport Pilot – Helicopter (PLAH / ATP-H Equivalent) -** Highest-level civilian helicopter pilot license issued by the Brazilian National Civil Aviation Agency ("ANAC"), equivalent to an FAA Airline Transport Pilot certificate for rotorcraft, authorizing advanced commercial and command-level helicopter operations.

[21] Sikorsky S-92 and Airbus EC225 are used in offshore and mission-critical transport operations, the S-70A Black Hawk is utilized in tactical military and emergency-response missions, and the AS350/AS550 and AS365 helicopters are commonly employed in search and rescue ("SAR"), public-safety, utility, and specialized aviation operations requiring advanced technical proficiency and operational reliability.

- **IFRH – Instrument Flight Rules Helicopter Rating** - Advanced operational qualification authorizing helicopter operations under instrument flight rules ("IFR"), including flights in adverse weather and reduced-visibility conditions using aircraft instruments rather than visual references.
- **SK92 Type Rating – Sikorsky S-92 Helicopter** - Specialized authorization to operate the Sikorsky S-92, a sophisticated heavy-lift twin-engine helicopter widely used in offshore transportation, search and rescue ("SAR"), and mission-critical aviation operations.
- **First-Class Aeronautical Medical Certificate -** Highest aviation medical certification category issued by ANAC, required for airline transport and commercial command helicopter operations.
- **ICAO English Proficiency – Level 4 -** International Civil Aviation Organization ("ICAO") operational English-language certification required for professional aviation communications and international aviation operations.
- **License Issued Based on Military Experience -** Official ANAC recognition converting Mr. Lotufo's Brazilian Army aviation experience into civilian aviation licensing qualifications, demonstrating that his military rotary-wing operational background satisfied civilian aviation competency standards.
- **ANAC Authorization for Helicopter External Load Operations -** Specialized operational authorization issued under Brazilian Civil Aviation Regulation RBAC 133 permitting advanced helicopter external-load operations, including cargo transport, hoisting, rappelling, and mission-critical operational activities.
- **Authorization for External Cargo Transportation (Short-Line and Long-Line Operations) -** Operational authorization permitting external-load helicopter missions involving suspended cargo transport using precision short-line and long-line systems in complex operational environments.
- **Authorization for Cargo/Personnel Hoisting Operations with Winch Systems -** Qualification authorizing specialized hoisting operations involving cargo and personnel movement through helicopter-mounted winch systems, commonly associated with offshore, rescue, and mission-critical aviation activities.
- **Authorization for Personnel Rappelling Operations -** Specialized operational authorization permitting helicopter-supported rappelling activities involving insertion or extraction of personnel in tactical or emergency-response environments.
- **Authorization for Firefighting Operations (Bambi Bucket Operations)** - Authorization permitting aerial firefighting missions using external water-delivery systems ("Bambi Bucket") during emergency-response and wildfire-suppression operations.

These licenses, operational ratings, and regulatory authorizations collectively demonstrate that Mr. Lotufo possesses advanced technical qualifications, extensive operational competence, and recognized expertise in highly specialized helicopter operations subject to strict regulatory oversight. Importantly, several of these authorizations involve mission-critical operational activities requiring elevated levels of precision, safety management, and operational judgment, including offshore transport, external-load missions, personnel extraction, firefighting support, and instrument flight operations.

Since 2017, Mr. Lotufo has served as **Captain of the Sikorsky S-92** at Omni Táxi Aéreo, one of the leading offshore aviation operators in Brazil. In this role, he performs offshore aviation operations involving heavy-lift helicopters, passenger transportation, and external cargo missions in remote and operationally demanding environments. His responsibilities require advanced operational judgment, strict compliance with aviation safety procedures, Crew Resource Management ("CRM"), and adherence to highly standardized operational protocols essential to offshore aviation safety and reliability. Prior to this role, Mr. Lotufo served as **First Officer of the EC225 helicopter** at BHS (Brazilian Helicopter Services), between 2014 and 2016, supporting offshore oil-platform operations and maritime aviation activities requiring specialized operational coordination and safety-focused flight procedures.

Moreover, between 1992 and 2013, he served as **Military Pilot and Flight Instructor** in multiple operational and instructional roles involving tactical helicopter operations, pilot instruction, advanced military aviation training, and operational management. During this period, he served as Senior Squadron Manager of the S-70A Black Hawk squadron in Manaus, Brazil, where he supervised operational activities and mission coordination involving one of the most sophisticated military rotary-wing aircraft platforms. He additionally led the implementation of NVG flight training programs within Army Aviation and later served as **Head of Employment and Flight Section** responsible for aviation training and specialization programs for Army Aviation pilots. These roles required advanced leadership, operational planning, instructional expertise, and direct responsibility for aviation readiness and mission preparedness in complex operational environments.

Mr. Lotufo's background also includes international operational experience through his participation in the MOMEP military observer mission in Ecuador and Peru between 1998 and 1999, where he served as **S-70A Black Hawk Pilot and Deputy Operations Officer**. This assignment involved multinational operational coordination, peacekeeping support, and complex mission execution in high-level military operational environments. Collectively, Mr. Lotufo's operational experience, technical expertise, instructional background, and leadership responsibilities demonstrate a rare and highly specialized professional profile directly aligned with the advanced aviation training, operational standardization, safety management, and workforce-development objectives of Vanguard Aviation Training.

Additionally, Mr. Lotufo's professional qualifications are evidenced by his participation as a Judge-Member of the Permanent Justice Council for the Army at the Audit of the 12th Military Judicial District in Manaus, Amazonas, Brazil, from January through March 2001 **(Exhibit C.II.).** This appointment demonstrates that he was entrusted by the Brazilian Federal Military Justice system with responsibilities involving the evaluation of military disciplinary and judicial matters, a role requiring high levels of professional judgment, leadership, integrity, operational experience, and institutional trust.

Track Record, Awards, and Honors

Mr. Lotufo has received numerous military honors, operational recognitions, and professional achievements awarded throughout his career in recognition of his leadership, operational excellence, aviation expertise, and long-term service **(Exhibit C.II.)**. Notably, he received the Military Medal with Silver Clasp in 2004 in recognition of more than 20 years of distinguished

military service in the Brazilian Army, a significant military decoration awarded to officers demonstrating sustained exemplary conduct, dedication, and professional merit throughout their military careers. He additionally received the Troop Corps Medal with Bronze Clasp for over 10 years of operational service and the Peacemaker Medal in recognition of distinguished service to the Brazilian Army, reflecting long-term operational contributions and leadership within military aviation environments.

His international operational recognition is particularly significant. In 1998, Mr. Lotufo received the Star of the Armed Forces of Ecuador ("Estrella de las Fuerzas Armadas del Ecuador"), a military-grade decoration awarded by the Armed Forces of Ecuador in recognition of his service and operational contributions during the MOMEP multinational peacekeeping mission. In 1999, he also received a Certificate of Achievement awarded by the United States Southern Command ("USSOUTHCOM") in connection with the Ecuador–Peru Military Observer Mission, recognizing his outstanding operational performance in a complex multinational military environment. During the same mission, he received the Distinguished Services ("Servicios Distinguidos") Diploma from MOMEP for distinguished aviation service and operational contributions as a helicopter pilot supporting peacekeeping operations. These recognitions demonstrate that Mr. Lotufo's expertise and operational performance were acknowledged not only nationally, but also within international and multinational military operational frameworks.

Furthermore, he was recognized with the Amazon Service Medal with Bronze Clasp, awarded for relevant operational service within military units operating in the Amazon region, one of the most operationally challenging aviation environments in South America due to remote terrain, climate conditions, and logistical complexity. Additionally, his participation as a competitor pilot in the Brazilian Aerobatic Championship between 1994 and 1995 also reflects advanced piloting proficiency, technical precision, and high-level operational capability beyond ordinary aviation practice.

Beyond his operational achievements, Mr. Lotufo has maintained long-standing engagement within the aviation community through professional memberships and continuing involvement in aviation-related organizations. He has been a member of the São Paulo Aeroclub for more than 30 years and currently holds membership in the Brazilian Helicopter Pilots Association ("ABRAPHE"), a professional organization dedicated to the advancement of helicopter aviation and aviation safety practices in Brazil. Collectively, Mr. Lotufo's distinguished operational history, international recognitions, military honors, instructional leadership, and advanced technical experience strongly corroborate his exceptional qualifications and demonstrate a sustained record of professional accomplishment directly related to his proposed endeavor in the United States.

Therefore, Mr. Lotufo's skills, operational experience, leadership roles, international training, military and civilian aviation background, and distinguished track record demonstrates that he is far more than a merely accomplished aviation professional. **The evidence reflects a highly specialized expert whose work has produced broad operational, instructional, and safety-related impact within the field of rotary-wing aviation through advanced pilot training, operational standardization, mission-readiness initiatives, and aviation safety leadership in complex and mission-critical environments. His sustained record of progressively advanced responsibilities, international recognitions, technical expertise, and**

operational accomplishments further establishes that he is exceptionally well-positioned to advance his proposed endeavor in the United States.

The Person's support (Financial and Otherwise) to drive the Proposed Endeavor Forward

Mr. Lotufo will make financial investments to, upon the approval of his visa, start implementing Vanguard Aviation Training in the United States. As of today, he has set apart a total of $30,000 (thirty thousand dollars) to cover startup expenses and provide the necessary operational assets for a market entry needed to launch a fully equipped enterprise in the United States **(Exhibit C.I. at 13)**.

According to the plan, the company's startup expenses are estimated at approximately $24,500 and include expenditures directly related to business formation and legal compliance, aviation-related insurance coverage, development of training materials and standardized operational procedures, acquisition of operational technology and business equipment, marketing and business-development initiatives, travel and partnership-development activities, and office and administrative infrastructure. These projected expenditures demonstrate that Mr. Lotufo has developed a concrete operational framework focused on establishing a sustainable aviation training and operational support company capable of delivering specialized services in the United States aviation sector.

In addition to the startup expenditures, the business plan projects approximately $5,500 in working capital reserves intended to support early-stage operational costs and service delivery during the company's initial growth phase, resulting in a total projected initial investment of approximately $30,000. These financial commitments provide objective evidence that Mr. Lotufo has taken meaningful and concrete steps toward implementing his proposed endeavor and possesses the financial planning, operational preparation, and organizational structure necessary to move the endeavor forward, corroborating that Mr. Lotufo is well-positioned to advance his proposed endeavor.

Moreover, Mr. Lotufo is supported by his peers and experts in the field who can confirm that he is well positioned to advance his proposed endeavor in the U.S. (Exhibit C.II.), including **Raul de Oliveira**, Brazilian Army veteran, who explained **how Mr. Lotufo's implementation of NVG operations established formal qualification standards and improved operational capabilities across Brazilian Army Aviation**: "The outcome of this work was the establishment of formal Night Vision Goggles (NVG) Piloting and Qualification Courses, which served as the definitive benchmark for nighttime mission standards within Brazilian Military Aviation... fundamentally enhanced the life safety of our aircrews, significantly reducing the risks inherent in low-visibility environments."

In addition, **Jose Braga de Avellar,** another Brazilian Army veteran, expressed in his supporting letter Mr. Lotufo's role in implementing NVG doctrine, creating qualification programs, and participating in flight-testing campaigns that certified helicopter adaptation for NVG operations: "He [Mr. Lotufo] was responsible for the technical planning and the creation of instructional materials, including the development of Qualification Internship Programs for both pilots and flight mechanics. Furthermore, Mr. Lotufo served as a pilot on the Flight Testing Campaign to certify the first Fennec helicopter adapted for NVG operations."

The Petitioner's work impacts is also endorsed by **Lourenco Ribeiro Pinho**, from the Department of Education and Research of the Brazilian Army, who wrote in his support letter that: "During his leadership of the Special Projects Section, Mr. Lotufo coordinated multiple large-scale initiatives simultaneously and oversaw multidisciplinary teams composed of senior professionals in aeronautical engineering, maintenance, logistics, and flight doctrine. He managed a team of 12 senior members on projects totaling about 1 billion reais.".

Letter from **Luiz Fernando Barganha,** the Brazilian Army, **directly connects Mr. Lotufo's work to measurable operational expansion and institutional readiness**: "The results of this project had a meaningful effect on the operational capability of Army Aviation. Establishing training stages for night vision piloting and night vision flight qualification enabled the consolidation of a consistent night flight doctrine across the force."

Finally, **Ricardo Nigri,** General Officer for the Brazilian Army, also discusses Mr. Lotufo's operational experience in the Amazon region and doctrinal implementation of NVG operations: "The project he led enabled the structuring of NVG Flight Training Programs and NVG Qualification Courses, representing important milestones in the modernization of Army Aviation.".

All in all, Mr. Lotufo possesses financial funds to start his project and support from his peers from specific broader impacts to his field, demonstrating he is well-positioned to drive his endeavor forward.

The Person's plans and progress to drive his endeavor forward - feasible plans for financial support

As previously mentioned, Mr. Lotufo has already set investments with personal funds in order to establish his company in the United States. He has also demonstrated enough financial assets to startup his business headquarters in the state of Texas **(Exhibit C.II.)**.

It is worth emphasizing that in *Dahnasar*, the petitioner should submit evidence to document the person's past achievements and corroborate projections related to the proposed endeavor to show that the person is well-positioned to advance the endeavor. **A person may be well-positioned to advance an endeavor even if the person cannot demonstrate that the proposed endeavor is more likely than not to ultimately succeed.** The project's financial feasibility and support from renowned professionals within the industry only reinforces the petitioner's commitment and pre-arrangements to drive his endeavor forward and contribute to the United States in aviation operation and safety.

Other evidence that the person is well-positioned to advance the proposed endeavor in the U.S. – a salary that demonstrates the high-level qualification

USCIS policy explains that, in determining whether a petitioner is well-positioned to advance a proposed endeavor under the second prong, officers may evaluate a broad range of evidence demonstrating the beneficiary's ability to successfully move the endeavor forward. USCIS specifically instructs that petitioners may submit evidence of past achievements, progress toward implementation of the endeavor, education, skills, certifications, record of success in related efforts, business plans, financial support, and other corroborating documentation demonstrating

the beneficiary's capacity to advance the proposed endeavor. The evidentiary categories relevant to this analysis are non-exhaustive, permitting officers to consider additional objective indicators of professional distinction and capability where appropriate.

Within this framework, evidence of high remuneration may also be considered as relevant corroborating evidence demonstrating that a beneficiary possesses specialized expertise, advanced qualifications, and professional value within the relevant field. Particularly in highly specialized technical professions, elevated compensation may objectively reflect that the beneficiary performs complex, high-responsibility duties requiring advanced operational knowledge, leadership capability, and substantial professional experience beyond that of ordinary practitioners in the field. Accordingly, compensation evidence may further support that a beneficiary is well-positioned to advance a proposed endeavor **where the remuneration reflects recognized expertise, operational responsibility, and sustained professional accomplishment.**

Here, the record demonstrates that Mr. Lotufo earned approximately **R$ 521,966.73** in gross taxable income during calendar year **2024 (tax year 2025)** alone, including approximately R$ 336,659.40 from the Brazilian Army and approximately R$ 185,307.33 from Omni Táxi Aéreo S.A., a leading offshore helicopter operator. The payroll records **(Exhibit C.II.)** further establish that his compensation included **specialized operational remuneration such as guaranteed flight-hour pay, hazard pay, international operational allowances, night-flight compensation, and additional aviation operational compensation associated with command-level helicopter operations in complex and mission-critical environments**. This evidence corroborates that Mr. Lotufo possesses highly specialized technical expertise, advanced operational qualifications, and a professional profile recognized and compensated at a level consistent with highly experienced aviation professionals entrusted with complex operational responsibilities.

In addition, the total gross taxable income reported in Mr. Lotufo's 2023 Brazilian Income Tax Return (calendar year 2023/tax year 2024) was approximately **R$ 414,834.61**, including R$ 331,849.98 from the Brazilian Army and approximately R$ 82,984.63 from Omni Táxi Aéreo S.A. In fact, Mr. Lotufo's remuneration followed a clear well documented upward progression from 2023 to 2024, thereby reflecting sustained professional advancement, increased operational value, and continued recognition of his specialized expertise and command-level responsibilities within the aviation sector.

Compensation within the Brazilian Army generally follows standardized governmental military pay structures based on rank, years of service, and official benefits, resulting in relatively fixed and regulated earnings that do not typically fluctuate based on market competition or private-sector demand[22]. By contrast, Mr. Lotufo's compensation through Omni Táxi Aéreo reflects multiple forms of specialized operational remuneration associated with highly qualified and experienced aviation professionals performing complex helicopter operations **(Exhibit**

[22] Federal Statute No. 6.880, December 9, 1980, Diário Oficial da União [D.O.U.] de 11.12.1980 (Braz.) (Establishing the Military Statute governing rights, duties, rank structure, and compensation framework for members of the Brazilian Armed Forces); Federal Statute No. 13.954, December 16, 2019, Diário Oficial da União [D.O.U.] de 17.12.2019 (Braz.) (restructuring the compensation and social protection system applicable to members of the Brazilian Armed Forces).

C.II.). His 2025 payroll statements demonstrate compensation beyond base salary, including guaranteed flight-hour pay, hazard pay, international operational allowance (Guyana Allowance), night-flight compensation, equipment allowance, ICAO allowance, and additional operational flight compensation. These forms of compensation objectively reflect the high level of technical expertise, command responsibility, operational risk exposure, and specialized qualifications required for senior helicopter captains engaged in offshore, international, and mission-critical aviation operations.

A geographic salary survey from a highly reliable source **(Exhibit C.II.)** shows that Mr. Lotufo's compensation, considering solely his civil role remuneration, is consistent with highly qualified and experienced helicopter aviation professionals. According to Glassdoor salary data for "Helicopter Pilot" positions in Brazil for professionals with more than 15 years of experience, the "most likely range" for monthly base salary falls between approximately R$15,000 and R$20,000 per month, corresponding to the 25th through 75th percentiles of reported compensation data.

By comparison, Mr. Lotufo's payroll statements for June, July, and August 2025 reflect gross monthly earnings ranging from approximately **R$29,768.28 to R$34,330.24 per month**, **substantially exceeding the upper range identified in the Glassdoor market survey**. Annualized, this compensation corresponds to an approximate yearly earning range between **R$357,000 and R$411,000 solely from his private-sector aviation employment**, significantly above many of the comparable annual salary ranges identified for helicopter pilots with over 15 years of experience in Brazil. The Glassdoor data additionally reflects that the R$15,000 to R$20,000 monthly range represents the "most likely range" between the 25th and 75th percentiles, indicating that Mr. Lotufo's compensation falls well above the upper percentile range for many comparable helicopter pilot positions in the relevant geographic market.

All things considered, Mr. Lotufo clearly meets the second prong for the NIW classification, since he is well-positioned in his field of endeavor demonstrated through his vast experience and exceptional skills, track of record, awards, high remuneration, financial and peer support, as well as commitment to move his endeavor forward.

2.3. Third prong - ***Whether, on balance, it would be beneficial to the United States to waive the requirements of a job Offer, and thus a labor certification***

Lastly, in the analyses of considering if the job offer and labor certification requirements should be waived, USCIS considers whether the U.S. would benefit from the foreign national contributions. By creating the National Interest Waiver, U.S. Congress recognized that in certain cases the benefits inherent in the labor certification process can be outweighed by other factors that are also deemed to be in the national interest. This is also called "the balance test".

USCIS evaluates whether, on balance, waiving the labor certification requirement would benefit the United States sufficiently to outweigh the protections ordinarily afforded through the labor certification process. USCIS policy guidance explains that this analysis considers the proposed endeavor together with the beneficiary's demonstrated ability to advance that endeavor and assesses whether the national benefits of the beneficiary's contributions justify forgoing the labor certification process. Relevant considerations may include whether it would be impractical for

the beneficiary to obtain a labor certification in light of the nature of the endeavor, whether the United States would benefit from the beneficiary's contributions even if other workers were theoretically available, whether the endeavor addresses urgent national interests such as public safety or workforce readiness, whether the labor certification process may impede the implementation of endeavors requiring highly specialized expertise beyond minimum occupational requirements, and whether the endeavor has the potential to generate economic impact, workforce development, or job creation. See USCIS Policy Manual, Vol. 6, Pt. F, Ch. 5(D).

In Mr. Lotufo's case, the proposed endeavor is to improve aviation safety and operational performance in the United States through advanced pilot training programs, standardized operational frameworks, and structured safety solutions focused on emergency response, specialized aviation operations, and complex flight environments, bringing significant impacts to the sector, public safety, and the broader economy, promoting new employment opportunities, which will, in turn, strengthen the local labor force and stimulate economic development. His proposed endeavor is entrepreneurial in nature and will be advanced through Vanguard Aviation Training, a specialized aviation training and operational support company that Mr. Lotufo intends to establish and manage in the United States.

As recognized by USCIS, **the labor certification process often provides limited practical benefit in cases involving entrepreneurs and self-employed professionals who are creating business operations, expanding specialized services, and generating employment opportunities rather than competing directly for a preexisting position in the labor market**. The evidence here demonstrates that Mr. Lotufo's company is projected to create direct employment opportunities for U.S. workers through positions including flight instructors, NVG training specialists, aviation safety specialists, operational support personnel, instructional design specialists, administrative staff, and business-development professionals. The business plan further projects substantial tax contributions, workforce expansion, and economic activity associated with the company's operations in the United States.

Moreover, Mr. Lotufo possesses highly specialized operational expertise and leadership experience that would not be adequately captured through the ordinary labor certification process. His background includes more than 30 years of advanced military and civilian rotary-wing aviation experience, implementation of NVG training programs, operational leadership involving S-70A Black Hawk operations, offshore helicopter command responsibilities, advanced flight instruction, and multinational mission experience in complex and mission-critical environments. His proposed endeavor directly aligns with nationally important interests involving aviation safety, emergency preparedness, workforce readiness, operational standardization, and mission-critical aviation operations.

Additionally, the endeavor addresses areas closely connected to public safety and emergency-response capabilities, including specialized aviation training for operators involved in SAR emergency-response missions, and high-risk operational environments. Accordingly, the evidence demonstrates that the national benefits associated with Mr. Lotufo's proposed endeavor, including workforce strengthening, public-safety enhancement, operational readiness, economic

contributions, and specialized aviation training, are sufficiently substantial to warrant a waiver of the labor certification requirement under the framework established in *Dhanasar*.

The petitioner's contributions are sufficiently urgent

Mr. Lotufo's proposed endeavor directly addresses nationally significant concerns involving aviation safety, mission-critical operational readiness, emergency-response capability, and specialized workforce development within sectors that require highly trained aviation personnel and advanced operational standards. It also aligns closely with current federal initiatives and national priorities related to aviation safety modernization and operational resilience. The Federal Aviation Administration's ("FAA") National Aviation Safety Plan emphasizes the importance of reducing operational risks, strengthening safety-management practices, improving pilot training, and enhancing operational standardization throughout the aviation sector. Similarly, federal workforce-development initiatives recognize the need to strengthen training pathways and specialized technical readiness within transportation and aviation-related occupations. Mr. Lotufo's proposed endeavor directly supports these objectives through advanced helicopter pilot training, NVG instruction, operational standardization programs, and workforce-development initiatives designed to improve safety and mission readiness in complex aviation environments.

The urgency of Mr. Lotufo's contributions is further supported by the growing national importance of emergency-response aviation operations, including search and rescue disaster-response support, emergency medical transportation, and public-safety aviation missions. Federal emergency-preparedness frameworks, including initiatives advanced by the Department of Homeland Security ("DHS") and the Federal Emergency Management Agency ("FEMA"), continue to emphasize the importance of operational readiness, emergency-response coordination, and specialized response capabilities in mission-critical environments **(Exhibit C.I.)**. Mr. Lotufo's background in military aviation operations, offshore helicopter command, tactical helicopter missions, and NVG operational training directly aligns with these national operational priorities.

Additionally, the labor certification process would provide limited practical benefit in the context of Mr. Lotufo's proposed endeavor because the endeavor is entrepreneurial and highly specialized in nature. **Rather than seeking placement into a conventional preexisting employment position, Mr. Lotufo intends to establish and lead Vanguard Aviation Training as a specialized aviation training and operational-support company focused on advanced operational readiness, workforce development, and aviation safety enhancement**. His unique combination of military operational leadership, multinational aviation experience, advanced flight instruction, offshore helicopter command, and implementation of NVG operational doctrine reflects specialized expertise that exceeds the ordinary minimum qualifications typically captured through the labor certification framework.

Finally, the national interest in Mr. Lotufo's contributions is heightened by the time-sensitive nature of workforce preparedness and operational readiness within mission-critical aviation sectors. Specialized helicopter operations supporting emergency response, transportation reliability, offshore operations, and public safety depend heavily on advanced pilot proficiency, operational standardization, and safety-focused training capable of reducing operational risks and

improving mission effectiveness. Through his company, Mr. Lotufo seeks to apply more than 30 years of highly specialized military and civilian rotary-wing aviation experience to strengthen these operational capabilities within the United States, therefore the prospective benefits associated with Mr. Lotufo's proposed endeavor are sufficiently urgent, nationally relevant, and operationally significant to warrant waiving the labor certification requirement.

On balance, it would be beneficial to the U.S. to waive the requirements of a job offer and, thus, also of labor certification.

The U.S. economy and public-safety infrastructure will benefit from Mr. Lotufo's experience gained throughout his extensive military and civilian aviation career and advanced operational background as a highly specialized rotary-wing aviation professional. Mr. Lotufo is well positioned to advance his proposed endeavor and, upon approval, will continue providing specialized aviation training, operational-support services, and workforce-development initiatives that will be significant to the aviation safety and mission-critical operations sectors, broadly enhancing public safety, workforce readiness, operational reliability, and U.S. economic competitiveness; thus, on balance, it would be beneficial to the U.S. to waive the requirements of a job offer and, thus, also of labor certification.

His contributions are particularly significant in the aviation and emergency-response sectors, fields that sit at the intersection of several nationally important operational priorities, including aviation safety, emergency preparedness, search and rescue, operational standardization, and advanced pilot training. These efforts directly support U.S. national priorities related to aviation safety modernization, workforce strengthening, and operational resilience in mission-critical aviation operations.

Furthermore, Mr. Lotufo's endeavor will continue generating value across the broader aviation and transportation sectors, enhancing operational performance, workforce preparedness, and safety-focused aviation practices throughout the industry. His work directly contributes to societal welfare by improving the reliability, readiness, and safety of aviation operations relied upon by emergency-response organizations, specialized operators, and mission-critical aviation services. Given his proven track record, highly specialized expertise, and the strategic national relevance of his proposed endeavor, requiring a job offer or labor certification would not only delay but also potentially hinder the realization of benefits that are clearly aligned with the public interest. Therefore, a waiver of these requirements serves both the immediate and long-term interests of the United States, ensuring that Mr. Lotufo can fully dedicate his expertise to advancing aviation safety, workforce readiness, emergency-response preparedness, and national operational resilience.

3. Conclusion

In order to qualify for the EB-2 Visa and the NIW classification, a petitioner must establish that the beneficiary is eligible to the second preference and meets all the prongs under *Matter of Dhanasar*; The burden of proof rests with the Petitioner to establish that waiving the requirements of a job offer and labor certification would be in the national interest of the United States.

Mr. Lotufo qualifies for the EB-2 Visa classification as a professional holding an advanced degree. He holds the equivalent of a bachelor's degree in military sciences from an accredited institution of higher education in the United States, in addition to more than 30 years of progressively post baccalaureate professional experience in aviation operations, flight instruction, operational leadership, and mission-critical helicopter activities.

Mr. Lotufo's unique operational knowledge and extensive aviation experience, combined with his leadership and instructional background, will provide meaningful benefits to the United States by contributing to aviation safety, emergency-response readiness, workforce development, and mission-critical operational reliability. Through his proposed endeavor, he seeks to strengthen specialized helicopter training, operational standardization, and advanced pilot preparedness in sectors directly connected to public safety, emergency preparedness, search and rescue ("SAR"), and specialized aviation operations. His endeavor will additionally contribute to economic activity, workforce strengthening, and tax generation through the development and expansion of Vanguard Aviation Training in the United States.

Moreover, Mr. Lotufo has established by the preponderance of the evidence that he merits a national interest waiver as a matter of discretion under *Matter of Dhanasar* since: (1) his proposed endeavor involving advanced aviation training, operational-support services, aviation safety enhancement, and workforce-development initiatives **has both substantial merit and national importance**; (2) Mr. Lotufo is **well positioned to advance his proposed endeavor** based on his more than 30 years of specialized military and civilian aviation experience, advanced operational leadership roles, extensive instructional background, internationally recognized certifications, and distinguished track record in complex rotary-wing operations; and (3) **on balance, it is beneficial to the United States to waive the requirements of a job offer** and, thus, labor certification because Mr. Lotufo will advance an entrepreneurial endeavor expected to strengthen aviation safety, workforce readiness, emergency-response preparedness, and operational resilience while generating employment opportunities, economic activity, and substantial tax contributions in the United States.

If Mr. Lotufo is not granted this immigration benefit, the U.S. nation will be denied access to a skilled worker with exceptional knowledge and experience in his field of endeavor. Thus, for all the reasons set forth in this letter we respectfully request that the USCIS grants Mr. Lotufo a National Interest Waiver so that he may serve the national interest through his exceptional work.

We respectfully request that you consider this petition and the evidence submitted herewith. Your attention to this case will be deeply appreciated. Thank you for your time and consideration of the request on behalf of Mr. Luiz Henrique Garcez Lotufo.

Sincerely,

Otavio Haverroth Silva
California Bar # 343486

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Exhibit A

Luiz Henrique Garcez Lotufo

Taubaté – SP, Brazil | (12) 99682-6912 | luizhglotufo@gmail.com

Airline Transport Helicopter Pilot | ANAC Code: 705632 | ICAO English Level 4 (valid through September 2026)

Profile

Airline Transport Helicopter Pilot with 7,378.97 total flight hours, including 2,808.23 hours as Pilot-in-Command and 1,336.4 hours as Flight Instructor. Extensive experience in offshore operations (EC 225 and SK-92), external load operations, and flight in complex operational environments. Proven leadership and instructional background within the Brazilian Army Aviation. Currently serving as Captain on the Sikorsky S-92 at Omni Táxi Aéreo.

My professional purpose is to contribute to the technical and operational development of pilots, combining solid experience in basic pilot training—particularly helicopter training—with extensive expertise in specialized military helicopter operations. This experience includes tactical flight operations, personnel insertion via hoist, rappelling, McGuire Rig, and Fast rope; external load operations using cargo hook and hoist systems; and operations using Night Vision Goggles (NVG).

Professional Experience

- Captain (SK-92)

Omni Táxi Aéreo | Brazil & Guyana | 2017 – Present

- Offshore operations with heavy lift helicopters (EC 225 and SK-92).
- Passenger and external cargo transport missions in remote areas.
- Strong focus on operational safety, Crew Resource Management (CRM), and procedural standardization.

- First Officer (EC225)

BHS – Brazilian Helicopter Services | Brazil | 2014 – 2016

- Offshore operations on oil platforms using EC 225 aircraft.
- Passenger transport and operational support in maritime environments.

- Military Pilot and Flight Instructor

Brazilian Army – Army Aviation | Various locations | 1992 – 2013

- Flight Instructor (1,336.4 instruction hours).
- Senior Squadron Manager S-70A Black Hawk - Manaus (2001–2002).
- Project Manager of Implementation of NVG Flight Training in Army Aviation (2003–2005).
- Head of the Employment and Flight Section – Training and specialization courses for Army Aviation pilots (2005–2006).

- Military Observer (MOMEP) Mission – Ecuador/Peru (1998–1999): S-70A Black Hawk Pilot and Deputy Operations Officer

Flight Experience

- Total: 7,378.97 hours (5,442.49 multi-engine | 2,808.23 as Pilot-in-Command)
- S-70A (Black Hawk): 895.5 hours (803.5 as Pilot-in-Command)
- EC 225: 2,709.45 hours (899.13 as Dual/Second-in-Command)
- AS 365K (Dauphin): 135.8 hours (15.6 as Pilot-in-Command)
- Sikorsky S-92: 1,702.26 hours (209.09 as Pilot-in-Command)
- AS 350 / AS 550 (Esquilo/Fennec): 1,936.8 hours (1,780.8 as Pilot-in-Command)
- Flight Instructor: 1,336.4 hours (Brazilian Army Aviation)

Education

Master's Degree in Military Operations – Officers' Training School (1996)

Bachelor's Degree in Military Sciences – Military Academy of Agulhas Negras (1988)

Courses and Certifications

- Military Parachutist Course – Brazilian Army Parachutist Training Center (1989)
- HUET (Helicopter Underwater Escape Training) – OPITO (Falck Safety Services)
- Airplane Flight Instructor Course (INVA) – São Paulo Aeroclub (1995)
- EC225 Type Rating – Airbus Helicopters (CAE/Aberdeen, 2014)
- Combat Pilot Course – Army Aviation Training Center (1997)
- Advanced Aviation Course – Army Aviation Training Center (2005)
- UTEPAS – Underwater Aircraft Escape Training (Brazilian Navy, 2005)
- UH-60 Black Hawk Qualification Course – U.S. Army Aviation (1998)
- Flight Instructor Course – CIAvEx (1995)
- Combat Pilot Course – CIAvEx (1997)
- Night Vision Goggles (NVG) Flight Training – CIAvEx (2007)
- Advanced Aviation Course – CIAvEx (2005)
- S-70A Black Hawk Maintenance Pilot Training (MOMEP – Ecuador, 1998)
- S-70 Helicopter Maintenance Managers Course – Sikorsky (2002)
- Flight Safety Course – DIPAA-DAC (1995)
- Operational Upgrade – EC225 Captain (2016)
- Participation in the Flight Safety Seminar for Executive Aviation – DAC (1994)
- Participation in the XII Flight Safety Symposium – CAE (2009)
- Participation in the First Symposium on Command and Control in the Resistance Strategy – CavEx (2004)

Languages

English – Advanced (ICAO Level 4, valid through September 2026)

Awards and Honors

- Military Medal with Silver Clasp, as recognition for over 20 years of distinguished military service (2004)
- Amazon Service Medal with Bronze Clasp, for relevant service in Amazon military units (2002)
- Star of the Armed Forces of Ecuador ("Estrella de las Fuerzas Armadas del Ecuador") – Military Grade Decoration, Armed Forces of Ecuador (1998)
- Certificate of Achievement – MOMEP – Awarded by the United States Southern Command for outstanding performance in the Ecuador–Peru Military Observer Mission (1999)
- Distinguished Services ("Servicios Distinguidos") Diploma – MOMEP – For distinguished service as a helicopter pilot in peacekeeping operations (1999)
- The Expeditionary – Awarded by the Brazilian Veterans Association (1990)
- Troop Corps Medal with Bronze Clasp, for over 10 years of service in operational Army units (2005)
- Peacemaker Medal, for distinguished service to the Brazilian Army (2000)
- Competitor Pilot in the Brazilian Aerobatic Championship (1994–1995)

Additional Skills

Member of the São Paulo Aeroclub for over 30 years

Member of the Brazilian Helicopter Pilots Association (ABRAPHE) – since 2025

I, Marina Viana Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that I have performed the professional translation of this document from Portuguese to English, as a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Marina Viana **Date: April, 24 2026**

Luiz Henrique Garcez Lotufo

Taubaté – SP | (12) 99682-6912 | luizhglotufo@gmail.com

Piloto de Linha Aérea de Helicóptero | Cód. ANAC: 705632 | ICAO Inglês Nível 4 (validade: set/2026)

Apresentação

Piloto de Linha Aérea de Helicópteros com 7.378,97 horas de voo acumuladas, sendo 2.808,23 horas em comando e 1.336,4 horas como instrutor. Experiência robusta em operações offshore (EC 225 e SK 92), transporte de cargas externas e voo em ambientes complexos. Histórico de liderança e instrução na Aviação do Exército Brasileiro. Atualmente, Comandante de helicóptero SK 92, na Omni Táxi Aéreo.
Tenho como propósito profissional contribuir para o desenvolvimento técnico e operacional de pilotos, unindo sólida experiência na formação básica de pilotos de avião e, principalmente, de helicóptero, com ampla atuação na instrução de técnicas especiais de pilotagem militar de helicóptero. Essa atuação inclui pilotagem tática, infiltração de pessoal por guincho, rappel, McGuire e Fast Rope, transporte de cargas externas com gancho e guincho de aeronave, além de pilotagem com óculos de visão noturna (NVG).

Experiência Profissional

- Piloto Comandante (SK 92)

Omni Táxi Aéreo | Brasil e Guiana | 2017 – Atual

  - Operações offshore com aeronaves de grande porte (EC 225 e SK 92).
  - Missões de transporte de passageiros e cargas externas em áreas remotas.
  - Foco em segurança operacional, CRM e padronização de procedimentos.

- 1º Oficial (EC225)

BHS – Brazilian Helicopter Services | Brasil | 2014 – 2016

  - Operações offshore em plataformas de petróleo com aeronaves EC 225.
  - Transporte de passageiros e apoio a operações em ambiente marítimo.

- Piloto Militar e Instrutor de Voo

Exército Brasileiro – Aviação do Exército | Diversas localidades | 1992 – 2013

  - Instrutor de Voo (1.336,4 horas de instrução).
  - Gerente Sênior de Esquadrilha S70A Black Hawk – Manaus (2001–2002).
  - Gerente do Projeto de Implantação do Estágio de voo com NVG na Aviação do Exército (2003–2005).

- Chefe da Seção de Emprego e Pilotagem – cursos de formação e especialização de pilotos da Aviação do Exército (2005–2006).
- Missão MOMEP – Equador/Peru (1998–1999): Piloto de S70A Black Hawk e Adjunto de Operações.

Experiência de Voo

• Total: 7.378,97 h (5.442,49 h multimotor | 2.808,23 h em comando)
• S70A (Black Hawk): 895,5 h (803,5 h em comando)
• EC 225: 2.709,45 h (899,13 h em duplo comando)
• AS 365K (Dauphin): 135,8 h (15,6 h em comando)
• SK 92: 1.702,26 h (209,09 h em comando)
• AS 350/AS 550 (Esquilo/Fennec): 1.936,8 h (1.780,8 h em comando)
• Instrutor de Voo: 1.336,4 h (Aviação do Exército)

Educação

Mestrado em Operações Militares – Escola de Aperfeiçoamento de Oficiais (1996)

Bacharel em Ciências Militares – Academia Militar das Agulhas Negras (1988)

Cursos e Certificações

- Curso de Paraquedista Militar – Centro de Instrução Paraquedista do Exército Brasileiro (1989)
- HUET (Helicopter Underwater Escape Training) – OPITO (Falck Safety Services)
- INVA – Curso de Instrutor de Vôo de Avião – Aeroclube de São Paulo (1995)
- Curso de Qualificação EC225 – Airbus Helicopters (CAE/Aberdeen, 2014)
- Curso de Piloto de Combate – Centro de Instrução de Aviação do Exército (1997)
- Curso Avançado de Aviação – Centro de Instrução de Aviação do Exército (2005)
- UTEPAS – Treinamento de Escape de Aeronave Submersa (BAENSPA/MB, 2005)
- Curso de Qualificação UH-60 Black Hawk – U.S. Army Aviation (1998)
- Instrutor de Voo – CIAvEx (1995)
- Curso de Piloto de Combate – CIAvEx (1997)
- Estágio de Pilotagem com Óculos de Visão Noturna (NVG) – CIAvEx (2007)
- Curso Avançado de Aviação – CIAvEx (2005)
- Estágio de Piloto de Manutenção S70A Black Hawk (MOMEP – Equador, 1998)
- Curso de Gerentes de Manutenção HE S-70 - Sikorsky (2002)
- Estágio de Segurança de Voo – DIPAA-DAC (1995)
- Elevação Operacional – Comandante EC225 (2016)
- Participação no Seminário de Segurança de Vôo para Aviação Executiva – DAC (1994)
- Participação no XII Simpósio de Segurança de Vôo – CAE (2009)
- Participação no Primeiro Simpósio de Comando e Controle na Estratégia da Resistência – CavEx (2004)

Idiomas

Inglês – Avançado (ICAO 4, válido até set/2026)

Prêmios e Honrarias

- Medalha Militar com Passador de Prata, como reconhecimento aos bons serviços militares prestados durante mais de vinte anos (2004)
- Medalha de Serviço Amazônico com Passador de Bronze, pelos relevantes serviços prestados em Organizações Militares da Amazônia (2002)
- Condecoração "Estrella de las FF. AA. del Ecuador" – Grau "Estrella Militar", Forças Armadas do Equador (1998)
- Certificate of Achievement – MOMEP – Concedido pelo United States Southern Command por desempenho excepcional na Missão de Observadores Militares Equador-Peru, Patuca, Equador (1999)
- Diploma de "Servicios Distinguidos" na MOMEP – Concedido pela Coordenação Geral da Missão por atuação como Piloto de Helicóptero em operações de manutenção da paz, Patuca, Equador (1999)
- "O Expedicionário" – Concedido pela Associação dos Ex-Combatentes do Brasil por relevantes serviços prestados à instituição, São Paulo (1990)
- Medalha Corpo de Tropa com Passador de Bronze, pelos bons serviços prestados em Organizações Militares de Corpo de Tropa do Exército Brasileiro, por mais de 10 anos (2005)
- Medalha do Pacificador, pelos assinalados serviços prestados ao Exército Brasileiro (2000)
- Participação como piloto competidor no Campeonato Brasileiro de Acrobacia Aérea (1994–1995)

Outras Habilidades

Membro associado do Aeroclube de São Paulo há mais de 30 anos.

Sócio da Associação Brasileira de Pilotos de Helicóptero (ABRAPHE) – desde 2025.

Exhibit B - Eligibility Criteria

MASTER'S DEGREE
(STRICTO SENSU GRADUATE PROGRAM)

THE HEAD OF THE BRAZILIAN ARMY'S DEPARTMENT OF EDUCATION AND RESEARCH, by virtue of the administrative authority granted under Article 19 and its Sole Paragraph of Law No. 9,786, of February 8, 1999 (Army Education Law), in view of the delegation conferred by Ordinance No. 138 – Army General Staff, of December 24, 1999, and the reference made by Ordinance No. 003 – EME, of January 3, 2000, to Law No. 6,265, of November 19, 1975, and considering that:

1. Article 83 of Law No. 9,394, of December 20, 1996, recognizes that "military education is regulated by a specific law, with equivalence of studies being admitted in accordance with the rules established by the education systems";

2. Opinion No. 75/83, of March 8, 1983, issued by the former Federal Education Council, recognizes the authority of Military Education to grant degrees and diplomas corresponding to the courses offered in its educational institutions;

3. The Officers Improvement Course (CAO), established under Article 10, Article 14, item II, and Article 16, items I (d) and II (b), all of Law No. 6,265, of November 19, 1975, in force at the time it was conducted, with a duration of one academic year in residence and a total workload of 1,600 hours;

a. has held the title of Improvement Course since its creation in 1920 by the French Military Mission;

b. is intended for the development of research, the expansion of knowledge, and the doctrinal enhancement of the employment and application of military units;

c. prepares Senior Officers to serve in the positions of Commander, Director, Chief, and Staff Officer of a Unit;

d. is attended exclusively by Officers with a university education;

e. requires prior approval in a preparatory course, which includes foreign language training;

4. The combination of the improvement course (in-person phase) with the corresponding preparatory course (distance learning phase), totaling 2 (two) academic years and an average workload of 1,836 hours of student activities, complies with the provisions of Opinions No. 977/65, of December 3, 1965, and No. 600/82, of November 30, 1982, as well as Resolution No. 05/83, of March 10, 1983, all issued by the aforementioned Federal Education Council, these provisions being relevant to the duration, evaluation, and objectives of a master's degree, stricto sensu graduate program;

CERTIFIES

that **Cavalry Captain LUIZ HENRIQUE GARCEZ LOTUFO** (ID 023260093-2 Ministry of Defense/ Army), having completed with satisfactory performance in 1996, the Officers Improvement Course conducted at the Officers Improvement School, acquired skills and qualifications equivalent to a stricto sensu graduate program, conferring the **MASTER'S DEGREE IN MILITARY OPERATIONS**, corresponding to his Bachelor's degree in Military Sciences obtained at the Agulhas Negras Military Academy, in accordance with Article 13 of Law No. 9,786/99.

Rio de Janeiro, RJ, January 10, 2003



GILBERTO BARBOSA DE FIGUEIREDO
Head of the *Department of Education and Research*

SIGNATURE VERIFICATION

I hereby certify as true and handwritten the signature of **General of the Army GILBERTO BARBOSA DE FIGUEIREDO**, Head of the Department of Education and Research.

Rio de Janeiro-RJ, January 10, 2003



ANTONIO CARLOS GUELFI – Colonel Artillery QEMA
Chief of Staff - DEP
**QEMA: Artillery Engineering and Materials Qualification*
DEP: Department of Education and Research

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.


_____ Date: December 03, 2025.

GRAU DE MESTRE
(PÓS-GRADUAÇÃO STRICTO SENSU)

O CHEFE DO DEPARTAMENTO DE ENSINO E PESQUISA DO EXÉRCITO BRASILEIRO, em face de sua competência administrativa definida no Art 19 e seu Parágrafo Único da Lei nº 9.786, de 08 Fev 99 (Lei do Ensino do Exército), observada a delegação conferida pela Portaria nº 138 – Estado Maior do Exército, de 24 Dez 99, e a remissão da Portaria nº 003 – EME, de 03 Jan 00, à Lei nº 6265, de 19 Nov 75, e considerando que:

1. o Art 83 da Lei nº 9.394, de 20 Dez 96, reconhece que o "ensino militar é regulado por lei específica, admitida a equivalência de estudos, de acordo com as normas fixadas pelos sistemas de ensino";

2. o Parecer nº 75/83, de 08 Mar 83, do então Conselho Federal de Educação, reconhece ao Ensino Militar competência para emitir títulos e diplomas relativos aos cursos realizados em seus estabelecimentos de ensino;

3. o Curso de Aperfeiçoamento de Oficiais (CAO), disposto a partir do Art 10, Art 14 II e Art 16 I d) e II b), tudo da Lei nº 6265, de 19 Nov 75, vigente à época da sua realização, com a duração presencial de 01 (um) ano letivo e a intensidade de 1600 horas;

a. tem título de Aperfeiçoamento desde a sua criação, em 1920, pela Missão Militar Francesa;

b. destina-se ao desenvolvimento de pesquisas, ampliação de conhecimentos e aperfeiçoamento doutrinário do emprego e aplicação das unidades militares;

c. prepara Oficiais Superiores para o exercício dos cargos de Comandante, Diretor, Chefe e Membro de Estado-Maior de Unidade;

d. é realizado apenas pelos Oficiais com formação universitária;

e. exige a aprovação prévia em curso preparatório, onde está incluída a capacitação em língua estrangeira;

4. a junção do aperfeiçoamento propriamente dita (fase presencial) com o respectivo preparatório (fase de telensino), totalizando 2 (dois) anos letivos e a intensidade média de 1836 horas de atividades discentes, atende ao prescrito nos pareceres nº 977/65, de 03 Dez 65 e nº 600/82, de 30 Nov 82, bem como na Resolução nº 05/83, de 10 Mar 83, tudo do referido Conselho Federal de Educação, dispositivos estes pertinentes à duração, avaliação e objetivos do mestrado, pós-graduação stricto-sensu;

C E R T I F I C A

que o **Capitão de Cavalaria LUIZ HENRIQUE GARCEZ LOTUFO** (Idt 023260093-2 Min Def/Ex), por haver concluído, com aproveitamento, em 1996, o Curso de Aperfeiçoamento de Oficiais, realizado na Escola de Aperfeiçoamento de Oficiais, obteve habilitações e capacitações que suprem a pós-graduação stricto-sensu com o **GRAU DE MESTRE EM OPERAÇÕES MILITARES**, em relação ao seu grau de Bacharel em Ciências Militares, obtido na Academia Militar das Agulhas Negras, na forma do Art 13 da Lei nº 9786/99.

Rio de Janeiro, RJ, 10 de janeiro de 2003

Gen Ex GILBERTO BARBOSA DE FIGUEIREDO
Chefe do DEP

RECONHECIMENTO DE ASSINATURA

Reconheço como verdadeira e de próprio punho a assinatura do **Gen Ex GILBERTO BARBOSA DE FIGUEIREDO,** Chefe do Departamento de Ensino e Pesquisa.

Rio de Janeiro-RJ, 10 de janeiro de 2003

ANTONIO CARLOS GUELFI – Cel Art QEMA
Chefe de Gabinete do DEP

MINISTÉRIO DA DEFESA EXÉRCITO BRASILEIRO DEPARTAMENTO DE ENSINO E PESQUISA

MINISTRY OF DEFENSE
BRAZILIAN ARMY
DECEx - DESMil
OFFICERS IMPROVEMENT SCHOOL (1919)
(DECEx: Department of Education and Culture of the Army
DESMil: Division of Military Higher Education)

ACADEMIC TRANSCRIPT

1.GRADUATE

Name: **Luiz Henrique Garcez Lotufo** Identity: **023260093-2**
Parents: **Luiz de Gonzaga Lotufo** and **Olarpha Garcez Lotufo**
Date of birth: **10/05/1964** City: **Taubaté** State: **São Paulo**

2. PROGRAM

Title: **Career Officers Improvement Course - Cavalry** Code: **DAA01**
Start Date: **02/20/1995** Completion Date: **11/27/1996**
Workload: **2110** Credits Earned: **141**
Degree awarded: ***Improvement in Military Operations - Graduate Program (Stricto Sensu)***

3. CURRICULAR STRUCTURE

SUBJECT	DURATION		SUBJECT	DURATION	
	HOURS	CREDIT		HOURS	CREDIT
Organization and Employment of Branch I	150	10	Study, Tactical Planning and Operational Employment I	128	9
Introduction to Joint Combined-Arms Doctrine	120	8	Organization and Employment of Branch II	370	25
Integrated Security I	20	1	Organization and Employment of Branch III	240	16
Military History I	75	5	Study, Tactical Planning, and Operational Employment II	157	11
Higher Education Methodology	20	1	Integrated Security II	56	4
Scientific Research Methodology I	45	3	Military History II	20	1
Military Leadership I	60	4	Management Excellence II	34	2
Managerial Excellence I	68	4	Guidance / Supervision II	39	3
Military Administration I	42	3	Military Leadership and Ethics Military Professionalism	42	3
Advanced Scientific Research	45	3	Statistics I	20	1
Research Practice I	45	3	Research Practice II	20	1
Guidance / Supervision I	30	2	Military Administration II	34	2
----------	-----	-----	Military Physical Training	230	15

Rio de Janeiro, RJ, October 15, 2025

Ricardo José Madureira Teixeira - Captain
Secretary of the Division of Education and Research - 047835843-5

Augusto José Moraes Monteiro - Colonel
Head of the Division of Education and Research - 011398184-9

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.


_____ Date: December 03, 2025.

MINISTÉRIO DA DEFESA
EXÉRCITO BRASILEIRO
DECEx - DESMil
ESCOLA DE APERFEIÇOAMENTO DE OFICIAIS (1919)

HISTÓRICO ESCOLAR

1. CONCLUDENTE

Nome:**Luiz Henrique Garcez Lotufo** Identidade: **023260093-2**
Filiação: **Luiz de Gonzaga Lotufo** e **Olarpha Garcez Lotufo**
Data de nascimento: **05/10/1964** Município: **Taubaté** UF: **SP**

2. CURSO

Denominação: **Curso de Aperfeiçoamento de Oficias de Carreira - Cavalaria** Código: **DAA01**
Data Início: **20/02/1995** Data Conclusão: **27/11/1996**
Total de Horas: **2110** Créditos obtidos: **141**
Título obtido: ***Aperfeiçoamento em Operações Militares - Pós-Graduação Universitária Stricto Sensu***

3. ESTRUTURA CURRICULAR

DISCIPLINA	DURAÇÃO		DISCIPLINA	DURAÇÃO	
	HORAS	CRÉDITO		HORAS	CRÉDITO
Organização e Emprego da Arma I	150	10	Estudo, Planejamento Tático e Emprego Operacional I	128	9
Introdução à Doutrina Comum Interarmas	120	8	Organização e Emprego da Arma II	370	25
Segurança Integrada I	20	1	Organização e Emprego da Arma III	240	16
História Militar I	75	5	Estudo, Planejamento Tático e Emprego Operacional II	157	11
Metodologia do Ensino Superior	20	1	Segurança Integrada II	56	4
Metodologia da Pesquisa Científica I	45	3	História Militar II	20	1
Liderança Militar I	60	4	Excelência Gerencial II	34	2
Excelência Gerencial I	68	4	Orientação II	39	3
Administração Militar I	42	3	Liderança Militar e Ética Profissional Militar	42	3
Aprofundamento em Pesquisa Cientifica	45	3	Estatística I	20	1
Prática de Pesquisa I	45	3	Prática de Pesquisa II	20	1
Orientação I	30	2	Administração Militar II	34	2
----------	-----	-----	Treinamento Físico Militar	230	15

Rio de Janeiro, RJ, 15 de outubro de 2025

Ricardo José Madureira Teixeira - Cap
Secretário da Divisão de Ensino e Pesquisa - 047835843-5

Augusto José Moraes Monteiro - Cel
Chefe da Divisão de Ensino e Pesquisa - 011398184-9

REPÚBLICA FEDERATIVA DO BRASIL ORDEM E PROGRESSO EsAO

MINISTRY OF DEFENSE
BRAZILIAN ARMY

Officers Improvement School

Diploma

I certify that **Captain Luiz Henrique Garcez Lotufo**
completed with satisfactory performance the Officers Improvement Course in **Cavalry** *with distinction* **(MB)** *(Very Good) and is, therefore, granted this Diploma.*

Rio de Janeiro, RJ, **Nov** / **27** / 19 **96**

MANOEL LUIS VALDEVEZ CASTRO - Brigadier General
Commander of the Officers Improvement School

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: December 3, 2025.

REPÚBLICA FEDERATIVA DO BRASIL
EXÉRCITO BRASILEIRO

Escola de Aperfeiçoamento de Oficiais

Diploma

Certifico que o **Cap Luiz Henrique Garcez Lotufo** *concluiu com aproveitamento o Curso de Aperfeiçoamento de Oficiais de* **Cavalaria** *com menção* **MB** *em virtude do que é conferido o presente Diploma.*

Rio de Janeiro, RJ 27 / Nov /1996.

Gen Bda MANOEL LUIS VALDEVEZ CASTRO
Comandante da EsAO

FEDERATIVE REPUBLIC OF BRAZIL
MINISTRY OF DEFENSE
BRAZILIAN ARMY
DECEx - DESMil
AGULHAS NEGRAS MILITARY ACADEMY
(Royal Military Academy / 1811)

*DECEx: Department of Education and Culture of the Army
DESMil: Division of Military Higher Education

Diploma

The Commander of the Agulhas Negras Military Academy, considering the completion with satisfactory performance of the Career **Cavalry Officer** Training Course on **December 10, 1988**, confers upon

Luiz Henrique Garcez Lotufo

Identification No. **028260098-2**, the degree of Bachelor in Military Sciences, and hereby grants this diploma so that he may enjoy all legal rights and prerogatives.

Resende - Rio de Janeiro, April 9, 2013

LUIZ HENRIQUE GARCEZ LOTUFO
Graduate

Brigadier General JÚLIO CESAR DE ARRUDA
Commander of the Agulhas Negras Military Academy

ARMY EDUCATION LAW (Law No. 9,786 of February 8, 1999)
Article 13 – The officer training courses of the Agulhas Negras Military Academy are of university level, granting graduates the degree of Bachelor in Military Sciences.

REGULATION OF THE ARMY EDUCATION LAW (Decree No. 3,182 of September 23, 1999)
Article 17 – The university or higher-level degree within the Army Education System is equivalent to the level of higher education, in accordance with Article 83 of Law No. 9,394 of December 23, 1996, which establishes the guidelines and bases of national education.
Article 18 – The university or higher-level courses and programs maintained by the Army confer diplomas and degreees equivalent to those granted by the national higher education system.

I – Undergraduate and training courses, of university level, provided that the student completes the course with satisfactory performance and meets the other requirements established in the regulations of the educational institutions, receiving the degree of Bachelor.
Article 24 – It is the responsibility of the commander of the educational institution to certify the completion of the courses and training programs conducted at the institution and, when applicable, to grant diplomas.
Sole paragraph – The records of course or training completion certificates and of diplomas shall be made at the educational institution itself.
Article 43 – It is the responsibility of the Chief of the Army General Staff, in his own act or by delegation, to grant or confer university or higher-level degrees to graduates of courses conducted, up to the date of publication of this decree (1999), at educational institutions maintained by the Army, provided that they meet the requirements established in this legal instrument and in the regulations of the military institutions in force at the time of completion of the respective courses.

DISPATCH OF THE MINISTER OF EDUCATION (published in the Official Gazette of the UnionNo. 58, Section 1, Tuesday, March 26, 2002)
"On March 22, 2002, under the terms of Article 2 of Law No. 9,131 of November 24, 1995, the Minister of Education APPROVES Opinion No. 1,295/2001 of the Higher Education Chamber of the National Education Council, which establishes rules regarding the admission of study equivalencies and the inclusion of Military Sciences among the Sciences studied in the country, as recorded in Processes No. 23001.000426/2000-67 and No. 23001.000172/99-55."

ORDINANCE No. 055, of May 15, 2003, of the DEP, amended by ORDINANCE No. 001, of January 15, 2009, of the ARMY DEPARTMENT OF EDUCATION AND CULTURE
Delegates authority to the Commander of the Agulhas Negras Military Academy to grant degrees and university qualification to graduates of AMAN courses.

Brazilian Army – Agulhas Negras Military Academy
2nd Copy of the Diploma registered under No. 791
Book 001 **Pages** 014 **on** April 9, 2013
Internal Bulletin No. 009 – AMAN, December 10, 1988
Under the terms of Article 24 of Decree No. 3,182 of 09/23/1999
(Regulation of the Army Education Law)

ALEXANDRE NEVES LEMOS ESTEVES – Major
Head of the Personnel Division of the Agulhas Negras Military Academy

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: December 3, 2025.

REPÚBLICA FEDERATIVA DO BRASIL
MINISTÉRIO DA DEFESA
EXÉRCITO BRASILEIRO
DECEx - DESMil
ACADEMIA MILITAR DAS AGULHAS NEGRAS
(Academia Real Militar / 1811)

Diploma

O Comandante da Academia Militar das Agulhas Negras, tendo em vista a conclusão, com aproveitamento, do Curso de Formação de Oficial de Carreira **da Arma de Cavalaria** em **10 Dez 88** confere o título de Bacharel em Ciências Militares a

Luiz Henrique Garcez Lotufo

identidade nº **028260093-2**, e outorga-lhe o presente diploma, para que possa gozar de todos os direitos e prerrogativas legais.

Resende-RJ, 09 de abril de 2013

LUIZ HENRIQUE GARCEZ LOTUFO
Diplomado

General de Brigada JÚLIO CESAR DE ARRUDA
Comandante da Academia Militar das Agulhas Negras

LEI DO ENSINO NO EXÉRCITO (Lei Nº 9.86, de 08 de fevereiro de 1999)
Art. 13 – Os cursos de formação de oficiais da Academia Militar das Agulhas Negras são de grau universitário, conferindo-se aos diplomados a graduação de Bacharel em Ciências Militares.

REGULAMENTO DA LEI DO ENSINO NO EXÉRCITO (Decreto Nº 3.182, de 23 de setembro de 1999)
Art. 17 – O grau universitário ou superior do Sistema de Ensino do Exército é equivalente ao nível de educação superior, na forma do art. 83 da Lei nº 9.394, de 23 de dezembro de 1996, que estabelece as diretrizes e bases da educação nacional.
Art. 18 – Os cursos e programas de grau universitário ou superior, mantidos pelo Exército, possuem as seguintes diplomações e titulações, equivalentes às conferidas à educação superior nacional.
I – Cursos de graduação e formação, graduação universitária, desde que o aluno conclua o curso com aproveitamento e preencha as demais exigências contidas nos regulamentos dos estabelecimentos de ensino, recebendo o título de Bacharel.
Art. 24 – Compete ao comandante do estabelecimento de ensino certificar a conclusão dos cursos e estágios realizados em sua instituição e, quando couber, conceder diplomas.
Parágrafo único – Os registros dos certificados de conclusão de curso ou estágio e dos diplomas são feitos no próprio estabelecimento de ensino.
Art.43 – Compete ao Chefe do Estado-Maior do Exército, em ato próprio ou delegado, conceder ou suprir titulações e graus universitários ou superiores aos concludentes de cursos realizados, até a data da publicação deste decreto (1999), em estabelecimentos de ensinos mantidos pelo Exército, desde que preencham as exigências contidas neste instrumento legal e nos regulamentos das instituições militares, em vigor na época da conclusão dos respectivos cursos.

DESPACHO DO MINISTRO DA EDUCAÇÃO (publicado no DOU nº 58, seção 1, terça-feira, 26 de março de 2002)
"Em 22 de março de 2002, nos termos do Art 2º da Lei nº 9.131, de 24 de novembro de 1995, o Ministro de Estado da Educação HOMOLOGA o parecer nº 1.295/2001, da Câmara de Educação Superior do Conselho Nacional de Educação, que estabelece normas relativas à admissão de equivalência de estudos e inclusão das Ciências Militares no rol das Ciências estudadas no país, conforme consta nos Processos nº 23001.000426/2000-67 e nº 23001.000172/99-55."

PORTARIA Nº 055, de 15 MAI 2003, do DEP, alterada pela PORTARIA Nº 001, de 15 JAN 2009, do DEPARTAMENTO DE EDUCAÇÃO E CULTURA DO EXÉRCITO
Delega competência ao Comandante da Academia Militar das Agulhas Negras para conceder titulações e graus universitários aos concludentes dos cursos da AMAN.

Exército Brasileiro – Academia Militar das Agulhas Negras
2ª Via do Diploma registrado sob nº 791
Livro 001 **Folhas** 014 **em** 09 Abr 2013
Boletim Interno nº 009 – AMAN, de 10 de dezembro de 1988.
Nos termos do Art. 24, do Decreto nº 3.182 de 23/09/99.
(Regulamento da Lei do Ensino no Exército)

ALEXANDRE NEVES LEMOS ESTEVES - Major
Chefe da Divisão de Pessoal da AMAN

MINISTRY OF DEFENSE
BRAZILIAN ARMY
DECEx - DESMil
AGULHAS NEGRAS MILITARY ACADEMY
(Royal Military Academy / 1811)

(DECEx: Department of Education and Culture of the Army
DESMil: Division of Military Higher Education)

A C A D E M I C T R A N S C R I P T

1. GRADUATE

Name: LUIZ HENRIQUE GARCEZ LOTUFO; Identity: 023.260.093-2, Issuing Authority: MD; Filiation: LUIZ DE GONZAGA LOTUFO and OLARPHA GARCEZ LOTUFO; Date of Birth: OCTOBER 05, 1964; City: TAUBATÉ; State: São Paulo.

2. PROGRAM

Title: Military Sciences

Code: 21095 Start Date: FEB 25, 1985 Completion Date: DEC 10, 1988

Workload: 4,059 Credits Earned: 271

Degree/Qualification Awarded: Bachelor of Military Sciences

3. CURRICULAR STRUCTURE

SUBJECT	DURATION		Grade
	HOURS	CREDIT	
DESCRIPTIVE GEOMETRY	60	4	7.7
STATISTICS	60	4	9.2
MATHEMATICS	120	8	8.8
MECHANICS	60	4	8.8
WRITING AND STYLE	60	4	7.5
PHYSICS	100	7	7.7
COMPUTER SCIENCE	60	4	8.9
CHEMISTRY	60	4	9.1
WRITING AND STYLE	60	4	7.6
TOPOGRAPHY	60	4	7.7
ECONOMICS AND FINANCE	60	4	7.8
PHILOSOPHY	60	4	8.4
MILITARY HISTORY	70	5	7.4
ENGLISH	64	4	9.4
PSYCHOLOGY	90	6	9.0
GEOGRAPHY	35	2	7.6
MILITARY HISTORY	40	3	8.0
LAW	90	6	8.0
ENGLISH	64	4	9.5

GROUP I	87	6	8.3
GROUP II	238	16	8.1
GROUP III	146	10	8.0
GROUP I	87	6	9.0
GROUP II	238	16	7.2
GROUP III	262	17	7.4
GROUP IV	262	17	8.1
GROUP I	87	6	8.8
GROUP II	238	16	8.1
GROUP III	146	10	9.1
GROUP IV	262	17	8.5
GROUP I	87	6	8.5
GROUP II	238	16	8.0
GROUP III	146	10	7.4
GROUP IV	262	17	8.0

Note: Syllabus attached.

Resende, RJ, September 24, 2025.

FEDERATIVE REPUBLIC OF BRAZIL
ORDER AND PROGRESS

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MARCUS VINÍCIUS CAMPOS SIQUEIRA - Major
Secretary of the Teaching Division

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GIL VALADÃO FORTES - Colonel
Head of the Teaching Division

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.


_____ Date: December 03, 2025.

MINISTÉRIO DA DEFESA
EXÉRCITO BRASILEIRO
DECEx - DESMil
ACADEMIA MILITAR DAS AGULHAS NEGRAS
(Academia Real Militar/1811)

H I S T Ó R I C O E S C O L A R

1. CONCLUDENTE

Nome: LUIZ HENRIQUE GARCEZ LOTUFO; Identidade: 023.260.093-2, Órgão Expedidor: MD; Filiação: LUIZ DE GONZAGA LOTUFO e OLARPHA GARCEZ LOTUFO; Data de Nascimento: 05 OUT 1964; Município: TAUBATÉ; UF: SP.

2. CURSO

Denominação: Ciências Militares

Código: 21095 Data de Início: 25 FEV 1985 Data de Conclusão: 10 DEZ 1988

Total de Horas: 4.059 Créditos obtidos: 271

Grau/Título Obtido: Bacharel em Ciências Militares

3. ESTRUTURA CURRICULAR

DISCIPLINA	DURAÇÃO		Rendimento
	HORAS	CRÉDITO	
GEOMETRIA DESCRITIVA	60	4	7,7
ESTATÍSTICA	60	4	9,2
MATEMÁTICA	120	8	8,8
MECÂNICA	60	4	8,8
REDAÇÃO E ESTILÍSTICA	60	4	7,5
FÍSICA	100	7	7,7
INFORMÁTICA	60	4	8,9
QUÍMICA	60	4	9,1
REDAÇÃO E ESTILÍSTICA	60	4	7,6
TOPOGRAFIA	60	4	7,7
ECONOMIA E FINANÇAS	60	4	7,8
FILOSOFIA	60	4	8,4
HISTÓRIA MILITAR	70	5	7,4
INGLÊS	64	4	9,4
PSICOLOGIA	90	6	9,0
GEOGRAFIA	35	2	7,6
HISTÓRIA MILITAR	40	3	8,0
DIREITO	90	6	8,0
INGLÊS	64	4	9,5

GRUPO I	87	6	8,3
GRUPO II	238	16	8,1
GRUPO III	146	10	8,0
GRUPO I	87	6	9,0
GRUPO II	238	16	7,2
GRUPO III	262	17	7,4
GRUPO IV	262	17	8,1
GRUPO I	87	6	8,8
GRUPO II	238	16	8,1
GRUPO III	146	10	9,1
GRUPO IV	262	17	8,5
GRUPO I	87	6	8,5
GRUPO II	238	16	8,0
GRUPO III	146	10	7,4
GRUPO IV	262	17	8,0

Obs: Ementas em anexo.

Resende, RJ, 24 de setembro de 2025.

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MARCUS VINÍCIUS CAMPOS SIQUEIRA - Maj

Secretário da Divisão de Ensino

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GIL VALADÃO FORTES - Cel

Chefe da Divisão de Ensino

SYLLABI OF HIGHER EDUCATION COURSES

- **DESCRIPTIVE GEOMETRY**

UNIT I - **FUNDAMENTAL ELEMENTS** - projection systems. Understand the existing projection systems, indicating and describing those used at the AMAN *(Agulhas Negras Military Academy)*; bi-projection system. Fundamental elements. Solve, using epure, problems related to point, line, and plane; solve, using epure, intersection problems (lines and planes); solve, using epure, problems of parallelism and perpendicularity between lines and planes; solve problems, using epure, using descriptive methods (change of plane, rotation, and folding); review of the knowledge presented in UNIT I**.**

UNIT II - HOMOLOGY AND PLANE FIGURES - homology systems. Synthesize, using epure, the elements of a homological system and affinities; plane figures: solve, using epure, problems involving plane figures, polygons, and circumferences, using descriptive methods and homology; review of the knowledge presented in UNIT II.

UNIT III - **MEASUREMENT PROBLEMS** - distance between point and plane. Solve, using epure, problems involving distance between two points, point and line, point and plane, and between two planes. Angles, solve, using epure, problems involving angle between two lines, line and plane, and between planes; review of the knowledge presented in UNIT III.

UNIT IV - **POLYHEDRA** - Representation of polyhedra: solve, using epure, problems of representation and visibility of regular and irregular convex polyhedra (pyramids, prisms, tetrahedron, and regular hexahedra); plane sections. Solve, using epure, problems of plane sections in convex polyhedra; review of the knowledge presented in UNIT IV.

UNIT V - **ROUND SOLIDS** - conical and cylindrical surfaces. Tangent planes; representation of the cone and cylinder; right circular cone; plane sections; sphere; intersections; and tangent planes. Solve, using epure, fundamental construction problems involving conical and cylindrical surfaces; solve, using epure, problems related to the representation of the cone and cylinder; solve, using epure, problems involving the cone as an auxiliary surface; solve, using epure, problems involving the determination of plane sections of conical surfaces; solve, using epure, problems related to the representation of the sphere; solve, using epure, problems involving intersections of a line and a plane with the sphere and tangent planes; review the topics presented in UNIT V.

UNIT VI - **DESCRIPTIVE GEOMETRY** - fundamental elements. Parallelism and perpendicularity; distances and intersections; angles; plane figures; topographic surfaces. Understand the fundamental elements and represent, using epure, a point, a line, and a plane; solve, using epure, problems related to parallelism and perpendicularity; solve, using epure, problems related to distances and intersections; solve, using epure, problems related to plane figures; solve, using epure, problems related to angles; integrate knowledge and concepts from descriptive geometry and apply them to the study of military topography; review the topics presented in UNIT VI.

UNIT VII - **PERSPECTIVE** - fundamental elements of conical perspective. Elevated perspective. Cavalier perspective. Understand the fundamental elements of conical perspective and solve, using epure, problems involving points, lines, and plane figures on the ground plane; solve, using epure, problems of perspective from an elevated viewpoint involving points, lines, plane figures, and geometric solids; understand the elements of cavalier perspective and solve, using epure, problems involving points, lines, and plane figures; solve, using epure, problems related to cavalier perspective of elevated points and geometric solids, in accordance with Technical Drawing standards; review the topics presented in UNIT VII.

- **STATISTICS**

UNIT I - **DESCRIPTIVE STATISTICS** - Objective of statistics, relationships with probability calculus, universe, population, and sample. Statistical data collection, processing and presentation, statistical series.

UNIT II - **MILITARY STATISTICS** - Statistics within the scope of the Armed Forces, particularly the Brazilian Army, specific legislation.

UNIT III - **FREQUENCY DISTRIBUTION** - Fundamental definitions, organization of frequency distributions, graphical representation of frequency distributions, histograms, frequency polygon, ogive curve. Characteristics of a frequency distribution. Moments. statistical concepts, types, relationships between them, statistical indices based on moments, measures of central tendency, dispersion, skewness, and kurtosis.

UNIT IV - **ELEMENTARY PROBABILITY THEORY** - Concept of probability. Sample space of an experiment. Simple events, combination of events, dependent events, independent events. Conditional

probability, probability of the union of events, probability of the intersection of events.

UNIT V - PROBABILITY DISTRIBUTIONS - Discrete random variables. Continuous random variables. Binomial distribution. Poisson distribution. Normal distribution. Chi-square distribution

UNIT VI - SAMPLING - Basic concepts, sampling techniques. Simple random sampling, sampling distributions.

UNIT VII - STATISTICAL QUALITY CONTROL - Concept followed by complete historical background and sampling inspection. Inspection by attributes and by variables. Unit of product or item. Product specification. Classification of defects. Quality levels. Producer and consumer risks. Sampling distribution of defectives. Applications of sampling distributions, hypergeometric, binomial, and Poisson. Construction of control charts. Chart analysis, rules for detection of assignable causes.

UNIT VIII - CORRELATION - Linear and non-linear correlation, simple and multiple correlation, partial correlation, correlation diagram. Measures of correlation. Estimation equation, practical calculation of the estimation equation. Standard error of estimate. Calculation. Correlation coefficient. Calculation of Pearson's coefficient. Calculation of correlation coefficient for grouped data.

UNIT IX - INDEX NUMBERS - General concepts of index numbers, classification. Simple aggregate index number. Chain index. Simple index numbers, arithmetic, geometric, harmonic, median, weighted index numbers. Laspeyres. Paasche. Drobisch. Edgeworth. Marshall. Fisher's ideal index. Mathematical tests for acceptance of index numbers. Deflation of index number series. Consumer price index (cost of living index).

- **MATHEMATICS**

UNIT I - ALGEBRA - course introduction. Rectangular coordinates in R2. Equation and geometric locus. Straight line, circumference, vector algebra, conics. Initial motivation for the study of the subject; introduce the cadet to the solution of simple geometric locus problems; enable the cadet to recognize and construct a straight line, circumference, or conic section; introduce vector calculus in the solution of geometric problems; establish the equation and construct a conic section in coordinate axes.

UNIT II - DIFFERENTIAL CALCULUS - Limits and continuity, differentiation rules, applications of derivatives, higher-order derivatives and applications. Transcendental functions, differentiation of parametric equations. Differentials. Understanding the concept of function and the notions of limit and continuity; understanding the concept of continuous functions; learning and developing techniques for limit operations; understanding the notion of derivatives with their geometric and physical interpretations; applying calculus to transcendental and parametric functions; introducing the concept of differentials as a step toward integration.

UNIT III - INTEGRAL CALCULUS - immediate integrals. Integration methods. Determination of the integration constant. Definite integral. Areas. Improper integrals. Integral as a summation process. Plane areas. Polar coordinates. Areas in polar coordinates. Volume of solids of revolution. Objectives: understand the concept of indefinite integral; learn and develop integration techniques; understand the geometric and physical meaning of the integration constant; apply integral calculus in the calculation of areas; extend the concept of integrals to discontinuous functions through improper integrals; understand the concept of integral as a limit of a sum; apply calculus in polar coordinates; determine the volume of solids of revolution.

UNIT IV - ANALYTICAL GEOMETRY - coordinate transformation. Summary study of conic sections. Line in R3. Planes. Quadric surfaces. Objectives: enable the cadet to simplify an equation through coordinate transformation; study conic sections with axes in any position; identify lines and planes in three-dimensional space; apply acquired knowledge in R3 to the study of quadric surfaces.

UNIT V - FUNCTIONS OF SEVERAL VARIABLES - functions of several variables. Partial derivatives. Total differential. Derivatives of implicit functions. Higher-order partial derivatives. Objectives: enable the cadet to differentiate functions of more than one variable; establish partial and total differentials; extend partial derivatives to implicit functions; successively differentiate functions of several variables.

UNIT VI - DIFFERENTIAL EQUATIONS - definitions. First-order differential equations. Second-order differential equations with constant coefficients. Objectives: present the different types of differential equations encountered in disciplines that use calculus; enable the cadet to solve the differential equations

most commonly found in Physics, Mechanics, and Electricity.

- **MECHANICS**

UNIT I - BASIC FUNDAMENTALS - Principles and fundamental concepts. Define basic and derived quantities, use systems of units, apply scientific notation within the required precision. Vectors - define basic and derived quantities, use systems of units, apply scientific notation within the required precision. Define vector quantities and vectors, add or subtract vector systems graphically and analytically. Forces - define force and force vector, calculate the moment of a force and of a system of forces, calculate the resultant of a system of forces.

UNIT II - STATICS OF RIGID BODIES - Fundamental concepts. Apply quantities, definitions, principles, and conditions associated with equilibrium analysis. Apply the general method of statics for equilibrium analysis; analyze the equilibrium of simple static systems. Constraints and Reactions - apply the general method of statics for equilibrium analysis, analyze the equilibrium of simple static systems. Friction: analyze the equilibrium of static systems involving friction forces, manifested as sliding friction or friction in belts and cables.

UNIT III - KINEMATICS - point kinematics: identify kinematic quantities and their expressions in rectangular, polar, or cylindrical coordinates; identify the occurrence of centripetal acceleration. Rigid Body Kinematics: analyze the velocity field in a rigid body in simple motion: translation, rotation, plane motion; analyze the acceleration field in a rigid body in simple motion: translation, rotation, plane motion.

UNIT IV - DYNAMICS OF A PARTICLE - Newton's laws: analyze the motion of a system of particles through the application of the concepts and energy principles of mechanics. Impulse and linear momentum: analyze the motion of a system of particles through the application of the concepts and principles associated with force impulse and linear momentum. Angular impulse and angular momentum: analyze the motion of a material system through the application of the concepts and principles associated with angular impulse and angular momentum. Applications: apply the general concepts and laws of dynamics to the analysis of practical examples.

UNIT V - DYNAMICS OF RIGID BODIES - translation and rotation: analyze translational and rotational motion in light of the general laws of dynamics. Rolling motion: analyze rolling motion in light of the general laws of dynamics**.**

- **WRITING AND STYLISTICS**

UNIT I - THE SENTENCE - sentence theory. Understand the various types of sentences. Practice the use of different sentence types. Practice the use of different sentence types. Master the various sentence types through written exercises.

UNIT II - THE PARAGRAPH - the paragraph as a unit of composition, its importance. Understand the stylistic importance of different types of paragraphs. Practice the use of paragraphs. Master paragraph construction and its appropriate length.

UNIT III - HOW TO DEVELOP IDEAS - reading: its dynamics. Select and organize ideas obtained through reading. Practice reading. Develop mastery in the art of collecting and selecting ideas.

UNIT IV - PLANNING AND DEVELOPMENT OF WRITING - writing theory, typology. Understand the main types of discourse and their characteristics. Argumentation, planning, and outlining of writing. Practice writing techniques through structured planning. Exercises. Practice different types of writing. Master written discourse and its forms.

UNIT V - STUDY OF FICTION WORKS - reading fiction works. Develop reading skills, build reading habits, and interpret texts.

UNIT VI - THEORY AND PRACTICE OF READING - reading theory. Acquire reading methodology and techniques, practice reading. Develop the habit of selective reading; foster attitudes conducive to effective comprehension.

- **PHYSICS**

UNIT I - NUCLEAR PHYSICS historical background and review of fundamental concepts. Quantum structure of light and electricity. Photoelectric effect. X-rays. Nuclear structure. Artificial radioactivity. Fission and nuclear fusion reactions. Chain reactions in reactors and bombs. Radiation hazards, detection and conductors of radiation. Measurement of radioactive decay and absorption.

UNIT II - ELECTRIC CIRCUITS AND DIRECT CURRENTS - structure of matter, electric charges. Electrical conductors. Electrical resistance. OHM's Law, JOULE's Law, AND KIRCHHOFF's Laws. Calculation of direct current circuits.

UNIT III - ELECTROMAGNETISM - permanent magnets. Electromagnetic field and its laws. Inductance. Transient effects in inductive circuits. Induced electromotive force.

UNIT IV - ALTERNATING CURRENTS - quantities. Representation of standard quantities in circuit calculations. RLC circuits. Resonance, balanced three-phase loads.

UNIT V - PERFORMANCE OF ELECTRICAL MACHINES - direct current machines, alternating current machines. Transformers.

UNIT VI - COMPONENTS AND TRANSISTORS - resistors, inductors, and capacitors. Electron emission. Vacuum tube, diode. Fundamentals of the transistor. Rectifiers, filtering. Triode.

UNIT VII - FUNDAMENTAL CIRCUITS - configuration, biasing, and stabilization of the transistor. Voltage amplifiers.

UNIT VIII - RADIO RECEPTION - Transducers. Multi-electrode vacuum tubes; power amplifiers. Resonant circuit. Radio frequency amplifier. AM modulation, oscillator. Superheterodyne receiver.

UNIT IX - ACOUSTICS - Wave motion, transverse waves on a string, pressure variation in a sound wave. Vibration of strings and air columns, standing waves, strings fixed at both ends, beats. Sounding strings, ear and hearing, intensity, DOPPLER effect, reflection, refraction, and diffraction of sound.

UNIT X - OPTICS - nature and speed of light, wavefront and HUYGENS' principle, refractive index and wavelength. Laws of reflection and refraction on plane surfaces, total internal reflection. Polarization of light, polarization by reflection, BREWSTER's law, polarization by double refraction, degree of polarization, Malus' law. Interference: thin-film interference, Newton's rings, YOUNG's double-slit experiment. Diffraction: concept of interference extended to diffraction, FRAUNHOFER diffraction by a rectangular slit, FRESNEL diffraction by a circular aperture.

UNIT XI - THERMODYNAMIC AND ENERGY PROPERTIES - introduction, working substance. System, pure substance, phases, properties, and cite. Specific volume and density, specific weight and fluid pressure, pressure, processes, cycles. Internal energy, work in a system without flow; heat; flow work; other forms of energy. Closed systems and open systems, conservation of energy (First Law), degradation of energy (Second Law), energy equation for steady flow, energy equation for systems. Enthalpy. Reversibility, specific heat, specific heat at constant volume, specific heat at constant pressure. Entropy, T-S diagram; PdV integral in reversible processes, molar specific heat.

UNIT XII - THERMODYNAMIC PROCESSES - BOYLE's law, CHARLES's law, equation and analysis, gas constant, AVOGARDO's law, universal gas constant. Internal energy of an ideal gas, enthalpy of an ideal gas, MEYERS's relation. Constant-volume process, constant-pressure process, isothermal process. Isentropic process, expansion and compression ratios, pressure ratios. Polytropic process, effect of variation of N in polytropic equations.

UNIT XIII - THERMAL ANALYSIS AND CYCLE ANALYSIS - CARNOT cycle, mean effective pressure (MEP), CARNOT cycle of an ideal gas, work measurement, indicator diagram. Indicator diagram for a compressor, clearance volume and clearance ratio. Volumetric capacity and efficiency. Four-stroke cycle, OTTO cycle, real diagram for an OTTO engine, Diesel cycle, comparison with the OTTO cycle, two-stroke cycle, dual combustion cycle. Operation of a simple gas turbine plant, BRAYTON cycle, jet propulsion.

- **INFORMATICS**

UNIT I - INTRODUCTION - Digital computer, basic functional units of a computer: input and storage units; CPU and output units. Instructions and computer programs: representation of information.

UNIT II - BASIC FORTRAN - Specific objectives of the unit: define compiler; distinguish source program from object program; identify the character set; distinguish integer numbers from real numbers; distinguish constants from variables in FORTRAN; define arithmetic citement; identify arithmetic citement; apply arithmetic citement; distinguish STOP and END citements; identify titles and comment lines; define input and output citements; apply input and output citements; define descriptive methods; fill out a FORTRAN coding sheet; define control citements GO TO and IF; apply control citements GO TO and IF; distinguish

GO TO from controlled GO TO; define subscripted or indexed variables; distinguish subscripted variables from simple variables; apply the DIMENSION citement; identify permissible forms of subscripts; distinguish set input from simple input; distinguish set output from simple output; apply set input and output; identify symbols in flowcharts; develop logical reasoning for problem-solving in computing; construct flowcharts; terminate programs; define the DO citement; apply the DO citement; understand that the CONTINUE citement is associated with the DO citement; use tracing techniques. Introduction. Compiler, source programs and object program. Basic set of FORTRAN citements. Character set. Numerical data. Integer numbers. Real numbers. Constants and variables. Variable names and variable types. FORTRAN expressions. Expression modes and predefined functions. Arithmetic citement. STOP and END citements. Titles and comment lines. Flowcharts: symbols. Steps for solving a problem. Flowchart construction techniques. Repetitive programs. Program termination techniques. Input (READ) and output (WRITE) citements. Simplified FORMAT citement. Descriptive methods. FORTRAN coding sheet. Card coding and control citements. GO TO and IF. Compound conditions. Controlled GO TO citement. Arrays. Subscripted or indexed variables. DIMENSION citement. Permissible forms of subscripts. Simplified set INPUT. Simplified set OUTPUT. Interactive command - GO citement. Rules associated with the DO citement. CONTINUE citement. Tracing technique.

UNIT III - INPUT AND OUTPUT - Introduction. INPUT and OUTPUT equipment. Basic concept and logical sequence. READ and WRITE citements. Flexibility of I/O citements. The “I” specification or format code “I”. The “F” specification or format code “F”. The “E” specification or format code “E”. The “H” specification and literal data in apostrophes. Printer control. The “A” specification or format code “A”. The “X” specification or format code “X”. Other flexibilities of FORMAT citements. MAGNETIC TAPE - INPUT AND OUTPUT. Input and Output using magnetic disks.

UNIT IV - SUBPROGRAMS, FUNCTIONS, AND SUBROUTINES - Introduction. Subprograms in FORTRAN. Predefined function subprograms. Function subprograms, declaration and application. Function subprograms and their application. Subprograms, subroutines and their application. The EXTERNAL citement and its application.

UNIT V - FORTRAN EXTENSIONS - Specification citements. REAL and INTEGER citements. DATA and COMPLEX citements. DOUBLE PRECISION and LOGICAL citements. EQUIVALENCE citement. COMMON citements.

UNIT VI - FORTRAN APPLICATIONS - Calculation of fuel tank volume. Calculation of the area of a military installation. Inventory control.

- **CHEMISTRY**

UNIT I - NOTATION AND NOMENCLATURE OF INORGANIC CHEMISTRY - (Review). Oxidation and reduction (Review): exercises on notation and nomenclature using the distributed table. Oxidation and reduction; review of knowledge on redox reactions and balancing of equations. Practical work.

UNIT II - CHEMISTRY OF NON-METALLIC ELEMENTS - Hydrogen: industrial production of hydrogen; laboratory demonstration of production processes and its main properties; laboratory work. Chlorine and combat gases. Military importance (combat gases), production and other uses; demonstration of properties and gas preparation. Laboratory work. Oxygen and ozone; military importance (oxidizing agent in self-propelled munitions). Production and other uses. Demonstration of preparation and main properties. Practical work. Sulfuric acid and nitric acid; preparations used in military factories and applications; demonstrations of their properties; practical work. Carbon. Carbon monoxide and carbon dioxide; allotropic forms of carbon; types of coal (highlighting coal, coke, and charcoal); comparative study of carbon monoxide and dioxide; demonstration of their main properties. Laboratory work.

UNIT III - ORGANIC CHEMISTRY - review topics, fundamentals, classification of functional groups, general formulas, functional groups. Main homologous series and radicals; exercises. Isomerism. Identification of different types of isomers. Hydrocarbons; specific study of methane, ethylene, and acetylene; stoichiometric calculations. Demonstrations and laboratory work. Cyclic hydrocarbons, benzene, toluene, and their derivatives; stoichiometric calculations; demonstrations and laboratory work. Petroleum:

origin, exploration, extraction, refining, transport, and octane rating. Additives and synthetic gasoline. Alcohols: methanol and ethanol. Stoichiometric calculations. Glycerin and nitroglycerin; properties and uses. Carbohydrates, sucrose, cellulose, nitrocellulose, and propellants.
UNIT IV - **THERMOCHEMISTRY** - decomposition of Explosives; classification of explosives; decomposition equations; stoichiometric calculations.
UNIT V - **METALLURGY** - iron and steel metallurgy; metallurgical processes and furnaces, pig iron, steel.
UNIT VI - **RADIOACTIVITY** - natural and artificial radioactivity.

- **WRITING AND STYLISTICS**

UNIT I - **THE SENTENCE** - presentation of the subject, definition of objectives, syntactic structure of the sentence, sentence, period, clause. Stylistic features of the sentence, types of sentences, use of main figures of speech, exercises on sentence usage.
UNIT II - **THE PARAGRAPH** - the paragraph as a unit of composition. The standard paragraph. Importance of the paragraph, paragraph length. Exercises, practice of paragraph construction.
UNIT III - **HOW TO DEVELOP IDEAS** - reading (integration of this unit with work carried out in the first year). Bibliographic research and exercises.
UNIT IV - **PLANNING AND DEVELOPMENT OF WRITING** - description, narration, exposition, exercises with and without text, argumentation, exercises; planning and outlining; technical writing, exercises.
UNIT V - **READING AND INTERPRETATION OF FICTION WORKS** - reading and interpretation of "Serras Azuis" by G. F. de Lima; reading and interpretation of "A Ferro e Fogo" by Josué Guimarães; reading and interpretation of "ÁGUA-MÃE" by José Lins do Rego; reading and interpretation of "Chapadão do Bugre" by M. Palmieri; reading and interpretation of "Incidente em Antares" by Érico Veríssimo.

- **TOPOGRAPHY**

UNIT I - **PRELIMINARIES** - General aspects of Topography. Purpose of Topography. General Topographic problem. Shape of the Earth. Elements of the terrestrial ellipsoid. Altitude. Geographic coordinates, rectangular and polar systems. Representation of Brazilian Maps in the UTM system. Grid azimuth or plotting azimuth. True azimuth. Convergence of meridians. Relationship between grid and true azimuth. Earth's magnetism. Magnetic declination. Magnetic azimuth. Magnetic bearing. Updating of bearing and magnetic azimuth. Relationship between the three directions (Grid North, True North, and Magnetic North). Brazilian Cartographic Plan. Index of nomenclature of Geographic and Topographic Maps**.**
UNIT II - **ANGLE MEASUREMENT AND CALCULATION** - general aspects. Horizontal and vertical angles, definitions, measurement, and methods of determination. Introduction to the theodolite and field notebook. Instrumental practice with the theodolite and completion of the field notebook.
UNIT III - **DISTANCE MEASUREMENT AND CALCULATION** - Diameter measurement. Tacheometry. Instrumental practice with the theodolite.
UNIT IV - **LEVELLING** - General aspects, level surface, earth curvature and refraction, general classification of levelling methods, topographic and geographic benchmarks. Trigonometric levelling. Geometric levelling: linear and radial.
UNIT V - **AZIMUTH** - Analytical determination of grid azimuth and distance between two points with known coordinates. Coordinate transformation.
UNIT VI - **CLASSICAL SURVEYING METHODS** - general aspects of methods. Radiation method. Traversing. Intersection methods, general aspects. Simple triangulation. Forward intersection. Lateral intersection.
UNIT VII - **AREA COMPUTATION** - geometric method. Mechanical method. Analytical method.

- **ECONOMICS AND FINANCE**

UNIT I - **ECONOMIC DOCTRINES** - Mercantilism. Physiocratic School. Classical School. Socialism. Neoliberal Schools.
UNIT II - **FOUNDATIONS OF THE ECONOMIC PROBLEM** - Some aspects of economic knowledge. Definition, objective, and method of investigation. Demographic bases of economic activity. Capital, technology, and natural resources. Introduction to the economic problem. Scarcity, basic choices, and their issues. What, how, how much, and for whom to produce. Basic elements of economic systems. Organization of Economic Activity and the dynamics of free enterprise systems. The role of the Cite in free enterprise systems.

UNIT III - MONEY AND PRICES - Money, supply and demand. Elasticity, total revenue. Inflation and Deflation. Banking system and deposit creation. National Financial System.
UNIT IV - ECONOMIC AND FINANCIAL FUNCTION OF THE CITE - General and Special Public Services. Public Expenditure. Public Expenditure in Brazil. Public Revenue: definition and classification. Brazilian Public Revenue. Taxes, fees, and improvement contributions: concept and distinction. Tax principles. Tax authority in Brazil. Effects of taxes. Personal Taxes. Income tax. Income tax in Brazil. Public Credit and Budget.
UNIT V - NATIONAL ACCOUNTING - Introduction to the study of National Product. Concept and Calculation of National Product. National accounts. National accounts in Brazil.
UNIT VI - INTERNATIONAL TRADE - International trade: general aspects. International trade: Theory of Comparative Advantage. International Trade: Balance of Payments.
UNIT VII - EQUILIBRIUM AND FLUCTUATIONS OF ECONOMIC ACTIVITY - Classical and Keynesian theory. Income, Consumption, and Investment. Equilibrium of Economic Activity. Investment, Income, and gaps. Investment, consumption, and fluctuations.
UNIT VIII - ECONOMIC DEVELOPMENT - Theory of Economic Development. Planning Theory.

- **PHILOSOPHY**

UNIT I - INTRODUCTION TO PHILOSOPHY AND ETHICS - Philosophy: necessity and purpose. Brief history of Philosophy. Moral consciousness. Citement of the Moral Problem. Major Conceptions of Moral Life. Ethics of Interest, Sentiment, and Duty. Moral Experience. Responsibility, Good and Evil. Philosophical Notion of Person. Relationships between Persons.
UNIT II - INTRODUCTION TO LOGIC - Introduction to the study of logic. Deduction. Induction. Notion of Virtue. Justice and Respect for the Person: Charity. Introduction to Political Ideologies. Democracy. Socialism. Marx - Engels - Lenin. Communism. Society. Family Problems, Political Problems and Doctrines. Idea of civilization.

- **MILITARY HISTORY**

UNIT I - FOUNDATIONS OF THE ART OF WAR - Introduction to Military History. Fundamental elements. Principles of war. Maneuver
UNIT II - EVOLUTION OF THE ART OF WAR IN ANCIENT, MEDIEVAL, AND MODERN AGES - Ancient Age: Greek Military Organization. Ancient Age: Battle of Leuctra. Ancient Age: Alexander; Military Institutions. Ancient Age: Battle of Gaugamela. Ancient Age: Roman Military Institutions. Ancient Age: Carthaginian Military Institutions; Battle of Cannae. Middle Ages: Charlemagne and Feudalism. Military Institutions of the Mongols: Genghis Khan; Late Middle Ages. Modern Age: Gustavus Adolphus - 16th and 17th centuries. Modern Age: 18th century - Frederick II. Modern Age: Battle of Leuthen.
UNIT III - EVOLUTION OF THE ART OF WAR IN THE CONTEMPORARY AGE - (19th Century) - French Revolution. Napoleonic Period. Battle of Austerlitz. 19th Century Military Doctrine; Industrial Revolution; Clausewitz. American Civil War; Battle of Gettysburg. Franco-Prussian War; Battle of Sedan.
UNIT IV - MILITARY HISTORY OF BRAZIL - Dutch invasions; Battles of Guararapes. Cisplatine War; Battle of Passo do Rosário (Ituzaingo). Internal Struggles of the Regency period; Actions of Caxias. War of the Triple Alliance; Battle of TUIUTI. War of the Triple Alliance: Humaitá and Piquiciri Maneuvers. War of the Triple Alliance: "Dezembrada". War of the Triple Alliance: Cordillera Campaign and Pursuit of Lopez. Canudos Campaign and Contestado War. Federalist Revolution of 1893. Revolutions of 1922, 1924, 1930, and 1932. Communist Uprising of 1935. Integralist Uprising of 1938 and the political evolution of the country from the "Estado Novo" to 1961. Revolution of March 31, 1964. Brazilian Expeditionary Force (FEB) in Italy: background and 1st phase (Serchio River Valley). FEB in Italy: 2nd phase (Reno Valley) - Battle of Monte Castello. FEB in Italy: 3rd phase (Panaro Valley). Battle of Montese - 4th phase (Po Valley). FEB operations in Italy (summary) and Final Conclusions.
UNIT V - EVOLUTION OF WAR IN THE CONTEMPORARY AGE (20th CENTURY) - Boer War and Russo-Japanese War; Battle of Mukden. Period prior to World War I; background to World War I. World War I: European Theater of Operations; Battles of Cambrai and Tannenberg. World War I: Balkan and Middle Eastern Theaters of Operations. Consequences of World War I; Interwar Period. Spanish Civil War; background to World War II. World War II - Western European Theater of Operations. World War II - Eastern European Theater of Operations; Battle of Stalingrad. World War II - Mediterranean Theater of Operations; Battles of Alam Halfa and El Alamein. World War II: Asian, Pacific, and Atlantic Theaters of Operations. Consequences of World War II. Korean War. Vietnam War. Arab-Israeli Conflicts. Falklands Conflict.

ENGLISH

BASIC LEVEL I

UNIT I - BOOK ONE - English for cadets of AMAN. Language study for learning structures and vocabulary of approximately two thousand five hundred words. LESSON ONE: Introduction of the present tense of verb TO BE (This, Is, It, Is) (affirmative, Interrogative and contracted forms); Commands (Imperative) - Numbers - (Interrogative, Pronoun WHAT; Demonstrative Pronoun THIS: The Present Tense of the verb TO BE (I AM, YOU ARE, HE IS,) (affirmative, interrogative, and contracted forms); Demonstrative Pronoun THAT - Interrogative Pronoun WHO - Ordinal Numbers (1st, 2nd). LESSON TWO: Possessive Adjectives (MY, YOUR, OUR); Possessive Case; ordinal Number (3rd). LESSON THREE: The Present Tense of The verb TO BE (we are, you are) (pl). (they are) affirmative, interrogative and contracted forms; Where, Possessive Adjective your (pl) Here There, Over there. LESSON FOUR: The Present of the verb TO BE (negative and negative contracted forms); Possessive Adjectives (HIS, her, their); Personal Pronoun SHE; Interrogative Adjectives (HIS, HER, THEIR) Personal Pronoun SHE Interrogative WHOSE. LESSON FIVE: THERE IS and THERE ARE (affirmative and interrogative forms); Colors HOW MANY; Interrogative Pronoun WHICH; Ordinal Numbers (4th, 5th, 6th and 7th). LESSON SIX: THERE IS and THERE ARE (negative form); Demonstrative Pronouns THESE and THOSE; SOME and NO. LESSON SEVEN: Introduction Of the Present Continuous TENSE (affirmative, interrogative, contracted, and negative contracted forms); TIME; Number Eleven. LESSON EIGHT: HAVE (affirmative form; interrogative and negative forms with DO); DATE; Ordinal Number 8th; Number Twelve. LESSON NINE: The Present Tense of the verb TO HAVE (HAS, interrogative, negative and negative contracted forms with DO and DOES); TIME (minutes after); Number forms thirteen to twenty. LESSON TEN: The Present Tense Of Regular and Irregular Verbs (affirmative, interrogative, negative and negative contracted forms With DO); Ordinal Number 9th HOW MUCH; Colors; Numbers. LESSON ELEVEN: The Present Tense Of Regular and Irregular Verbs (affirmative, interrogative, negative and negative contracted forms With DO and DOES); Adverbs of Frequency (GENERALLY, USUALLY, SOMETIMES); TIME (minutes past). LESSON TWELVE: The Present Tense of Regular and Irregular Verbs (continued); WHEN; Adverbs of Frequency (ALWAYS and NEVER); The days of the week; TIME (minutes to). LESSON THIRTEEN: Vocabulary Development.

BASIC LEVEL II

UNIT I - BOOK TWO - English for Cadets of AMAN. Language study for learning structures and vocabulary of approximately two thousand five hundred words. Lesson Fifteen: GOING TO (future) - CAN (interrogative, negative and negative contracted forms). Lesson Sixteen: CAN (interrogative, negative and contracted forms) - Introduction of Future Tense (affirmative, interrogative, negative, affirmative and negative contracted forms) - MUST (affirmative form). Lesson Seventeen: Past Tense of the Verb TO BE (affirmative, interrogative, negative, and negative contracted forms). Lesson Eighteen: Past Tense of Regular Verbs (affirmative, interrogative, negative and negative contracted forms with DID). Lesson Nineteen: Past tense of Irregular Verbs (affirmative and interrogative forms). Lesson Twenty: Past tense of the verb TO HAVE - Past Tense of Irregular Verbs (affirmative, interrogative, negative and negative contracted forms). Lesson Twenty-One: THERE WAS AND THERE WERE (affirmative, interrogative, negative and contracted forms) - THERE WILL BE (affirmative, interrogative, negative, and negative contracted forms). Lesson Twenty-Two: The Past Tense of Regular and Irregular Verbs (affirmative and interrogative forms) - COULD - (affirmative, interrogative, negative and negative contracted forms). Lesson Twenty-Three: The Past Tense of Regular and Irregular Verbs (affirmative forms). Lesson Twenty-Four: Would like (I'd like, you'd like ...) - Objective Case of Personal Pronouns. Lesson Twenty-Five: The Conditional Tense (affirmative, interrogative, negative and negative contracted forms) - Possessive Case (Double Possessive). Lesson Twenty-Six: Interrogative - Negative Sentences. Lesson Twenty-Seven: Possessive Pronouns - A FEW - MAY (affirmative, interrogative and negative forms). Lesson Twenty-Eight: SOME, ANY - SOMETHING, NOTHING.

- **PSYCHOLOGY**

UNIT I - PSYCHOLOGY AND ITS HISTORY - The evolution of the concept of Psychology. The extinct Schools of the 20th century. - Consequences of theoretical discussions in the various movements (Schools). The scientific method.

UNIT II - LEARNING - Learning and Pavlov's reflexology. American reflexology-Behaviorism. Associative psychology and Skinner's system. Generalization and Discrimination of stimuli. Classification of reinforcements and Reinforcement schedules. Learning as a perceptual process, according to Gestaltists. Factors that contribute to the emergence of INSIGHT. The principle of pleasure and pain and the law of effect. Piaget's genetic epistemology based on action.

UNIT III - DEVELOPMENTAL PSYCHOLOGY - Objectives of scientific child Psychology and general principles of development. Prenatal development and innate reflexes. Characteristics of childhood, developmental tasks and psychomotricity. Socio-emotional development. Family socialization. Language and cognition development. Adolescence. Social integration. Love and sex. Adult life, middle age and old age.

UNIT IV - DIFFERENTIAL PSYCHOLOGY - Personality: concept and characteristics. Theory of personality. Theory of intelligence. Attempts to evaluate intelligence. Motivation. Decision making. Adjustment. Normal personality and sexual anomalies. Pathological personalities.

UNIT - SOCIAL PSYCHOLOGY - Social dependence and interdependence. Attitudes, concept and formation. Attitude change. Social conformity. Social groups. Social processes. Sociometry. Theory, forms and conditions of leadership. The Military Chief and the Cadet. Attitude change in enlisted soldiers. Combat fatigue. Psychological warfare. Brainwashing.

- **GEOGRAPHY**

UNIT I - FUNDAMENTALS - Strategies, Geography and Geopolitics. Conceptualization. Schools and Trends. Physiographic factors. Area characterization. Geology, orography, hydrography, coastline, climate and vegetation. Information about each factor, classification, influences. Psychosocial factors. Historical and social background, population, public health, cultural and religious situation, work, social welfare and assistance, social morality and public opinion. Information about each factor. Classification. Influences. Political factors. Political structure, legal system, national policy, national security, information about each factor. Classification, influences. Economic factors. Economic structure, agriculture and livestock and fishing. Industrial production, communications, transport, commerce, finance, information about each factor. Classification, influences.

UNIT II - COUNTRIES OF THE WORLD - Central America. Argentina. Uruguay and Paraguay. Andean countries. U.S.A. USSR. Eastern Europe. Western Europe. Africa. China. Japan.

- **MILITARY HISTORY**

UNIT I - HISTORICAL RESEARCH - Historical research. Methodology of historical research. Elaboration of historical research.

UNIT II - WORLD GREAT POWERS - BRITISH COMMONWEALTH. FRANCE. UNITED CITES. GERMANY. JAPAN. USSR.

UNIT III - CRITICAL AREAS OF THE CONTEMPORARY WORLD - CHINA. SOUTH ASIA. SOUTHEAST ASIA. AFRICA. CUBA. MIDDLE EAST.

UNIT IV - LATIN AMERICA - Formation of territory, nationality and politics. Political Evolution. Areas of political friction. Chaco War. Pacific War.

- **LAW**

UNIT I - INTRODUCTORY ELEMENTS TO THE SCIENCE OF LAW AND THE GENERAL THEORY OF THE STATE - Ethical Norm; Law and Morality; norms of behavior and organization; structure of legal norms. Division of Law. Nation and State. Evolution of the State. The State as to form. Law as a stable element of the State order: its concept and classification. Custom and Law: concept and repeal. Law: classification, hierarchy and binding force. Judicial review of laws and constitutional review. The Modern State; Constituent Power and constitutional systems. The importance of sovereignty. Parliamentarism, presidentialism and directorial system.

UNIT II - CONSTITUTIONAL LAW - Historical-legal notions of the Brazilian Constitutions from 1824 to 1967. Constitution of 1967. The territorial division of Brazil - State, Federal District and Territories. Public domain assets. The Tripartition of State Power. Brazil and War. Federal competence and Federal Intervention. Constitutional Principles. Autonomy of Member States and federal intervention. Municipalities, Federal District and Federal Territories. Tax system. The Legislative Power: nature and purpose. Bicameral importance in the Federation and cumulative, exclusive and private competencies. Impeachment. Electoral systems and the proportional system technique. The Legislative Process: the budget

and financial and Budgetary oversight. The Executive Power: eligibility, mandate, duties and competence. The technique of the Electoral College of the President of the Republic. The Public Prosecutor's Office. The Judiciary Power: organization and competence. Nationality. Political rights. Political parties. Rights and individual guarantees: notions of Habeas corpus and Writ of Mandamus. Economic and social order: the family, education and culture. National Security and Armed Forces. Emergency Measures and Cite of Siege. Public Servants and general provisions of the Constitution.

UNIT III - PUBLIC INTERNATIONAL LAW - Public International Law and international society. Historical-legal notions. Formal and material sources. Brief study of treaties. International relations: Head of Cite, Minister of Foreign Affairs, Diplomatic Agents and Consular Agents. UN - composition and functioning. Specialized agencies, particularly the OAS. Security systems and collective self-defense within the scope of the UN and OAS. Land, maritime, floating and air domains. Means of settlement of international disputes. Sanctions.

UNIT IV - MILITARY CRIMINAL LAW - Military Criminal Law. Criminal imputability and criminal responsibility. Criminal offenses - Degrees of culpability. Military Crime. "Iter criminis" and impossible crime. Ignorance or error of criminal law. Coercion and hierarchical obedience. Criminal exemptions. Characteristics of the legitimacy of punishment, its application and conversion. Principal penalties. Unworthiness for officer status and incompatibility with officer status and loss of rank and commission. Aggravating and mitigating circumstances. Extinction of punishability. Statute of limitations and rehabilitation. Conditional release and suspended sentence and security measures. Crimes against the external security of the country. Crimes against military authority and discipline. Crimes against Military Service and military duty. Crimes against military administration. Crimes against the person and against honor. Sexual crimes and crimes against property. Crimes in time of war: treason, cowardice etc.

UNIT V - MILITARY CRIMINAL JUDICIAL LAW - Organization, jurisdiction and functioning of the Military Justice. IPM (*Military Police Investigation*), inquiry and flagrante delicto. Ordinary procedure: indictment, summary of guilt, trial, sentence. Special procedures, nullities and appeals in general.

UNIT VI - ADMINISTRATIVE LAW - Administrative Law. Concept. Brief historical notes. Object and division. Administrative act. Concept and general classification. Judicial Control. Public Administration Bodies in Brazil. Federal Public Administration: Leadership, auxiliary bodies. Public administration of the Cites, Federal District, Territories and Municipalities. Bidding for purchases, works, services and disposals. Public Service Concession, Authorization and Permission. Administrative Contract and unilateral administrative act. Cite intervention in the economic domain and private property. Police Power: Concept. Statute of Civil Public Servants of the Union. Main rights and duties. Penalties. Administrative procedure. Statutory nature of the function.

UNIT VII - CIVIL LAW - Civil Law. Brief history of the Brazilian Civil Code. Person. Division. Natural Person. Civil Status. Domicile. Capacity. Legal Person. Nature. Division. Constitution. Domicile. Liability. Public Records. Assets. Concept. Classification. Family asset. Birth of rights. Legal relationship. Legal facts and acts. Unlawful act. Defense and extinction of rights. Action. Waiver and Prescription. Family. Constitution. Marriage. Qualification. Essential formalities. Celebration of marriage. Religious marriage with civil effects. Legal effects of marriage. Property regime. Matrimonial impediments. Kinship. Legitimate and illegitimate filiation. Adoption. Dissolution of marital society. Void and voidable marriage. Effects of dissolution of marital society. Divorce. Concept. Types. Cause. Legal effects. Possession. General notions. Distinction between possession and ownership. Classification of possession. Vices of possession. Acquisition and protection of possession. Property. Concept. Acquisition. Claim. Condominium. Literary, scientific and artistic property. Real rights of guarantee. Concept. Types: mortgage, pledge, antichresis. Fiduciary transfer of ownership. Contract. Concept. Forms. Classification - types - validity. Void and voidable contracts. Contract of purchase and sale of real ecite. Earnest money. Eviction. Hidden defects. Main aspects of real ecite lease contracts. Inheritance Law. Fundamental aspects. Object and its relations. Active subject. Inheritance Law. Passive subject. Complex of legal relations**.**

UNIT VIII - COMMERCIAL LAW - Commerce: concept, types, essential elements. Commercial acts, Merchants and Auxiliary agents of commerce. Commercial contracts. Commercial companies. Credit instruments.

UNIT IX - LABOR LAW - Labor Law. Concept. Individual contract. Employee and Employer. Salary. Collective bargaining agreement. Main labor obligations.

- **ENGLISH**

INTERMEDIATE LEVEL I

UNIT I - BOOK ONE - ENGLISH FOR CADETS OF AMAN - Lesson 1 - Introduction of the Present Tense of the verb TO BE (This is, it is) (Affirmative, interrogative and contracted forms); Commands (Imperative); Numbers (1 to 10); Interrogative Pronoun WHAT; Demonstrative Pronoun THIS; The Definite Article; The Indefinite Article A /AN. Lesson 2 - The Present Tense of the verb TO BE (I AM, YOU ARE, HE IS) - affirmative, interrogative, contracted forms Demonstrative Pronoun THAT; Interrogative Pronoun WHO; Ordinal Numbers (1st, 2nd). Lesson 3 - Possessive Adjectives (MY, YOUR, OUR); Possessive Case; Ordinal Number (3rd). Lesson 4 - The Present Tense of the verb TO BE (WE ARE, YOU ARE, THEY ARE) - affirmative, interrogative and contracted forms; Interrogative Adjective YOUR (pl) Here, There and Over There. Lesson 5 - The Present Tense of the verb TO BE (negative and negative contracted forms) Possessive Adjectives - HIS, HER, THEIR; Personal Pronoun SHE; Interrogative Adjective WHOSE. Lesson 6 - THERE IS and THE ARE (affirmative and interrogative forms); Colors; Interrogative Pronoun: HOW, MANY, WHICH; Ordinal Numbers (4th, 5th, 6th and 7th). Lesson 7 - THERE IS AND THERE ARE (NEGATIVE FORM); Demonstrative Pronouns THESE and THOSE; SOME and NO. Lesson 8 - Introduction of the Present Continuous Tense (affirmative, interrogative contracted and negative contracted forms); TIME (hours) Number 11. Lesson 9 - HAVE (affirmative form; interrogative and negative forms with do); DATE; Ordinal Number 8th; Number 12. Lesson 10 - The Present of the verb TO HAVE (HAS; interrogative, negative and negative contracted forms with DO and DOES) TIME (minutes after); Number 13 to 20. Lesson 11 - The Present Tense of Regular and Irregular Verbs (affirmative, interrogative, negative and negative contracted forms with DO); Ordinal Number 9th; HOW MUCH; Colors; Numbers 30 and 40. Lesson 12 - The Present Tense of Regular and Irregular Verbs (affirmative, interrogative, negative and negative contracted forms with DO and DOES) Adverbs of Frequency (GENERALLY, USUALLY, SOMETIMES); TIME (minutes past). Lesson 13 - The Present Tense of Regular verbs (continued); WHEN; Adverbs of Frequency (ALWAYS and NEVER); the days of the week; TIME (minutes to). Lesson 14 - Vocabulary Development. Lesson 15 - GOING TO (future) CAN (interrogative, negative and negative contracted forms).

UNIT II - BOOK TWO - ENGLISH FOR CADETS OF AMAN - Lesson 16 - CAN (interrogative, negative or contracted forms); Introduction of Future Tense (affirmative, interrogative, negative, affirmative and negative contracted forms); MUST (affirmative form) Lesson 17 - Past Tense of the verb TO BE (affirmative, negative and negative contracted forms). Lesson 18 - Past Tense of Regular Verbs (affirmative negative and negative contracted forms with DID). Lesson 19 - Past Tense of Irregular (affirmative and interrogative forms). Lesson 20 - Past Tense of Irregular Verbs (affirmative, interrogative, negative and negative contracted forms). Lesson 21 - THERE WAS and THERE WERE (affirmative, interrogative and negative forms). THERE WILL BE (affirmative, interrogative, negative and negative contracted forms). Lesson 22 - The Past Tense of Regular and Irregular Verbs (affirmative and interrogative forms); COULD (affirmative, negative, interrogative and negative contracted forms). Lesson 23 - The Past Tense of Regular and Irregular Verbs (affirmative form). Lesson 24 - Would Like (I'd like, you'd like ...); Objective Case of Personal Pronouns. Lesson 25 - The Conditional Tense (affirmative. interrogative, negative and negative contracted forms); Possessive Case (Double Possessive). Lesson 26 - Interrogative Negative Sentences. Lesson 27 - Possessive Pronoun - A FEW - MAY (affirmative, interrogative and negative forms). Lesson 28 - SOME, ANY, SOMETHING, ANYTHING, NOTHING. Lesson 29 - MILITARY TERMINOLOGY; SUPLEMENTARY INFORMATION. Lesson 30 - MILITARY MANUAL: AN EXAMPLE.

INTERMEDIATE LEVEL II

UNIT I - BUS OPERATION - Expressions: Get on, and Get off. Present and Past Progressive forms. Simple Future. May - Might - Expect - Plan to - Hope to. Dialogue on the bus. Telephone dialogue. Text about bus operation in the city.

UNIT II - DAILY ROUTINE - Expression: by (transportation) and Shall. Adverbs of frequency. Use of STILL, ALREADY, YET. Various dialogues. Text about daily routine.

UNIT III - BUYING CLOTHES - Idiomatic expressions. Some - Any - No. No x Not. Comparative of equality. Dialogue about a shopping situation in a clothing store.

UNIT IV - GEOGRAPHY OF THE U.S.A. - Modal Verbs: Can, May, Would, Should and Must. Dialogue about means of transportation in the U.S.A. TEXT: Geography of the U.S.A.

UNIT V - TELEPHONE USE - Interrogatives. Review: comparative, adverbs of frequency and verb tenses. Dialogues in various situations. Text about telephone use.
UNIT VI - DOCTOR'S VISIT - Present Perfect. Should and Ought to. Irregular Verbs. Dialogues in various situations. Text about a doctor's visit.
UNIT VII - NEWSPAPERS - Idiomatic expressions. Past of Modals. Irregular Verbs. Various dialogues in different situations. Text about newspapers.
UNIT VIII - TELEVISION - Idiomatic expressions. Review: interrogatives and modals. Dialogues in various situations. Texts about television. Text about the art of "do it yourself".
UNIT IX - HOLIDAYS - Expression: Look forward to. Use of TOO, EITHER and BUT. Countable and uncountable nouns. Indefinite and quantity. Placement of direct and indirect objects. Dialogues in various situations. Text about the celebration of different holidays.
UNIT X - POST OFFICE - Review: direct and indirect object; - quantity indefinites; - verb tenses and - modals. Dialogues in various situations. Text about going to the movies. Text about the Post Office. Physiographic, Political, Psychosocial and Economic Conditioning Factors. Government planning and action. Perspectives.

GROUP I

PHYSICAL EDUCATION

UNIT I - SWIMMING - swim a minimum distance of 100 m in 3 minutes, preferably using the freestyle ("Crawl") stroke.
UNIT II - MILITARY PHYSICAL TRAINING: high jump, minimum height 1.20 m; 100 m run, maximum time of 14.0 sec; throw a 500 g grenade to a minimum distance of 30 m; 3000 m run in a maximum time of 13 minutes; complete the Military Pentathlon Track course, without time limit.

GROUP II

DRILL
UNIT I - UNARMED INSTRUCTION: identify the different positions and commands; execute the movements corresponding to each position; execute movements for transitioning from one position to another and evolutions.
UNIT II - ARMED INSTRUCTION: identify the different positions and commands; execute the movements corresponding to each position; execute movements for transitioning from one position to another and evolutions with weapon.

MILITARY HYGIENE AND FIRST AID
UNIT I - FIRST AID: use the individual first aid kit; perform artificial respiration; transport wounded using different methods; apply bandages and dressings; perform immobilizations using splints and slings; take measures to stop bleeding.
UNIT II - MILITARY HYGIENE: purify water in field operations; carry out individual hygiene measures in field conditions; differentiate various diseases through their symptoms.

MANEUVERABILITY
UNIT I - INDIVIDUAL INSTRUCTION: execute the exercises of marching, lying down, rolling, crawling, creeping, standing up, kneeling, march-march, and change of front; execute and prepare for the rush and the rush itself.
UNIT II - COMBAT GROUP (GC): state the functions of a combat group; enumerate the duties of each element of the combat group; cite the formations that a combat group may assume; perform movements and changes of formation.

GENERAL INSTRUCTION - (UD I R1 (RISG and NGA/CC - *Administrative and Command General Standards*)**:** define the mission and organization of the Brazilian Army (M Ex), as well as the constitution of the Land Forces; cite the division of the National Territory into Armies and Military Regions (RM); distinguish Military Establishments and Military Offices; distinguish the concepts of command and administration in troop units; apply orders contained in NGA/CC; define Internal Bulletin; cite the components of the Internal Bulletin; cite the types of formations that exist, characterizing the case of AMAN; differentiate duty roster and roster

service; enumerate the duties of the Duty Sergeant; list the duties of the Duty Corporal and sentries; cite the mission and composition of the Company (SU) Guard; record the documentation of the Duty Sergeant; cite the purpose and composition of the Barracks Guard; enumerate the duties of the Guard Soldier, Guard Reinforcement, Barracks Guard Corporal, and Sentry; cite the duties of the Cadet Patrol; define the extraordinary situations of the Troops.
UNIT II - R2 (CONT): define the signs of respect; establish the hierarchical correspondence among the Armed Forces; list the essential elements of the individual salute; perform the individual salute; cite the correct procedure of the military in various situations, particularly that of the Cadet; characterize precedence among military personnel; cite cases in which the troop renders salutes, including the Barracks Guard and Sentries; cite the authorities entitled to bugle or trumpet calls; distinguish the insignia of authorities and the rules governing their use; define military honors; cite the military honors and the cases in which they are rendered; describe the formalities for the hoisting and lowering of the National Flag and the ceremony for its veneration.
UNIT III - R4 (RDE - *Disciplinary Regulations of the Army***)**: define disciplinary infraction; differentiate disciplinary infraction from military crime; enumerate the regulatory prescriptions that limit the scope of disciplinary action; determine the nature of causes and circumstances that influence the judgment of offenders; classify a disciplinary infraction using the RDE and NAPD (*Disciplinary Action Procedures Standards*)/AMAN; classify disciplinary infractions; cite the causes and circumstances that influence the judgment of offenders; classify the conduct of military personnel.
UNIT IV - (RUE - *Army Uniform Regulations***)**: differentiate among the various uniforms of the Army, particularly those of the cadet.

FIELD TOPOGRAPHY
UNIT I - TOPOGRAPHIC MAPS: define topographic maps; classify topographic maps militarily; differentiate a geographic frame from a grid frame; identify at least fifteen cartographic conventions;
UNIT II - DISTANCE MEASUREMENTS; scales - define scales; determine the scale of a map; establish the characteristics of different types of scale; construct a graphic scale; use instruments for measuring distances; solve problems involving map scales.
UNIT III - DIRECTION AND AZIMUTH: define degree and mil; use the mil formula in problem solving; define the three basic reference directions; differentiate the angles formed by the basic directions; define azimuth and bearing, establishing differences; measure azimuth on the map; plot azimuth on the map.
UNIT IV - ORIENTATION AND ANGLE MEASUREMENT: use the compass to measure horizontal and vertical angles; use the compass to measure horizontal angles, transferring them to the map and vice versa; measure horizontal and vertical angles using binoculars; orient oneself, with or without a compass, by day or night; perform a night orientation course.
UNIT V - POINT DESIGNATION AND LOCATION ON THE MAP: designate and locate points on the map using geographic coordinates, rectangular coordinates and polar coordinates; locate and designate points on the map using a protractor ruler, code grid or code line; use tracing paper; designate a point on the map by reference to another point.
UNIT VI - RELIEF: represent terrain relief; determine the elevation of a point; shade a section of the map; sketch an area on the map.
UNIT VII - ORIENTATION AND HORIZON ROTATION: identify map representations with the corresponding points on the terrain; orient oneself on the terrain with or without a compass; determine the NORTH direction without a compass using expedient methods; determine the station point; perform horizon rotation.

TERRAIN ORGANIZATION
UNIT I - CAMOUFLAGE: define camouflage; perform individual camouflage of vehicles and firing positions; correctly employ equipment, observing general rules for executing camouflage.
UNIT II - FIELD FORTIFICATION: define obstacles; classify obstacles; correctly use tools and materials; construct shelters and protective parapets; construct wire obstacles; properly use tools.
UNIT III - EXPLOSIVES, DEMOLITIONS, MINES AND TRAPS: define, classify and characterize military explosives; identify and handle demolition materials; calculate charges; apply safety standards for the use of explosives; understand the great importance of these rules in all situations; distinguish anti-personnel (AP) and anti-tank (AT) mines; identify types of mines; install, neutralize and remove traps; handle and identify firing devices.

MATERIAL MAINTENANCE
UNIT I - WEAPON MAINTENANCE: identify the different Maintenance Echelons; cite the phases of 1st Echelon maintenance; identify the importance of material maintenance; identify the materials used in weapon maintenance; perform weapon maintenance.
UNIT II - EQUIPMENT MAINTENANCE: identify the materials used in equipment maintenance; identify the importance of equipment maintenance; perform equipment maintenance.

RIDING
UNIT I - HORSE TACKING: identify saddling, restraint and cleaning equipment; bridle, saddle and unsaddle the horse; handle tack and equipment.
UNIT II - GAINING CONFIDENCE: mount and dismount; lead the horse in hand; mount and dismount by jumping and on command; mount using leg balance; control the horse at walk and trot; correct the horse's position; exercises for controlling the horse at walk and trot; perform relaxation exercises.
UNIT III - SADDLE PLACEMENT - perform riding with a flexible, firm and stable seat, with complete freedom of movement; perform work at walk and trot with full relaxation of joints; trot with and without stirrups, with a flexible seat.
UNIT IV - RIDING AIDS: control the horse at the walk, trot, and canter, in the riding arena and outdoors; execute halts, changes of gait and direction; control the horse over any terrain; overcome natural obstacles encountered; regulate gait.
UNIT V - APPLICATION OF RIDING AIDS: execute a course outdoors, over varied terrain, at the walk, trot, and canter, overcoming natural obstacles.

GROUP III

ARMAMENT

UNIT I - 7.62 mm FZ M964 (FAL) AND 7.62 mm FZ MTR M964 (FAP): cite the nomenclature, characteristics, accessories, and spare parts; perform first- and second-echelon disassembly, describing the procedures; identify the parts and components of the weapon; describe the operating cycle; identify and clear firing malfunctions.
UNIT II - 9 mm PST M975 (BERETTA): cite the nomenclature, characteristics, accessories and spare parts; identify the parts and components of the weapon; describe the phases of operation; perform 1st echelon disassembly and assembly.
UNIT III - HAND GRENADES: cite the characteristics; identify the parts of the grenade; explain the functioning; prime the grenades.
UNIT IV - RIFLE GRENADES: cite the characteristics; identify the parts and components; explain the functioning.

COMBAT AND FIELD SERVICE
UNIT I - INDIVIDUAL TACTICAL INSTRUCTION: recognize on the terrain the various ground features, identifying them by their correct nomenclature; explain altimetry; explain planimetry; cite the classification of terrain in terms of visibility, fields of fire, movement, trafficability, vegetation, and relative elevations of the area; explain command and control; cite the classification of elevations according to mass, shape and height; identify terrain features by their military value; refer to terrain features using military language; distinguish cover and shelter; cite the purposes of cover and shelter; cite the rules for occupying cover; cite the conditions that shelters must meet; estimate and classify distances militarily; cite the causes that influence distance estimation; designate targets by various methods; analyze terrain use for observation by day and night; transmit the result of an observation; cite the requirements for a firing position; construct a firing position; cite the methods of movement; execute a rush in accordance with regulations; cite the rules for movement under infantry and artillery fire; describe night movement techniques; describe conduct for passive and active defense against enemy aircraft and armored vehicles; cite the mission and duties of a lookout; cite the characteristics of the lookout position; perform lookout duties in an exercise; cite the missions, duties and conduct of the scout; cite techniques for approaching terrain features; define messenger;

cite the classification of messengers; cite the equipment required for a messenger to accomplish the mission; cite general principles used in message transmission; define liaison man; cite the qualities and knowledge required of a liaison man; define ambush rifleman; describe the conduct of the ambush rifleman in patrols and reconnaissance missions.
UNIT II - **PATROLS**: define patrols; cite the types of patrols; list the formations adopted by a patrol; describe the actions of the soldier in the execution of a patrol; apply the knowledge acquired in an exercise.
UNIT III - **COMBAT COURSE**: overcome log and rope obstacles, completing a course with hand grenade throwing.
UNIT IV - **CROSSING WATER COURSES**: perform the crossing of a water obstacle using uniform and equipment and improvised means available on site; cite the methods of crossing.
UNIT V - **MARCHES AND HALTS:** cite the situations in which troops march on foot; cite the types of foot march; cite the factors that contribute to the success of marches; cite the missions of the advance party; cite the speeds of foot march; cite the types of halts; distinguish each type of halt; cite the precautions before, during and after marches; analyze a halt area; conduct a foot march of 12, 16, and 24 km, in accordance with the provisions of C 21-18; establish a model camp.

FIRING
UNIT I - **7.62 mm FZ M964** - **FAL** - **TIB - BASIC FIRING TRAINING**: describe the fundamental elements of firing; perform IPT (*Firing Practice Instruction*), correctly executing all exercises; perform TIP (*Practical Firing Training*), achieving the qualification "QUALIFIED" in all exercises; understand and apply safety and range procedures; correctly fill out firing score sheets; clear firing malfunctions; apply night firing techniques; perform first-echelon maintenance before and after firing; achieve, in the firing exercises performed, the approval standards required by IGTAEx-82.
UNIT II - **9 mm PST M975 (BERETTA) BASIC FIRING TRAINING (TIB)**: describe the fundamental elements of firing; perform IPT, correctly executing all exercises; cite the safety and range procedures; correctly fill out firing score sheets; identify and safely clear firing malfunctions; apply the technique taught in the execution of firing; perform first-echelon maintenance before and after firing; achieve, in the firing exercises performed, the approval standards required by IGTAEx-82.
UNIT III - **RIFLE GRENADES**: perform IPT, correctly executing the exercises; execute rifle grenade firing in accordance with the fundamentals and safety regulations; correctly fill out firing score sheets; perform maintenance before and after firing.
UNIT IV - **HAND GRENADES**: apply the fundamentals for throwing; perform an exercise course with inert grenades, achieving the required approval standards; correctly prime grenades; carry out throwing, applying the fundamentals and safety regulations.

COMMUNICATIONS
UNIT I - **INTRODUCTION TO COMMUNICATIONS**: Conclude on the necessity and responsibility for establishing communications links at different echelons; cite the communication means employed at lower echelons, their advantages and disadvantages.
UNIT II - **MESSAGE**: define, classify and draft messages.

CHEMICAL, BIOLOGICAL AND NUCLEAR WARFARE
UNIT I - **CHEMICAL WARFARE**: define Chemical Warfare; classify and characterize the standard agents of the groups; cite the types of protection; cite the first aid measures against chemical agents; describe the components of a gas mask; put on and remove the mask in a contaminated atmosphere - exercise in a gas chamber.

GROUP I

PHYSICAL EDUCATION
UNIT I - **SWIMMING**: swim a minimum distance of 150 m in 5 minutes, preferably using the freestyle (Crawl) stroke;

UNIT II - **MILITARY PHYSICAL TRAINING**: climb a rope to a minimum height of 4 m without using the feet; carry a partner of the same weight over a distance of 100 m in a maximum time of 25 seconds;

long jump of at least 4 m; run 4000 m in a maximum time of 17 minutes and 30 seconds; complete the Military Pentathlon track course, without time limit.

GROUP II

SPECIAL INSTRUCTION
UNIT I - SMALL UNITS IN JUNGLE OPERATIONS: perform the basic individual techniques of small units in jungle operations.

DRILL
UNIT I - FOOT DRILL (WITH WEAPON): identify the different positions and commands; perform the movements corresponding to each position; perform movements for transitioning from one position to another; conduct troop command training.
UNIT II - MOTORIZED DRILL: perform movements for mounting and dismounting vehicles; identify the different formations and commands; execute the movements corresponding to each command; perform transitions from one formation to another and evolutions; conduct troop command training.

GROUP III

PORTABLE WEAPONS FIRING
UNIT I - 7.62 mm FZ M 964 (FAL): cite the fundamental elements of firing; achieve, in the execution of firing exercises, the approval standards required in IG 20-03; apply night firing techniques; apply the technique for obtaining the combat sight alignment.
UNIT II - 9 mm PST BERETTA: describe the fundamental elements of firing; obtain, in the execution of pencil firing, the qualification "QUALIFIED"; achieve, in the execution of the prescribed firing exercises, the approval standards required in IG 20-03.

GENERAL INSTRUCTION
UNIT I - DISCIPLINARY REGULATIONS OF THE ARMY (RDE): define the general principles of hierarchy and discipline; determine the scope of action and authority to apply punishments; analyze the circumstances that mitigate or aggravate misconduct; determine the grading, definition and execution of disciplinary punishments; identify punishment records; analyze the execution of punishment; classify military behavior; cite appeals and rewards; identify the conditions and authorities for cancellation of punishments.

ORGANIC MAINTENANCE OF MOTOR VEHICLES
UNIT I - THE MOTOR VEHICLE: define motor vehicle; identify the components of motor vehicles; understand the general organization of motor vehicles; classify and identify military motor vehicles; acquire basic knowledge about operational vehicles of its Arm or Service and perform user maintenance; correctly use first-echelon tools when performing user maintenance.

BALLISTICS
UNIT I - TRAJECTORY ELEMENTS: identify the elements of the trajectory; compare the elements with those found in firing manuals and regulations.
UNIT II - FORCES ACTING ON PROJECTILES AND THEIR MOTION: identify the forces acting on the projectile; identify the effects of projectile motion on the firing phenomenon; compare the stability of projectiles and bombs in relation to the forces acting on them.
UNIT III - DETERMINATION OF TRAJECTORY ELEMENTS AND THE SIGHTING PROBLEM: solve practical problems related to the phenomenon of complementary sight correction, relating them to accuracy; relate firing safety to specific elements of the trajectory; verify, through calculation, the possibility of ricochet occurrence.
UNIT IV - SHOT DISPERSION: identify the occurrence of shot dispersion; calculate ammunition requirements to destroy a given target using shot dispersion formulas; solve dispersion problems with a view to firing accuracy.

GROUP IV

COMBAT AND FIELD SERVICE

UNIT I - ABBREVIATIONS, SYMBOLS AND SKETCHES: identify and use the most common abbreviations and symbols in military documents; interpret and produce simple sketches used for transmitting orders and reports at lower echelons; appreciate the use of military abbreviations and symbols as a means of saving time and resources; seek objectivity and clarity in the transmission of orders and information through graphical representation.

UNIT II - RECONNAISSANCE AND COMBAT PATROLS: Understand the principles governing the employment of small units (patrols) in various missions and forms of combat; execute the various activities pertaining to members of a small unit; command small units (patrols) in different combat situations; recognize the need to apply and comply with the principles governing the employment of small units (patrols); practice command of small units with careful planning and energetic execution; value the efficiency of the unit under command; understand the importance of patrol training in the development of the infantry combat soldier; apply the principles governing the conduct of an infantry platoon in various situations within a patrol base; value the importance of infantry combat training in night operations at small-unit level.

UNIT III - RIVERINE OPERATIONS: apply the principles governing the employment of small echelons in riverine operations; command patrols and execute the missions and activities of their members in riverine operations; identify the effects of plunging and grazing fire and the difference between them when used against surface targets on water; value the need for adaptation of the combatant to the environment and to the type of operations; seek the professional effectiveness of the unit under command; recognize the value of support from elements of other Arms in riverine combat operations, particularly engineering elements.

UNIT IV - MARCH TO COMBAT: apply the principles governing the employment of rifle company (Cia Fzo) elements, up to squad level (GC/Sec), in the march to combat; command rifle company elements up to squad level (GC/Sec) and carry out the duties pertaining to the soldier, corporal, and sergeant in the various situations of a march to combat; recognize the need to apply and obey the principles of employment of small units in a march to combat; seek the operational efficiency of the unit under command.

UNIT V - ATTACK: apply the principles governing the employment of rifle company (Cia Fzo) elements, up to squad level (GC/Sec), in the attack; command rifle company (Cia Fzo) elements up to squad level (GC/Sec) and carry out the duties pertaining to the soldier, Corporal, and Sergeant in the preparations for and execution of an attack; recognize the need to apply and obey the principles of employment of small units in an attack; seek the operational efficiency of the unit under command; recognize the importance of training the infantry combatant in night operations.

UNIT VI - DEFENSIVE COMBAT: apply the principles governing the employment of rifle company (Cia Fzo) elements, up to squad level (GC/Sec), in area defense; command rifle company (Cia Fzo) elements up to squad level (GC/Sec) and carry out the duties pertaining to the soldier, corporal, and sergeant in defensive operations; recognize the need to apply and obey the principles governing the employment of small units in defensive operations; seek the operational efficiency of the unit under command; recognize the importance of training the infantry combatant in night operations.

UNIT VII - MANEUVER: apply the knowledge acquired in Combat and Field Service.

MANEUVERABILITY

UNIT I - ORGANIZATION OF THE RIFLE COMPANY AND RIFLE PLATOON (Cia Fzo and Pel Fzo): identify the companies with subunits (SU) that compose the battalion; enumerate the elements that make up the rifle company (Cia Fzo) and identify their general missions; identify the characteristics, capabilities, and limitations of the rifle company (Cia Fzo); describe the rifle platoon (Pel Fzo); understand that the organization of any element, at any level, is a function of the tactical employment established by the current doctrine.

UNIT II - COMBAT GROUP (GC): identify the personnel and material organization of the combat group (GC); understand and apply the principles of employment and evolutions of the combat group (GC); perform the duties of its members; command combat group evolutions in combat situations; recognize the need for maneuverability in combat; value maneuverability as a fundamental element for developing behaviors and reflexes essential to combat conditioning.

UNIT III - MACHINE GUN SQUAD AND SECTION TRAINING (MTR): identify the personnel and material organization of the machine gun squad (Pç Mtr) and machine gun section (Sec Mtr) belonging to the support platoon of a rifle company (Cia Fzo); identify the principles of employment and the evolutions of the machine gun squad and section in combat operations; enumerate and perform the duties of the personnel of the machine gun squad and section in combat formations; command the evolutions of the machine gun squad and section in combat situations.

UNIT IV - 57 mm RECOILLESS RIFLE SQUAD AND SECTION TRAINING: identify the principles governing the organization, in personnel and material, of the Sec Can 57 mm SR (57 mm recoilless rifle section); identify the basic principles and fundamentals of maneuverability of the Pç (squad) and Sec Can 57 mm SR (57 mm recoilless rifle squad and section); improve the habits required for the execution of fire by the Pç and Sec Can 57 mm SR, avoiding waste of time and ammunition; value the team spirit within the Pç and Sec Can 57 mm SR crew, enabling its personnel to occupy firing positions and change them with speed and precision; identify skills and automatisms that facilitate the execution of preparatory combat exercises at Pç and Sec level; develop, in particular, flexibility, decision-making spirit, cohesion, initiative, and self-confidence, essential to combat requirements.

UNIT V - 60 mm MORTAR SQUAD AND 81 mm MORTAR SQUAD AND SECTION TRAINING: frame the Pç Mrt 60 (60 mm mortar squad) and the Pç and Sec Mrt 81 (81 mm mortar squad and section) within the QO (Table of Organization) of the Pel Fzo (rifle platoon) and Cia Fzo (rifle company); identify the organization of the Mrt 60 and 81 elements, according to personnel strength, functions, duties, and equipment established in the QO of the Pel Fzo and Cia Fzo; command the Pç Mrt 60 and the Pç and Sec Mrt 81 in different tactical situations in the field during movement; command the Pç Mrt 60 and the Pç and Sec Mrt 81 in occupying firing positions and during fire missions.

UNIT VI - ARMORED COMBAT GROUP AND ARMORED PERSONNEL CARRIER (CBTP): identify the components of the armored personnel carrier; identify first-echelon maintenance operations; execute the procedures for directing and controlling the CBTP; identify the principles governing the personnel and material organization of the GC Bld (armored combat group); identify the characteristics and employment of the GC Bld; identify the functions, duties, and equipment of the elements belonging to the GC Bld; perform activities related to the maneuverability of the GC Bld, carrying out its various functions; distinguish the conduct of the GC Bld when embarking, embarked, and disembarking from the CBTP; identify the basic principles and fundamentals governing evolutions, observation, control, and movement of the GC Bld under enemy sight and fire; identify the principles governing the employment of fire in defensive and offensive operations; command the GC Bld in maneuver operations.

GROUP I

MILITARY PHYSICAL TRAINING I (UTILITY/SPORT)

UNIT I - SWIMMING - Platform Dive; Utility Swimming Lane; Underwater Swimming - Perform the platform dive under the conditions established by the Internal Standards for Educational Assessment (NIAE); Apply obstacle crossing techniques; Execute the utility swimming course in accordance with the conditions established by the Internal Standards for Educational Assessment (NIAE). Cover a distance of 7 meters underwater under the conditions established by the NIAE. Demonstrate the ability to act firmly and fearlessly in the platform dive (COURAGE). Withstand fatigue resulting from utility swimming training while maintaining efficiency (ENDURANCE).

UNIT II - MILITARY PENTATHLON COURSE (PPM): a. Perform basic gymnastics exercises; b. Perform abdominal exercises under the conditions established by the NIAE; c. Demonstrate willingness to improve physical capability (DEDICATION); d. Endure fatigue resulting from neuromuscular training (ENDURANCE). - Log Gymnastics: a. Perform log gymnastics exercises.

UNIT III - SPORTS - TEAM GAMES: a. Identifies the procedures for the execution of team games. b. Participate in sessions of giant football, military ball, and giant basketball: contributing to the performance of the team (COOPERATION) / promoting unity among peers (CAMARADERIE) / establishing a cordial environment.

MILITARY PHYSICAL TRAINING II (NEUROMUSCULAR)

UNIT I - NEUROMUSCULAR AND COMPLEMENTARY TRAINING 1. Basic Gymnastics -a. Perform basic gymnastics exercises. b. Perform abdominal exercises under the conditions established by the NIAE. c. Demonstrate willingness to improve physical capability (DEDICATION). d. Endure fatigue resulting from neuromuscular training (ENDURANCE). 2. Circuit Training- a. Perform exercises on the Circuit Training Track (PTC). b. Perform passage through the PTC. c. Demonstrate willingness to improve physical capability (DEDICATION). d. Endure fatigue resulting from neuromuscular training

(ENDURANCE). e. Perform bar flexion exercises under the conditions established by the NIAE. 3. Rope Course - a. Apply obstacle crossing techniques. b. Cross the course without fear, using obstacle crossing techniques (COURAGE). c. Demonstrate willingness to improve physical capability (DEDICATION). d. Endure fatigue resulting from neuromuscular training (ENDURANCE).

MILITARY PHYSICAL TRAINING III (CARDIOPULMONARY)

UNIT I - CARDIOPULMONARY TRAINING - Uniformed Cross-Country Run - Perform control of Exercise Heart Rate (EHR) and Recovery Heart Rate (RHR); Perform warm-up and cool-down phases; and Perform a 4000 m uniformed cross-country run under the conditions established by the Internal Standards for Learning Assessment (NIAE). Demonstrate willingness to improve running technique (DEDICATION). Endure fatigue resulting from running training (ENDURANCE).

GROUP II

TACTICAL EMPLOYMENT;

UNIT I - TROOP ELEMENTS - Motorized and Armored Rifle Company - Describe the organization of the BI Mtz (Motorized Infantry Battalion) and the BIB (Armored Infantry Battalion); Describe the characteristics of the Motorized Rifle Company (Cia Fzo Mtz) and BIB; Describe the capabilities and limitations of the Motorized Rifle Company (Cia Fzo Mtz) and armored units (Bld); and Describe the subordinate elements and characteristics of the Rifle Platoons (Pel Fzo) and Support Platoons (Pel Ap). Motorized Rifle Platoon - a. The Combat Group (GC): Describe the personnel and material organization; Describe the functions and duties of the members of the GC; Identify the activities carried out by the GC regarding observation and control; Identify GC movement and progression techniques; Issue commands to the GC during movement under enemy sight and fire; Issue commands to the GC during movement and halts; Issue commands to the GC for changes of front and formation; and Perform GC maneuver operations. b. Combat Group Fire - Perform GC firing in attack and defense; Perform fire distribution against targets in width, depth, and during the assault; Act firmly and fearlessly in difficult and dangerous situations, in accordance with safety regulations (COURAGE) and control one's own reactions in order to continue acting appropriately in different situations (EMOTIONAL BALANCE). c. The Support Group - Describe the organization of personnel and material; Describe the functions and duties of the components of the Pç; Describe the phases of maneuverability; Select the appropriate formations according to the situations presented for the Motorized Rifle Platoon (Pel Fzo Mtz); Execute the maneuver of the Guns both individually and within the Pel Fzo Mtz; Cite the desirable conditions for selecting a firing position; Issue commands during the maneuver of the Guns; Command the Guns in different tactical situations in the field and describe the resupply of ammunition for the guns. d. the Pel Fzo Mtz - Describe the organization in personnel and material of a Pel Fzo Mtz; Describe the functions and duties of the components of the Pel Fzo Mtz; Describe the employment of the equipment of a Pel Fzo Mtz; Describe the formations adopted by the Rifle Platoon (Pel Fzo); Identify the platoon progression techniques; Identify the commands for the execution of fire; and Describe the conduct of the Rifle Platoon (Pel Fzo) during motorized movements, changes of formation, front and direction, movements under enemy sight and fire (Ini), defense against aviation, armored vehicles (CC), and NBC agents (QBN), and during fire execution. e. Maneuverability - Issue commands to the Motorized Rifle Platoon (Pel Fzo Mtz) during movements under enemy sight and fire; Issue commands to the Pel Fzo Mtz during movements and halts; Issue commands to the Motorized Rifle Platoon (Pel Fzo Mtz) for changes of front and formation; Execute the maneuverability activities of a Motorized Rifle Platoon (Pel Fzo Mtz), highlighting the platoon's movements under enemy sight and fire and the movements for changes of front and formation; and Command the Motorized Rifle Platoon (Pel Fzo Mtz) and its elements in maneuver operations. The Armored Rifle Platoon - a. the Armored Combat Group (GC Bld) - Describe the organization in personnel and material of the Armored Combat Group (GC Bld); Practice the formations adopted by the Armored Combat Group (GC Bld); Perform boarding and disembarking of the VBTP M 113; Practice conduct when disembarking from the VBTP M 113; Practice movements and displacements under enemy sight and fire; and Execute changes of formation, front, and direction. b. the Armored Rifle Platoon (Pel Fzo Bld) - Describe the organization in personnel and material of the Pel Fzo Bld; Operate the equipment of the Pel Fzo Bld; Identify the capabilities and limitations of the Pel Fzo Bld; Describe the formations used in maneuverability; Describe the conduct of the Pel Fzo Bld in changes of front, formation, and direction; in progression under enemy sight and fire; Describe the conduct of the Pel Fzo Bld for the execution of fire; and Employ the VBTP M 113 in fire support to the Pel Fzo Bld. c. Maneuverability - Execute the maneuverability activities of an Armored Rifle Platoon (Pel Fzo Bld); Command the Pel Fzo Bld and its elements in maneuverability; Execute a Maneuverability Training Course of the Pel Fzo Bld; and Execute fire support of the Pel Fzo Bld. The Support Platoon (Pel Ap) - Describe the personnel organization of the Pel Ap; Describe the functions and duties of its main components; Describe the personnel and material organization of the organic sections of the Pel Ap; Describe the duties of the components of the organic

sections of the Pel Ap; Describe the phases of maneuverability; State the commands in the various phases of maneuverability; Represent, using military symbols, the formations of the squads (Pç) and sections (Sec) of the Pel Ap; Select appropriate formations according to the situations created; Describe the ammunition resupply of the Pç and Sec of the Pel Ap; Command the Pç and Sec of the Pel Ap in different tactical situations in the field; Issue commands during maneuverability of the elements; Execute changes of front and formation; Execute movements and displacements under enemy sight and fire; Occupy firing positions; and Execute the phases of maneuverability. The Command and Support Company (Cia C Ap) of the Motorized Infantry Battalion (BIMtz) and Armored Infantry Battalion (BIB) - Describe the characteristics of the Cia C Ap of the BIMtz and BIB; Describe the capabilities and limitations of the Cia C Ap of the BIMtz and BIB; and Cite the subordinate elements of the Cia C Ap and their characteristics. The Anti-Tank Platoon (Pel AC) - Describe the personnel and material organization; Describe the functions and duties of its components; Describe the formations used in maneuverability; Describe the conduct of the Pel AC in the various phases of maneuverability; Issue fire commands; and Describe the ammunition resupply of the Pel AC. The Mortar Platoon (Pel Mrt Me) - Describe the organization of the Pel Mrt Me; Describe the functions and duties of the components of the Pel Mrt Me; Describe the conduct of the Pel Mrt Me during movements and equipment loading; Execute the conduct of a mortar platoon for fire execution; Correctly issue the prescribed commands; Execute the maneuverability activities of the Pel Mrt Me; and Command elements up to platoon level (Pel Mrt Me) in maneuverability. The Communications Platoon (Pel Com) - Describe the personnel and material organization; State the mission of the Pel Com; Describe the employment of Pel Com equipment; Describe the capabilities and limitations of the Pel Com; and Describe the functions and duties of its components. The Command Platoon (Pel Cmdo) - Describe the personnel and material organization; State the mission of the Pel Cmdo; Describe the employment of Pel Cmdo equipment; Describe the capabilities and limitations of the Pel Cmdo; and Describe the functions and duties of its components. The Reconnaissance Platoon of the BIB (Pel Expl) - Describe the personnel and material organization; State the mission of the Pel Expl; Describe the employment of Pel Expl equipment; Describe the capabilities and limitations of the Pel Expl; and Describe the functions and duties of its components. The Supply Platoon (Pel Sup) - Describe the personnel and material organization; State the mission of the Pel Sup; Describe the employment of Pel Sup equipment; Describe the capabilities and limitations of the Pel Sup; and Describe the functions and duties of its components. Describe the personnel and material organization; State the mission of the Maintenance Platoon (Pel Mnt); Describe the employment of Pel Mnt equipment; Describe the capabilities and limitations of the Pel Mnt; and Describe the functions and duties of its components. Integrative Objectives - Direct, guide, and promote changes in the attitudes of members of the subordinate element in order to achieve maneuverability objectives (LEADERSHIP); Act appropriately and in a timely manner without dependence on superior orders or decisions (INITIATIVE); Remain continuously in action in order to accomplish a task despite encountered difficulties (PERSISTENCE); Withstand, for as long as possible, fatigue resulting from physical and mental effort while maintaining efficiency (ENDURANCE) and Adapt to situations of restriction and deprivation while maintaining efficiency (RUGGEDNESS).

UNIT II - TERRAIN ORGANIZATION - Collective weapon emplacements - Describe the main characteristics of the emplacements for the MAG machine gun, Mrt 60 L (60 mm mortar), Mrt Me (mortar platoon), CSR 84 mm (84 mm recoilless rifle) and CSR 106 mm (106 mm recoilless rifle); and construct emplacements for the MAG machine gun, Mrt 60 L, Mrt Me, CSR 84 mm and CSR 106 mm. Fortifications - Describe the principles governing the preparation of terrain for combat; Describe the classification of field fortifications; Explain the priority of terrain organization works; and Describe the classification and types of obstacles. Integrative Objectives - Remain continuously in action in order to accomplish a task while overcoming encountered difficulties (PERSISTENCE); Withstand, for as long as possible, fatigue resulting from physical and mental effort while maintaining efficiency (ENDURANCE); and Adapt to situations of restriction and deprivation while maintaining efficiency (RUGGEDNESS).

MILITARY TECHNIQUES

UNIT I - VBTP M113 - The VBTP M113 - Cite the characteristics of the VBTP M113; Explain the capabilities and limitations of the VBTP M113; and Identify the main components of the VBTP M113. Crew and driving conduct of the VBTP M113 **-** Integrate the VBTP M113 crew by performing crew duties, demonstrating the ability to act in accordance with the rules governing interpersonal relations (CIVILITY) and the ability to establish interaction with people, promoting a cordial environment (SOCIAL SKILLS); Practice 1st echelon maintenance; Execute driving conduct of the VBTP M113 in varied terrain; and Practice driving conduct in the following situations: - river crossing; force maneuver; and - towing. Preparation of the VBTP M113 for combat - Identify the material required to prepare the VBTP M113 for combat; and Execute the preparation of the VBTP M113 for combat. Integrating objective - Drive the VBTP M113 in varied terrain through an application course.

UNIT II - COMMUNICATIONS - Radio Set Group III - Describe the use of the radio sets of Gp III in Infantry Units; Install the radio sets of Gp III; Operate the radio sets of Gp III; Perform first-echelon maintenance (1st Ech Mnt) of the radio sets of Gp III and Evaluate the employment of the Gp III radio sets, considering their characteristics. Radio Set Group IV - Describe the use of the radio sets of Gp IV in Infantry Units; Install the radio sets of Gp IV; Operate the radio sets of Gp IV; Operate the EB11-ERC 620 in frequency hopping mode; Perform first-echelon maintenance of the radio set of Gp IV and Evaluate the employment of the Gp IV radio sets, considering their characteristics. Radio Set Group VIII - Describe the use of the radio sets of Gp VIII in Infantry Units; Install the radio set of Gp VIII; Operate the radio set of Gp VIII; Perform first-echelon maintenance of the radio set of Gp VIII and Evaluate the employment of the Gp VIII radio sets, considering their characteristics. Antenna MOD PT 3089 UIEC - Describe the use of the Antenna MOD PT 3089 UIEC within Infantry Units; Install and employ the Antenna MOD PT 3089 UIEC; Perform first-echelon maintenance of the Antenna MOD PT 3089 UIEC and Evaluate the employment of the antenna, considering its characteristics.

UNIT III - WEAPON EMPLOYMENT - 60 mm Light Mortar - Cite the characteristics of the 60 mm light mortar (Mrt L); Identify the main parts of the Mrt L; Disassemble the Mrt L; Identify the main accessories and spare parts of the Mrt L; Identify the types of ammunition of the Mrt L; Identify the components of the ammunition; Describe the functioning of Mrt L Grenades; Identify the aiming equipment; Identify the components of the aiming equipment; Perform reading and record deflections and elevations; Assemble and disassemble the 60 mm Mrt L; Execute aiming procedures; Clear firing incidents and Perform maintenance of the Mrt L. Firing technique of the 60 mm Mrt L - Determine the causes of dispersion; Correctly use a firing table or firing ruler; Issue initial and subsequent fire commands; Determine initial firing data; Use the rules for fire control and observation; Execute fire adjustments; Select firing methods to engage targets of different nature; Identify the components of the fire command post (C Pos); Describe the purposes of the C Pos; Use the C Pos to determine initial firing data and fire corrections; Identify target location methods; Issue fire messages; Convert messages into fire commands and Use fire logs and firing scripts of the forward observer (OA). Firing of the 60 mm Mrt L - Execute daytime live firing; Execute nighttime live firing; Employ the firing log of the OA; Perform the duties of the OA and Perform first-echelon maintenance. 81 mm Medium Mortar (Mrt Me 81 mm RO) - Describe the characteristics of the Mrt Me; Describe its composition; Assemble and disassemble the Mrt Me; Perform first-echelon maintenance of the Mrt Me; Describe the composition of the C2 TRILUX aiming equipment; Operate the C2 TRILUX aiming equipment; Calibrate the C2 TRILUX aiming equipment; Explain ammunition functioning; Describe safety measures; 10 - Describe firing incidents and prepare the grenade for firing. Firing technique of the Mrt Me - Describe the most commonly used methods for parallel laying of the mortar platoon (Pel Mrt Me); Lay the Pel Mrt Me in parallel using the aiming device (Ap Pont); Lay the Pel Mrt Me in parallel using the compass; Level and lay the Mrt Me on aiming stakes; Refer aiming points and realign stakes; Describe the fundamental principle of Mrt Me fire; Describe the deployment of the Mrt Me Platoon (Pel Mrt Me) for firing; Apply correct terminology in fire control; Establish appropriate targets for the Mrt Me; Describe the work of the OA in firing; Describe target location procedures; Describe the sequence of elements of the initial message; Describe fire adjustment procedures; Describe the elements of the subsequent message; Apply procedures for determining initial firing data; Describe the duties and functions of Fire Center (C Tir) components; Describe the records of the fire center; Prepare fire commands (initial and subsequent); Solve, using the mil relation formula, the adjustment of different types of sheafs; Describe special corrections required to engage wide-front and deep targets; Describe the composition of the Protractor (PROTRACTOR) and the mortar Firing Ruler (disc) of the Mrt Me; Describe the composition of the Firing Board (PT) - PTT/PTO of the Mrt Me; Use the Protractor and the mortar firing ruler (disc) of the Mrt Me; Use the Firing Board (PT) - PTT/PTO of the Mrt Me; Identify the purpose of Mrt Me instruments used in fire control. Note (PTO); Describe the composition of the Fire Computer (MORZEN); Describe the purposes of the Fire Computer; Use the Fire Computer to determine initial and subsequent firing data and Use the Fire Computer to accomplish combined fire missions (HE or Smoke/Illumination). Mortar firing (Mrt Me) - Conduct a live fire mission using the PTO; Perform daytime platoon fire adjustment; Adjust different types of sheafs; Conduct fire transfer; Perform nighttime platoon fire adjustment; Conduct a live nighttime fire mission with illumination grenade and Perform first-echelon maintenance. 84 mm Recoilless Gun Karl Gustaf (Can SR 84 mm Karl Gustaf) - Cite the characteristics of the Can 84 SR; Use the accessories and spare parts of the Can 84 SR; Disassemble the gun; Identify the parts and components of the gun; Describe the phases and operations of its functioning; Identify the gun safety devices; Assemble the gun; Perform first-echelon maintenance; Identify the simple sight and the standard sight; Identify the parts of the sighting

telescope; Sight and the standard sight; Identify the parts of the sighting telescope; Describe the use of the sighting telescope; Identify the types of ammunition of the 84 mm recoilless gun (Can 84 SR); Describe the functioning of grenades; Describe safety measures and precautions in handling ammunition; Describe the employment technique of 84 mm CSR grenades; Clear firing incidents; Perform aiming through the bore with the simple sight and the standard sight; and Identify the sub-caliber device and describe its functioning. CSR 106 mm - Cite the characteristics of the 106 mm recoilless gun (Can 106 SR); Describe the breakdown of the gun; Identify accessories and spare parts; Disassemble and assemble the gun; Identify the parts and components of the gun; Describe the functioning of the gun; Perform first-echelon maintenance; Cite the characteristics of the sighting rifle (Fz apontador); Disassemble and assemble the sighting rifle; Describe its functioning; Identify its components; Identify the types of ammunition of the Can 106 SR and the sighting rifle and their classification; and cite safety measures and precautions in handling ammunition. Firing technique of CSR 84 - Practice firing positions; Issue fire commands; Align the systems; Identify firing incidents and clear firing incidents. Firing technique of CSR 106 mm - Describe the use of the M92D sight (Can 106); Practice firing positions; Issue fire commands; Align the systems; Identify firing incidents and clear firing incidents. CSR 84 and 106 mm firing - Execute daytime firing with the sub-caliber of the 84 mm gun; Execute daytime firing with the 84 mm and 106 mm recoilless guns; Execute nighttime firing with the 84 mm recoilless gun; Issue fire commands; Adopt safety measures for firing execution; and Perform first-echelon maintenance. Light Machine Gun (Mtr L) material technique - Describe the material characteristics, assembly, and disassembly of the Mtr; Describe the elements of the trajectory; Explain the cone of dispersion; Explain the influence of terrain on a beaten zone; Explain the difference between a precise, regulated, and correct fire group; and Execute types of fire in relation to friendly troops and the enemy. Light machine gun firing technique - Graphically represent grazing zones, danger zones, and dead angles; Select the type and rate of fire to engage a given target; Describe basic fire control and adjustment aspects; Calculate safety margins for firing in the interval or flank of friendly troops; Execute fire preparation in the interval or flank of friendly troops; Determine the possibility of fire over armored vehicles (Obt) and friendly troops (Tr); Determine safety limits; Determine safety targets; Bind fire using clinometer, aiming stakes, and pickets; Determine the data required for indirect fire in low visibility and night conditions; Describe precautions in bound fire preparation and execution; Determine indirect fire data; Describe masked fire; Prepare masked fire in operational sequence; Adjust fire; Bind fire; Determine all data required for fire missions; Identify fire plan purposes; and Prepare a fire sketch. Light Machine Gun (Mtr L) firing - Fill in a fire binding report; Prepare a firing position sketch; Fill in a fire binding report with sector targets; Execute direct fire and masked fire; and Perform first-echelon maintenance. Integrative Objectives - Act in accordance with the rules governing interpersonal relations as members of machine gun crews (CIVILITY); Establish interaction with other crew members, promoting a cordial environment (SOCIALITY); Deal with comrades without hurting susceptibilities (TACT); Control one’s own reactions in order to continue acting appropriately in different situations (EMOTIONAL BALANCE); and Act firmly and fearlessly in difficult and dangerous situations, in accordance with safety regulations (COURAGE).

GROUP III

ORGANIZATION, PREPARATION AND EMPLOYMENT OF THE LAND FORCE

UNIT I - SPECIAL INSTRUCTION - Special Operations: a. Generalities; b. Definition; c. Characteristics; d. Considerations on the Employment of Special Operations; e. Tactical Infiltration - Define special operations; Cite the characteristics of special operations; and Recognize a tactical infiltration within a conventional warfare framework. Patrol Command Procedures: a. Generalities; b. Basic Considerations; c. Phases of a Patrol Mission - Mission Receipt - Planning and Preparation - Mission Execution - Follow-on Activities; d. Command Procedures - Mission Preliminary Study - Use of Time Planning - Preliminary Planning - Warning Order - Reconnaissance - Detailed Planning - Order to the Patrol - Initial Inspection - Rehearsals - Final Inspection; e. Planning Notebook; and f. Duties and Responsibilities in the Patrol - Define patrol; List the types of patrol operations; Cite the phases of a patrol mission; Understand command procedures for planning a patrol mission; Cite the duties and responsibilities of each member of a patrol, for a platoon-size element; Conduct patrol mission planning in accordance with command procedures, for a platoon-size element; Use the planning notebook in preparing a patrol, for a platoon-size element; and Perform assigned tasks with commitment and dedication (DEDICATION). Ambush Patrol: a. Generalities;

b. Success Factors; c. Classification of Ambushes; d. Organization of the Patrol; e. Formations adopted in the execution of an ambush; f. Conduct to be adopted; g. Causes of Patrol Failure; and h. Command Guidance - Define an ambush; Cite the success factors in an ambush; Classify the types of ambush; Describe the organization and formations adopted by an ambush patrol; and Understand the peculiarities and planning of an ambush patrol. Motorized Patrol: a. Generalities; b. Preparation of Vehicles; c. Peculiarities; d. Planning. 1) Tactical Ground Plan, 2) Movement Plan - Organization for Movement - Penetration Procedures - Progression Procedures - Conduct in Critical Points and Dangerous Areas - Action upon Contact with the Enemy, 3) Loading and Embarkation Plan - Fundamentals, 4) Action on the Objective and 5) Withdrawal - Define Motorized Patrol; Describe the precautions to be taken in preparing vehicles; Recognize the organization for movement, penetration and progression procedures, and the conduct to be adopted when approaching critical points and when contacting the enemy in a Motorized Patrol; and Understand the peculiarities and planning of a Motorized Patrol. Riverine Patrol: a. Generalities; b. Definition of Riverine Patrol; c. Organization; d. Peculiarities; e. Planning, 1) Tactical Ground Plan, 2) Riverine Movement Plan - Riverine Movement Procedures - Formations for Movement - Landing Sites, 3) Loading and Embarkation Plan - Fundamentals and 4) Action on the Objective - Riverine Action with Ground Blockade and Ground Action with Riverine Blockade - Define Riverine Patrol; Describe the organization, formations adopted, and movement procedures of a Riverine Patrol; and Understand the peculiarities and planning of a Riverine Patrol. Airmobile Patrol: a. Generalities; b. Definition of Airmobile Operations; c. Types of Airmobile Operations; d. Peculiarities; and e. Planning; 1) Tactical Ground Plan, 2) Landing Plan - Primary Landing Zone (LZ) - Alternate Landing Zone (LZ), 3) Air Movement Plan and 4) Loading and Embarkation Plan - Fundamentals - Define airmobile operation; List the types of airmobile operations; and Understand the peculiarities and planning of an airmobile operation. Evasion: a. Generalities; b. Definitions; c. Assisted Evasion - Escape and Evasion Support Network - Escape and Evasion Support Line; d. Evader Procedures; and e. Final Considerations - Define evasion and assisted evasion; Describe aspects related to an evasion; and Understand the peculiarities of conducting an assisted evasion from enemy territory to friendly lines. Operational Readiness - Carry out preparation for the ceremony and for the internship, in accordance with the guidance contained in the course information sheet; Present oneself fully equipped with all material and equipment required for the internship; Prepare personal equipment and armament in accordance with the instructions received (DEDICATION); Anticipate planning or execution of tasks, regardless of instructor guidance (INITIATIVE) and maintain in good condition the material and/or facilities under one’s responsibility (CARE). Integrative Objectives – Plan and command a platoon-size patrol in the execution of special operations within a conventional warfare framework; Perform embarkation, loading, movement, and disembarkation of helicopter troops (Helcp), with a platoon-size element, in the execution of a patrol within a conventional warfare framework; Navigate a military vessel, applying riverine techniques, with a platoon-size element, in the execution of a patrol within a conventional warfare framework; Perform a swimming infiltration in order to reach the objective in a riverine assault; Conduct land and/or riverine orientation and navigation during the execution of a patrol, with a platoon-size element, within a conventional warfare framework; Employ various organic weapons of a platoon-size element, as well as explosives and demolitions, in the execution of a patrol within a conventional warfare framework; Conduct a tactical infiltration through enemy lines, with a platoon-size element, in the execution of a patrol within a conventional warfare framework; Conduct an assisted evasion from enemy territory to friendly lines within a conventional warfare framework; and Overcome oneself in the face of difficulties arising from new facts, environments, or activities (ADAPTABILITY). Overcome difficulties, relying on one’s own success (SELF-CONFIDENCE); Actively participate in activities, contributing to group work (COOPERATION); Face risk situations without hesitation (COURAGE); Present innovative solutions to emerging problems (CREATIVITY); Select, with conviction, the best course of action (DECISION-MAKING); Commit oneself fully to the preparation and execution of activities (DEDICATION); Assign tasks within the group and supervise them adequately and efficiently (LEADERSHIP/DIRECTION); Remain under control in situations of stress, tension, or risk (EMOTIONAL BALANCE); Modify or adjust the course of action, adapting planning or mission execution to new conditions (FLEXIBILITY); Take initiative in planning or executing tasks, regardless of instructor guidance (INITIATIVE); Lead with enthusiasm and fairness, making one’s course of action prevail through reasoning, asserting oneself through competence and example, and promoting group cohesion (LEADERSHIP). Plan and accomplish the mission

in a methodical way, in a logical sequence (ORGANIZATION); persist in the execution of tasks until the final objective is achieved (PERSISTENCE); maintain good performance in task execution despite physical and mental fatigue (RESISTANCE); accomplish missions within the established timeframe, following safety rules and accepting the consequences of one's mistakes (RESPONSIBILITY); and maintain in good condition the material and/or facilities under one's responsibility (CARE).
UNIT II - CLOSE ORDER DRILL - Close order drill on foot - Execute movements with weapon at the "attention" position; Execute "cover" and "dress" (Align); Execute movements and turns; Execute the salute in formation; and Command a troop element in close order drill at the halt. Integrative Objectives - Demonstrate attitudes and bearing consistent with military standards (PRESENTATION); and Lead and coordinate a close order drill session for a platoon (LEADERSHIP).
UNIT III - SIMEB (Brazilian Army Military Instruction System) - Describe the structure and conception of SIMEB according to its periods and the respective phases of the training year; Describe the methodological foundations of individual instruction; Describe Individual Instruction Objectives (OII) and Select and formulate intermediate training objectives based on the Training Program (PP). Basic Training and Planning - Describe training; Highlight the main aspects of the training program and evaluation processes according to their basic concepts, activities, and objectives; Plan the instruction of a military element using objectives and training programs, evaluation criteria, and system mechanisms; Highlight, from the Training Standard Program (PPA), the relevant aspects for planning the training of a Company-sized unit (SU); Prepare a Training Schedule (QTS); and Choose the most appropriate alternative, in a timely manner and with conviction, in the planning of instruction for a military element (DECISION).
UNIT IV - VEHICLES OF WEAPON SYSTEMS - Classification of Military Vehicles - Describe the regulations for the classification of Brazilian Army military vehicles; Identify the vehicles in use in the Brazilian Army; Describe wheeled and tracked vehicle types; and Apply the regulations regarding vehicle registration in use in the Brazilian Army, associating the registration number with its respective vehicle (ORGANIZATION). Non-Armored Wheeled Vehicles: a. Generalities; b. Fundamental Systems of vehicles – Integrate the various fundamental systems of wheeled vehicles, relating their functioning. c. First-echelon maintenance - Identify the procedures required to perform first-echelon maintenance; Perform first-echelon maintenance on a vehicle with common maintenance faults (CARE); Guide the execution of first-echelon maintenance on wheeled vehicles; and Evaluate first-echelon maintenance of a wheeled vehicle. Armored Vehicles: a. Generalities; b. Peculiar components of armored vehicles - Identify the various specific components of armored vehicles, together with the evidence and symptoms of the most common failures and the basic procedures to prevent them. c. First-echelon maintenance - Identify the procedures required to perform first-echelon maintenance; Perform first-echelon maintenance on an armored vehicle with common maintenance faults (CARE); Guide the execution of first-echelon maintenance on armored vehicles; and Evaluate first-echelon maintenance of an armored vehicle. Special Vehicles: a. Generalities; b. Special vehicles - Identify the various types of special vehicles existing in the Brazilian Army; c. Components - Identify the various specific components of special vehicles, together with the evidence and symptoms of the most common failures and the basic procedures to prevent them; Identify the procedures required to perform first-echelon maintenance; Perform first-echelon maintenance on a special vehicle with common maintenance faults (CARE); Guide the execution of first-echelon maintenance on special vehicles; and Evaluate first-echelon maintenance of a special vehicle. Integrative Objectives - Classify and obtain the registration of vehicles in use in the Brazilian Army; and Conduct and evaluate first-echelon maintenance of vehicles in the Brazilian Army.

GROUP IV

SHOOTING
UNIT I - RIFLE SHOOTING - Rifle shooting - Execute rifle firing of MEE 11, MEE 12, and MEE 13; Execute rifle firing in simulated combat situations; Apply Safety and Procedure Rules at the Firing Range; and Perform first-echelon maintenance for firing. Integrative Objectives - Apply firing fundamentals in the execution of firing; Demonstrate safety in firing execution (SELF-CONFIDENCE); Maintain composure during firing execution (EMOTIONAL BALANCE); and Show care in handling the rifle (CARE).
UNIT II - PISTOL SHOOTING - Pistol firing - Execute pistol firing of MEE 08 and MEE 09; Execute pistol firing in simulated combat situations; Apply Safety and Procedure Rules at the Firing Range; and Perform first-echelon maintenance for firing. Integrating Objectives - Apply firing fundamentals in the

execution of firing; Demonstrate safety in firing execution (SELF-CONFIDENCE); Maintain composure during firing execution (EMOTIONAL BALANCE); and Show care in handling the pistol (CARE).
UNIT III - INTRODUCTION TO COMPETITION SHOOTING - Competition organization - Competition organization - Describe the aspects of preparation, administration, and conduct of a shooting competition. Shooting events - Describe the various shooting events regulated by the ISSF; and Describe the various shooting events regulated by CISM and CDE. Integrative Objectives - Conduct a shooting event; and Demonstrate safety and conviction in conducting a shooting event (EMOTIONAL BALANCE).

GROUP I

MILITARY PHYSICAL TRAINING I (UTILITY/SPORTS)
UNIT I - SWIMMING - 1. Uniformed swimming, platform jump and submerged swimming in uniform – Execute the platform jump under the conditions established by the Internal Educational Assessment Standards (NIAE); Swim 7 meters underwater in uniform under the conditions established by the NIAE; Execute a 50 m swim in uniform under the conditions established by the NIAE; and – Withstand fatigue resulting from uniformed swimming training while maintaining efficiency (RESISTANCE). Demonstrate the ability to act firmly and fearlessly in the platform jump (COURAGE). Control one's own reactions and continue acting appropriately in different situations (EMOTIONAL BALANCE).
UNIT II - MILITARY PENTATHLON COURSE - Military Pentathlon Course. a. Execute obstacle crossing on the MPC under the conditions established by the Internal Educational Assessment Standards (NIAE). b. Demonstrate the ability to act firmly and fearlessly when overcoming obstacles (COURAGE). c. Withstand fatigue resulting from athletic training (RESISTANCE).
UNIT III - SPORTS - MAJOR GAMES. a. Identify the procedures for the execution of major games. b. Participate in sessions of: 1) giant football; 2) military ball; 3) giant basketball. c. Establish friendly relations with superiors, peers, and subordinates (CAMARADERIE). d. Contribute spontaneously to the work of an individual and/or a team (COOPERATION).

MILITARY PHYSICAL TRAINING II (NEUROMUSCULAR)
UNIT I - NEUROMUSCULAR AND COMPLEMENTARY TRAINING - Basic Gymnastics – Perform basic gymnastics exercises. b. Perform abdominal exercises under the conditions established by the NIAE. c. Demonstrate willingness to improve physical capacity (DEDICATION). d. Withstand fatigue resulting from neuromuscular training (RESISTANCE). 2. Gymnastics with logs (toros) a. Perform log gymnastics exercises. b. Demonstrate willingness to improve physical capacity (DEDICATION). c. Withstand fatigue resulting from neuromuscular training (RESISTANCE). 3. Circuit training. Perform exercises on the Circuit Training Course (PTC). b. Perform passage through the PTC. c. Perform pull-ups on the bar under the conditions established by the NIAE. d. Demonstrate willingness to improve physical capacity (DEDICATION). e. Withstand fatigue resulting from neuromuscular training (RESISTANCE). 4. Rope course / Rope climbing. a. Perform course crossing, applying obstacle crossing techniques. b. Perform vertical rope climbing under the conditions established by the NIAE. c. Act firmly and fearlessly in dangerous and difficult situations, following safety rules (COURAGE). d. Control one's own reactions and continue acting appropriately in different situations (EMOTIONAL BALANCE). e. Demonstrate willingness to improve physical capacity (DEDICATION). f. Withstand fatigue resulting from neuromuscular training (RESISTANCE).

MILITARY PHYSICAL TRAINING III (CARDIOPULMONARY)
UNIT I - CARDIOPULMONARY TRAINING 1. Cross-country running. a. Execute cross-country running over a distance of 3250 m under the conditions established by the NIAE. b. Demonstrate willingness to improve running technique (DEDICATION). c. Withstand fatigue resulting from running training (RESISTANCE). 2. Uniformed cross-country running. a. Execute uniformed cross-country running over a distance of 5000 m under the conditions established by the NIAE. b. Demonstrate willingness to improve running technique (DEDICATION). c. Withstand fatigue resulting from running training (RESISTANCE).

GROUP II

TACTICAL EMPLOYMENT

UNIT I - COMPANY COMMANDER COMMAND WORK - 1. Sequence of Command Work - Explain the phases of the Company Commander (Cmt SU) command work method; Describe the actions of the Company Commander in each phase of the command work; and Perform the actions of the Company Commander's command work in an operation. 2. Combat Intelligence (PITCI) - Explain the Process of Integration of Terrain, Weather Conditions, and Enemy. 3. Company Commander Situation Estimate - Analyze the mission; Analyze terrain and climatic and meteorological conditions, drawing conclusions on their influence on operations; Analyze the enemy, drawing conclusions on its capabilities and limitations (shortcomings) at the considered level; Analyze available assets; Develop, analyze, and compare courses of action; and Write the decision. Platoon Commander Situation Estimate in Combat - Apply the command procedures of the Infantry Platoon (Pel Fzo); Conduct the Platoon Situation Estimate, emphasizing terrain analysis; and Decide on the course of action to be adopted by the platoon, considering decision factors. 4. Battalion, Company, and Platoon Operations Orders – Interpret the Battalion Commander Operations Order (up to paragraph 3); Prepare the Company Commander and Platoon Operations Order (up to paragraph 3); and Transmit the Company and Platoon Operations Order. 5. Observation Post Exercise - a. Develop, analyze, and compare courses of action. b. Write the decision.

UNIT II - FUNDAMENTALS OF OPERATIONS - 01. Offensive Operations - Describe the fundamentals and basic concepts governing the employment of Infantry in Offensive Operations (Op Ofs). Explain the infantry mission in Op Ofs. Describe the forms of maneuver. Identify the types of offensive operations. Identify the forces employed in the offensive. Identify the main characteristics of Op Ofs. 02. Defensive Operations – a. Describe the fundamentals of defense. b. Describe the types of Defensive Operations (Op Def) and their forms of maneuver. c. Explain the phasing of the defensive system; d. Describe the forces employed in defensive operations. e. Explain the infantry mission in defensive operations.

UNIT III - MILITARY COMMUNICATIONS 1. Fundamentals of Communications a. Describe the general structure and composition of the SisComEx; b. Identify the purposes of the Military Communication System (Sis Com Mil); c. Interpret the principles of employment of Communications; d. Identify the communication systems established at Group (GU), Unit (U), Company (SU), and lower echelons; e. Describe the phases of Communications Planning (Plj de Com) at Company level; f. Prepare the required communications link chart for a Company and platoon; g. Interpret paragraph 5 of the Battalion Operations Order (O Op). 2. Command Post a. Explain basic concepts related to the Command Post (PC); b. Identify factors for selecting Command Post locations; c. Explain the internal layout of communications installations in the Battalion Command Post; d. Describe Command Post displacement methods; e. Select the Company Command Post location considering selection factors. 3. Electronic Warfare a. Define Electronic Warfare; b. Recognize basic concepts of Electronic Warfare; c. Identify the tactical employment of Electronic Warfare in offensive and defensive operations. 4. Radio Communication System a. Identify typical radio networks of Battalion, Company, and Platoon; b. Describe SCR (Radio Communication System) documents; c. Identify the components of QRR and DRR; d. Locate necessary information in the Battalion QRR and DRR for Company communications planning; e. Evaluate the capabilities and limitations of the Company and Platoon radio communication system considering available means. 5. Physical Communication System a. Explain circuit classification; b. Describe SCF documents; c. Identify components of circuit diagrams and line route charts; d. Locate necessary information in Battalion circuit diagrams and line route charts for Company communications planning; e. Evaluate the capabilities and limitations of the SCF at Company and Platoon level considering available means. 6. Messenger Communication System a. Explain messenger classification; b. Describe SCM documents; c. Identify components of the messenger route chart; d. Locate necessary information in the Battalion messenger chart for Company communications planning; e. Evaluate the capabilities and limitations of the SCM at Company and Platoon level considering available means. 7. Communications System in Offensive Operations a. Describe system employment in Offensive Operations; b. Plan Company and Platoon radio communications in Offensive Operations. 8. Communications System in Defensive Operations a. Describe system employment in Defensive Operations; b. Plan Company and Platoon radio communications in Defensive Operations.

UNIT IV - FIRE SUPPORT 1. Fundamentals of Fire Support a. State the classification of fires. b. Cite the fire support agencies. c. Identify the tactical missions of fire support agencies. d. Describe the composition and activities of the Fire Support Coordination Center. e. Identify the duties and responsibilities of the personnel of the Fire Support Coordination Center. 2. Fire Planning in the Rifle Company a. Cite available fire support. b. Identify the tactical missions of the Platoon Support Section. c. State the duties of personnel in company fire support. d. Identify the degree of control and fire discipline. e. Company Commander Operations Order regarding Fires and Support Platoon. 3. Fire Planning in the Infantry Battalion a. State the composition of the Fire Support Plan (PAF).

b. Identify the annexes of the Fire Support Plan (PAF). c. Identify the characteristics of fire planning. d. Describe the

technique for allocating fire support. e. Develop the Battalion Fire Support Plan and its respective annexes. f. Describe the execution and coordination of fires. 4. Battalion and Company Fire Support in the Movement to Contact a. Identify the particularities of Battalion and Company Fire Support in a Movement to Contact Operation (Op de M Cmb). 5. Battalion and Company Fire Support in the Attack a. Identify the particularities of Battalion and Company Fire Support in an Attack Operation (Op de Atq). 6. Battalion and Company Fire Support in Exploitation of Success a. Identify the particularities of Battalion and Company Fire Support in an Exploitation of Success Operation (Op de Apvt Exi). 7. Battalion and Company Fire Support in Area Defense a. Identify the particularities of Battalion and Company Fire Support in an Area Defense Operation (Op de Def A).
a. a. Identify the particularities of Battalion and Company Fire Support in an Area Defense Operation (Op de Def A). 8. Battalion and Company Fire Support in Retrograde Movements a. Identify the particularities of Battalion and Company Fire Support in a Retrograde Movement Operation (Op de Mvt Rtgd). 9. Battalion and Company Anti-Aircraft Self-Defense a. Identify how anti-aircraft self-defense is conducted within the Infantry Battalion.

UNIT V - LOGISTICAL SUPPORT - 1. Fundamentals of Logistical Support a. Describe logistical activities. b. State the classification and types of supply. c. Describe supply flows. 2. Infantry Battalion Logistical Support a. Describe the Unit (U) trains. b. Describe the logistical installations of the Unit. c. Cite the particularities of supply classes I, III, and V within the Unit. d. State the activities of medical support, transportation, maintenance, and personnel within the Unit. 3. Company of Riflemen Logistical Support a. Identify the personnel and material involved in logistical support (Ap Log). b. Interpret paragraph 4 of the Battalion Operations Order (O Op Btl). c. Describe the logistical installations of the Company trains area (SU). d. State the factors to be considered when selecting the Company trains area. e. Locate the Company trains area. f. Describe the supply flow, particularly for classes I, III, and V. 4. Battalion and Company Logistical Support in the Movement to Contact a. Identify the particularities of Battalion and Company Logistical Support in a Movement to Contact Operation (Op de M Cmb). 5. Battalion and Company Logistical Support in the Attack a. Identify the particularities of Battalion and Company Logistical Support in an Attack Operation (Op de Atq). 6. Battalion and Company Logistical Support in Exploitation of Success a. Identify the particularities of Battalion and Company Logistical Support in an Exploitation of Success Operation (Op de Apvt Exi). 7. Battalion and Company Logistical Support in Area Defense a. Identify the particularities of Battalion and Company Logistical Support in an Area Defense Operation (Op de Def A). 8. Battalion and Company Logistical Support in Retrograde Movements a. Identify the particularities of Battalion and Company Logistical Support in a Retrograde Movement Operation (Op de Mvt Rtgd).

UNIT VI - ATTACK - Attack Fundamentals - a. Describe the doctrinal principles governing Infantry employment in the attack. b. Describe the coordination and control measures used in the attack. 2. Rifle Company in the Attack – a. Describe the planning and execution particularities of the Rifle Company in the attack. 3. Rifle Company in Night Attack and under Limited Visibility Conditions. a. Describe the planning and execution particularities of night attack and operations under limited visibility conditions. 4. Rifle Platoon in Night Attack – a. Conduct a Night Attack as part of a Rifle Platoon within a Company. 5. Case Study. a. Apply company command procedures in an attack. b. Conduct the Company Situation Estimate in the attack. c. Develop the company decision in the attack. d. Write and issue the Company Operations Order in the attack. 6. Observation Post Exercise - a. Develop decision-making actions in the attack. b. Apply conduct for the seizure and consolidation of objectives.

UNIT VII - MARCH TO COMBAT - 1. Fundamentals of the Movement to Contact a. Describe the doctrinal principles of the Movement to Contact (M Cmb). b. Interpret the Infantry mission in the M Cmb. c. Describe the types of M Cmb. d. Identify the types of contact. e. Describe the dispositions and formations. f. Identify the degrees of security. g. Cite coordination and control measures in the M Cmb. 2. Rifle Company in the M Cmb a. Describe the particularities of planning and execution of the Company in the Movement to Contact. 3. Scheme-Based Exercise a. Apply the Company command procedures as Advance Guard Element of the Battalion. b. Conduct the Company Situation Estimate as Advance Guard Element of the Battalion. c. Develop the Company decision as Advance Guard Element of the Battalion. d. Write the Company Operations Order as Advance Guard Element of the Battalion. e. Conduct the Platoon Situation Estimate as Reconnaissance Element in the Movement to Contact. f. Issue the Platoon Commander Operations Order as Reconnaissance Element in the Movement to Contact. g. Conduct the Platoon Situation Estimate as Combat Element in the Movement to Contact. h. Issue the Platoon Commander Operations Order as Combat Element in the Movement to Contact. 4. Observation Post Exercise a. Develop decisions regarding conduct of the Company Commander as Advance Guard Element of the Battalion. b. Describe the conduct of the Rifle Platoon as Reconnaissance Element in the Movement to Contact. c. Describe the conduct of the Rifle Platoon as Combat Element in the Movement to Contact.

UNIT VIII - EXPLOITATION OF SUCCESS / PURSUIT - 01. Fundamentals of the Exploitation of Success (Apvt Exi) Explain the purpose of the Exploitation of Success. Describe the organization of task forces in the Exploitation of Success. Explain the characteristics and coordination and control measures of the Exploitation of Success. Describe the particularities of execution of the Exploitation of Success. Explain the security measures for the Exploitation of Success. 02. Rifle Company in the Exploitation of Success Describe the particularities of planning and execution of the Rifle Company Task Force and the Company in the Exploitation of Success. b. Describe the particularities of planning and execution of the Rifle Company Task Force as a combat element in the Exploitation of Success. 03. Reconnaissance Platoon in the Exploitation of Success Explain the mission of the Reconnaissance

Platoon in the Exploitation of Success. Describe the employment of the Platoon in the Exploitation of Success. 04. Scheme-Based Exercise a. Conduct the Rifle Company Situation Estimate in the Exploitation of Success. b. Develop and issue the Rifle Company Commander Operations Order in the Exploitation of Success. c. Conduct the Rifle Company Situation Estimate in Pursuit. Develop and issue the Rifle Company Commander Operations Order in Pursuit. d. Conduct the Armored Rifle Platoon Situation Estimate in the Exploitation of Success. f. Develop and issue the Armored Rifle Platoon Commander Operations Order in the Exploitation of Success. g. Conduct the Armored Rifle Platoon Situation Estimate in Pursuit.

UNIT IX - AREA DEFENSE AND LINK-UP - 01. Fundamentals of Area Defense Identify the purpose of area defense. Describe the coordination and control measures and the forces involved in area defense. Identify the fundamentals of defense in area defense operations. 02. Rifle Company in Area Defense Explain the mission of the Mechanized Rifle Company (Cia Fuz Mtz) in Area Defense (Def A). b. Describe the particularities of planning and execution of Area Defense by the Mechanized Rifle Company in the Main Defensive Area (LAADA). c. Describe the particularities of planning and execution of Area Defense by the Mechanized Rifle Company in the Battalion Reserve (Res do Btl). d. Describe the particularities of planning and execution of Area Defense by the Mechanized Rifle Company in Combat Outposts (PAC). 03. Scheme-Based Exercise a. Conduct the situation estimate considering decision factors for a Mechanized Rifle Company in first echelon in Area Defense. b. Develop the decision for Area Defense for a Mechanized Rifle Company in first echelon. c. Write and issue the Operations Order of a Mechanized Rifle Company in first echelon for Area Defense. d. Conduct the Company Situation Estimate in Reception Operations (Aclh). e. Conduct Company command procedures in a Reception Operation. f. Write and issue the Company Operations Order in Reception. g. Conduct the Platoon Commander Situation Estimate, as part of a Company in first echelon in the Defensive Area of Operations (ADA). h. Develop and issue the Platoon Commander Operations Order for Area Defense. i. Conduct the Platoon Situation Estimate and issue the Platoon Operations Order in Combat Outposts (PAC). Conduct the Platoon Commander Situation Estimate in support of an Area Defense Operation. Develop and issue the Platoon Operations Order for Area Defense. 04. Observation Post Exercise a. Develop conduct decisions for the Mechanized Rifle Company in first echelon in Area Defense. b. Describe the conduct of the Rifle Platoon, as part of a Mechanized Rifle Company in first echelon in the Defensive Area of Operations (ADA). c. Describe the conduct of the Rifle Platoon in the depth of a Mechanized Rifle Company in first echelon in the ADA. d. Describe the conduct of the Mortar Platoon in Defense.

UNIT X - RETROGRADE OPERATIONS - 01. Fundamentals of Withdrawal and Retirement Explain the purpose of withdrawal and retirement. Describe the types of withdrawal and retirement. c. Describe the forces employed in withdrawal (Ret) and retirement. 03. Rifle Company in Withdrawal and Retirement a. Explain the mission of the Company in withdrawal under pressure (Ret sob Prss) and in retirement (Rda). Describe the particularities of planning and execution of withdrawal without pressure by the Mechanized Rifle Company (Cia Fuz Mtz). 04. Rifle Company in Delay Operations a. Explain the mission of the Company in delay operations. b. Describe the particularities of planning and execution of delay operations by the Armored Rifle Company (Cia Fuz Bld). 05. Infantry Platoon in Withdrawal and Retirement a. Explain the mission of the Rifle Platoon in withdrawal under pressure and in retirement. b. Describe the particularities of planning and execution of withdrawal under pressure by the Rifle Platoon, as part of a reserve company. c. Describe the particularities of planning and execution of withdrawal without pressure by the Rifle Platoon, as part of a first-echelon company and a reserve company of the Battalion. 06. Rifle Platoon in Delay Operations a. Explain the mission of the Armored Rifle Platoon in delay operations (Aç Rtrd). b. Describe the particularities of planning and execution of delay operations by the Rifle Platoon. 11. Scheme-Based Exercise a. Conduct the Company Situation Estimate for withdrawal under pressure and retirement. b. Develop the Company decision for withdrawal under pressure and retirement. c. Write and issue the Company Operations Order for withdrawal under pressure and retirement. d. Conduct the Armored Rifle Company Situation Estimate in delay operations. e. Apply command procedures of a Rifle Platoon for withdrawal under pressure and retirement. f. Conduct the Situation Estimate of the Rifle Platoon, as part of a first-echelon company, in withdrawal under pressure and retirement. g. Develop and issue the Platoon Operations Order, as part of a first-echelon company, in withdrawal under pressure and retirement. h. Apply command procedures of an Armored Rifle Platoon for delay operations. i. Conduct the Situation Estimate of the Armored Rifle Platoon for delay operations. j. Develop the decision of the Armored Platoon for delay operations. l. Write and issue the Armored Rifle Platoon Operations Order for delay operations.

UNIT XI - COMPLEMENTARY OPERATIONS - 1. Reception Operations (Aclh) a. Describe the purpose, main characteristics (Pcp Crtr), types, and coordination and control measures of a reception operation. b. Explain the mission of the Rifle Company (Cia Fuz) in reception operations. 2. Passage of Lines a. Describe the purpose, main characteristics (Pcp Crtr), types, and coordination and control measures of a passage of lines operation. b. Explain the mission of the Rifle Company in the passage of lines.

UNIT XII - TACTICAL EXERCISES - 1. Offensive Operations Tactical Module a. Apply the fundamentals and basic concepts governing the employment of the Rifle Company (Cia Fuz) in the Movement to Contact (M Cmb). b. Command the Rifle Company in the Movement to Contact. c. Command the Rifle Platoon as Reconnaissance Element (Esc Rec) in the Movement to Contact. d. Command the Support Platoon (Pel Ap) in the Movement to Contact, providing support to the Company operation as Combat Element (Esc Cmb). e. Apply the fundamentals and basic concepts governing the employment of the Rifle Company in the Coordinated Daylight Attack (Atq Coor Diu).

f. Command the Company in the Coordinated Daylight Attack. g. Apply the fundamentals and basic concepts governing the employment of the Rifle Company in a Passage of Lines. h. Command the Company in a Passage of Lines. i. Apply the fundamentals and basic concepts governing the employment of the Rifle Company in Night Attack (Atq Not). j. Command the Company in Night Attack. l. Provide Fire Support (Ap F) to Battalion Mechanized Operations in Coordinated Attack and to the Rifle Company. m. Apply the fundamentals and basic concepts governing the employment of the Rifle Company in the Exploitation of Success (Apvt Exi). n. Command the Company in the Exploitation of Success. o. Command the Armored Rifle Platoon in Exploitation of Success Operations. 2. Defensive Operations Tactical Module a. Conduct, with the Mechanized Rifle Company in first echelon, an Area Defense (Def A). b. Apply the fundamentals and basic concepts governing the employment of the Rifle Company in Area Defense. c. Command the Company in Area Defense. d. Apply the fundamentals and basic concepts governing the employment of the Rifle Company in Reception Operations. e. Command the Company in Reception Operations. f. Prepare the Platoon fire plan and firing schedule. g. Conduct, with the first-echelon Rifle Platoon, an Area Defense. h. Conduct, with the Reserve Platoon (Aprf), an Area Defense. i. Provide Platoon Support (Pel Ap) to Area Defense operations. j. Provide Mortar Fire Support (Mrt Me Ap) to Battalion Mechanized operations in Area Defense. k. Command the Company in withdrawal operations. m. Support withdrawal operations with Platoon Support fires. 3. Exploitation of Success Tactical Exercise a. Conduct the actions of the Armored Rifle Platoon and Company in Exploitation of Success. b. Plan the conduct of the Support Platoon in Exploitation of Success. c. Describe the conduct of the Reconnaissance Platoon in Exploitation of Success. d. Command the Armored Rifle Platoon in Exploitation of Success.

MILITARY TECHNIQUES

UNIT I - HEAVY MORTAR 120 mm 1. Mrt P 120 mm Presentation of the 120 mm Heavy Mortar (Mrt P 120 mm) **-** Goniometer-Compass Aiming Device **-** Ammunition **-** a. State its characteristics. b. Identify its main parts. c. Assemble and disassemble the mortar. d. Perform 1st echelon maintenance. e. Identify the main parts of the M53 Aiming Equipment. f. Operate the aiming equipment. g. Describe the functioning of the illumination device. h. Calibrate the aiming equipment. i. State the purpose and employment of the Ballistic Guide (GB). j. State the nomenclature of the GB and its characteristics. k. List the accessories and spare parts of the GB. l. Describe the functioning of the GB. m. Operate the GB: movement, leveling, compass, and tripod. n. Identify the types of ammunition of the Heavy Mortar. o. Describe the functioning of the ammunition. p. State safety measures. q. Identify firing incidents. r. Prepare the grenade for firing. 2. Fire Techniques of the 120 mm Heavy Mortar – Position Corrector – Firing Board a. Describe the purpose of the Position Corrector. b. Identify the parts of the Position Corrector. c. Use the Position Corrector to determine firing data. d. Describe the purpose of instruments used in fire control. e. Identify the components of the Location Protractor (T Loc), Deflection and Range Protractor (TDA), Graphic Firing Table (TGA), and Firing Board (PT). f. Properly employ the instruments. g. Construct an Observed Firing Board (PTO). 2. Fire Techniques of the 120 mm Heavy Mortar – Forward Observer – Central Fire Position Entry i. Describe the work of the Forward Observer (OA) in firing. j. Describe the process for target location. k. Prepare and transmit initial and subsequent messages. l. Adjust Heavy Mortar fire. m. Describe the OA conduct during adjustment and special situations. n. Describe the deployment of the Mortar Platoon for firing. o. Describe the most commonly used process for parallel laying of the Heavy Mortar Platoon. p. Lay the Heavy Mortar Platoon in parallel, using the Ballistic Guide (GB), using the Lç or Az M method. q. State the fundamental principle of Heavy Mortar fire. r. State the duties and functioning of the Fire Control Center components. s. Identify Fire Control Center records. t. Identify the components of a fire command. u. State initial and subsequent fire commands. v. Solve, using the mil relation formula, the adjustment of different fire fans. w. Describe special corrections required to engage wide-front and deep targets. 3. 120 mm Heavy Mortar Fire a. Conduct a live fire mission using the Observed Firing Board (PTO). b. Conduct platoon fire adjustment. c. Adjust different types of fire fans. d. Conduct fire transfer. e. Conduct a night live fire mission using illumination rounds.

GROUP III

ORGANIZATION, PREPARATION AND EMPLOYMENT OF THE LAND FORCE

UNIT I - MILITARY ADMINISTRATION - 1. Personnel Management - a. Describe the rights and prerogatives of military personnel. b. Describe the reasons for removal of military personnel from active service. c. Describe the promotion criteria in the Armed Forces. d. Describe the regulations for movement/transfer of officers and enlisted personnel, including the particularities of locality categories 1st and 2nd. e. Describe the work of the Pay Slip Review Board. f. Describe the personnel evaluation system in the Army. g. Perform the duties of a Pay Slip Review Board. Interpret the Military Pay Law (LRM) and personnel payment regulations. h. Demonstrate the ability to conduct the work of the Pay Slip Review Board in a systematic and efficient manner (ORGANIZATION). 2. Materiel Management – a. Describe the rules for receipt and inspection of materiel to be followed by officers of the Materiel Reception and Inspection Board. b. Describe the system for entry into accountability (inclusion in charge) of permanent materiel assigned to unit elements. c. Describe the distribution system of permanent and consumable materiel to unit elements. d. Describe the process for removal (discharge) of materiel in a unit. e. Describe the system for transfer of movable property during change of assignment. f. Prepare documentation related to materiel receipt and

inspection. g. Demonstrate the ability to conduct the work of the Materiel Reception and Inspection Board in a systematic and efficient manner (ORGANIZATION).

UNIT II - VEHICLE MAINTENANCE - Brazilian Army Maintenance System – Identify the basic concepts of maintenance; list the objectives of maintenance; identify the maintenance categories and echelons used in the Brazilian Army; describe the general maintenance rules and apply the fundamentals of maintenance categories. Standards, Techniques, and Maintenance Procedures - Define the responsibilities and duties of commanders at all levels; describe the duties of the Maintenance Officer; identify the technical report and its purposes; identify the technical inquiry and its purposes; define the frequency of preventive maintenance; explain specific procedures for 1st echelon preventive maintenance. Maintenance in the Rifle Company (SU) – Apply 1st echelon preventive maintenance tables for wheeled and tracked vehicles; prepare the SU for technical and command inspections; fill out the vehicle service form; describe preventive maintenance planning; set up the preventive maintenance schedule; identify the semiannual maintenance control chart; identify the lubrication control chart and conduct preventive maintenance of a small SU element (LEADERSHIP). Integrating objective - Carry out vehicle maintenance control within the SU level.
UNIT III - DRILL - Planning and Execution of Drill Instruction - Plan and conduct a drill instruction session with unarmed military personnel; plan and conduct a drill instruction session with personnel armed with the rifle and/or M9 M972 “Beretta” machine gun; and plan and conduct a military honors instruction session. Sword Drill - Identify the sword as a symbol of command; execute sword movements at the halt; and execute sword movements on the move. Training for Officer Cadet Graduation - Conduct the training for the graduation ceremony of the Officer Cadet. Integrating Objective - Properly plan drill instruction sessions, aiming to develop cohesion and discipline (DISCIPLINE).

UNIT IV - SIPLEx, SIMEB AND MOBILIZATION - 1. SIPLEx - a. Describe the basic elements and structure of the Brazilian Army Planning System (SIPLEx). b. Identify the effects of SIPLEx on the Land Force. Instruction Safety - Apply safety standards defined in manuals and instructional directives (Annex “A” PBIM/COTER); Control and supervise high-risk activities such as live fire, explosives, combat courses, and motorized movements; manage missions and tasks assigned to oneself or one’s unit as the responsible expert; and prepare a Safety Plan. Prepare the risk management form. PBIM/COTER - Describe the basic elements and structure of the Military Instruction Basic Plan/COTER and describe the planning of Technical and Tactical Training for Professional Personnel (CTTEP). SIMOBE - Describe the concepts of mobilization and force readiness; Describe the sectors of activity covered by Military Mobilization; Describe the activities carried out in Mobilization Sections of Military Organizations; Interpret the objectives of the preparation plan and execution plan of mobilization sections; and interpret the purpose of the mobilization logbook.

UNIT V - SPECIAL INSTRUCTION - Law and Order Guarantee Operations (GLO): a. General aspects (current context and integrated security); b. Revolutionary Warfare (concept), structure of revolutionary movements, and objectives of opposing forces; c. Operations against irregular forces (Land Force mission, types of operations, operational objectives, and conditions for success); d. Legal framework (Constitution of the Federative Republic of Brazil, Military Penal Code, and Military Criminal Procedure Code); e. Define Revolutionary Warfare; f. State the simplified structure of revolutionary movements; g. Describe the objectives of opposing forces in a revolutionary movement; h. Describe the mission of the Land Force in Law and Order Guarantee Operations; i. List the types of operations conducted and their objectives in Law and Order Guarantee; j. State the conditions for success in Law and Order Guarantee Operations; l. Determine the legal basis for troop employment in Law and Order Guarantee Operations; Techniques – Interview and Interrogation: a. General aspects; b. Interview techniques; c. Interrogation techniques (preparation of the interrogator, preparation of the detainee, conduct of the interrogation, summary interrogation by the patrol commander); d. Legal framework; Describe interview techniques; Describe general interrogation techniques; and Understand the patrol commander’s summary interrogation; Operational Techniques in Rural Environment: a. General aspects; b. Operational techniques (search, ambush, waiting ambush, stalking, area saturation, night operations, raid, contact, mass operations); c. Civic-military actions (ACISO); d. Troop conduct; e. Encirclement operation; f. Encirclement during Peaceful

Area Clearance Operations and g. Legal framework - Constitution of the Federative Republic of Brazil. Describe the operational techniques employed in rural environments; state the phases of a cordon operation; list the peculiarities of a cordon operation for the peaceful clearing of an area; determine the legal basis for the employment of operational techniques; and plan the employment of the Rifle Company (SU) and platoon in the execution of rural operational techniques. Search and Seizure Operations (OBA) / Intelligence Operations (Op Intg) - a. General aspects; b. Definition; c. Influencing factors and characteristics of operations; d. Equipment employed; e. Phases of an OBA – reconnaissance, command procedures, execution, withdrawal; f. Legal framework – Constitution of the Federative Republic of Brazil, Military Penal Code (CPM), Military Criminal Procedure Code (CPPM); g. Documentation used. Define Search and Seizure Operations; state the factors that influence them and the characteristics of an OBA; describe the phases of an OBA; describe the equipment to be used in an OBA; determine the legal basis for conducting an OBA; plan an OBA; and command a platoon-sized element in the execution of a Search and Seizure Operation (OBA). Define intelligence operations; identify the types of intelligence operations; identify the factors that influence intelligence operations; and plan an intelligence operation. Roadblock and Checkpoint (PBCE) – a. General aspects; b. Definition; c. Missions of a PBCE; d. General principles; e. Likely activities of opposing forces; f. Troop organization; g. Group missions; h. Equipment employed; i. Search procedures (personnel and vehicles); j. Legal framework; k. Documentation used. Identify the missions and employment of a PBCE; recognize the organization of a PBCE; state the actions required to establish a PBCE; describe the equipment to be used in a PBCE; state search procedures for personnel and vehicles; determine the legal basis for establishing a PBCE; plan the establishment of a PBCE; and command a platoon-sized element in the establishment of a Roadblock and Checkpoint (PBCE). Defense of a Sensitive Point with the Establishment of a Static Security Post (PSE) - a. General aspects; b. Definition; c. Types of sensitive points; d. Troop organization; e. Equipment employed; f. Communications, g. Planning, h. Occupation and j. Legal framework. Identify the missions and employment of a Static Security Post (PSE); recognize the organization of a PSE; state the actions required to establish a PSE; describe the equipment to be employed in a PSE; determine the legal basis for the installation of a PSE; plan a PSE; and command a platoon-sized element in the establishment of a Static Security Post (PSE). Riot Control Operations (OCD) – a. General aspects; b. Basic concepts; c. Concept of OCD – decision factors, assigned missions, employment of the Land Force, constraints, basic principles; d. Phases of OCD; e. Organization of a riot control force; f. Supporting actions; g. Riot control force formations; h. Equipment employed; i. Employment of armored vehicles; j. Legal framework. State the main activities carried out by small-unit elements in OCD; recognize the organization of a riot control force; list riot control formations; describe the equipment used in an OCD; determine the legal basis for conducting an OCD; plan an OCD; and command a platoon-sized element in a Riot Control Operation (OCD). Operational Readiness – Carry out preparation for ceremonial and course activities in accordance with instructions contained in the course bulletin; present oneself fully equipped with all required materials and equipment for the course; prepare personal equipment and weapon according to instructions received (DEDICATION); anticipate planning or execution of tasks regardless of instructor guidance (INITIATIVE); and maintain in good condition all material and/or facilities under one's responsibility (ZEAL).

UNIT VI - OPERATIONAL SYSTEMS - Fundamentals of Operational Systems – 1. Identify the fundamentals of Operational Systems. Operational Systems in Offensive Operations – 1. Apply the fundamentals of Operational Systems by executing a Combat Simulation Exercise in an offensive operation. Operational Systems in Defensive Operations – 1. Apply the fundamentals of Operational Systems by executing a Combat Simulation Exercise in a defensive operation. Coordinated Employment of Operational Systems – 2. Apply the fundamentals of Operational Systems by executing a Combat Simulation Exercise in a dual-action activity. Integrating Objectives – Plan the employment and command a platoon-sized element in the establishment of a Roadblock and Checkpoint (PBCE); plan the employment and command a platoon-sized element in a Search and Seizure Operation (OBA); plan the employment and command a platoon-sized element in a Riot Control Operation (OCD); plan the employment and command a company- and platoon-sized element in the defense of a sensitive point, establishing a Static Security Post (PSE); plan the employment and command a platoon-sized element in an interrogation operation; Plan the employment and

command a platoon- and squad-sized element in operations against irregular forces, employing operational techniques in a rural environment and all available means (helicopters, vehicles, communications equipment, etc.); conduct landing, embarkation, and disembarkation of helicopters, and remain prepared to receive aerial or air-mobile resupply within a domestic defense scenario; plan the employment and command company- and platoon-sized elements in the execution of an encirclement operation and/or an encirclement operation for the peaceful clearance of an area; overcome difficulties arising from new facts, environments, or activities (ADAPTABILITY); face challenges with confidence in success (SELF-CONFIDENCE); actively participate in activities, contributing to group work (COOPERATION); face risk situations without hesitation (COURAGE); propose innovative solutions to emerging problems (CREATIVITY); select, with conviction, the best course of action (DECISION-MAKING); dedicate oneself thoroughly to the preparation and execution of activities (DEDICATION); distribute tasks within the group and supervise them in an appropriate and efficient manner (LEADERSHIP/DIRECTION); remain composed under stress, fatigue, or risk situations (EMOTIONAL BALANCE); adjust or modify the course of action according to new conditions, adapting planning or execution as required (FLEXIBILITY); anticipate planning or task execution independently of instructor guidance (INITIATIVE); lead with enthusiasm and fairness, asserting one's course of action through reasoning, setting an example through competence, and promoting group cohesion (LEADERSHIP); plan and execute missions in a methodical and logical sequence (ORGANIZATION); persist in task execution until the final objective is achieved (PERSISTENCE); maintain high performance despite physical and mental fatigue (RESILIENCE); accomplish missions within the established deadline, following safety standards and accepting responsibility for mistakes (RESPONSIBILITY); and maintain equipment and/or facilities under one's responsibility in good condition (CARE/ZEAL).

GROUP IV

FIRING

UNIT I - **RIFLE SHOOTING** - Rifle shooting - Perform rifle firing for MEE 14 and MEE 15. Apply range safety rules and procedures at the firing range; perform 1st echelon maintenance for shooting; apply shooting fundamentals during firing; demonstrate safety and confidence in shooting execution (SELF-CONFIDENCE); maintain composure during firing (EMOTIONAL BALANCE); and demonstrate care in handling the rifle (ZEAL).

UNIT II - **PISTOL SHOOTING** - Pistol shooting - Perform pistol firing for MEE 10 and MEE 11; apply range safety rules and procedures at the firing range; perform 1st echelon maintenance for shooting; apply shooting fundamentals during firing; demonstrate safety and confidence in shooting execution (SELF-CONFIDENCE); maintain composure during firing (EMOTIONAL BALANCE); and demonstrate care in handling the pistol (ZEAL).

UNIT III - **FIRING INSTRUCTOR IN TROOP UNITS** - Basic shooting documentation - Identify regulatory documents related to range safety; identify regulatory documents related to ammunition allocation; identify regulatory documents related to individual weapon shooting in the Brazilian Army; and prepare shooting record documents. Shooting instruction – Describe general aspects of shooting instruction; establish common measures to be observed during shooting instruction; list the firing exercises to be performed by different personnel of a subunit; analyze results and correct shooter errors; and conclude, after weapon inspection, on its readiness for firing as well as its 1st echelon maintenance level. Conduct a shooting instruction period (SIP); conduct a firing session; and demonstrate safety and confidence in conducting a SIP and a firing session (SELF-CONFIDENCE).

I certify that the subjects listed above are included in the Curriculum Plan (PLADIS) of the Higher Basic Education course of the Agulhas Negras Military Academy.

Resende Garrison, RJ, September 24, 2025.

MARCUS VINICIUS CAMPOS SIQUEIRA:07440822420

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MARCUS VINÍCIUS CAMPOS SIQUEIRA - Major
Secretary of the Education Division

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



_____ Date: April 28, 2026.

EMENTAS DE DISCIPLINAS DO ENSINO SUPERIOR

- GEOMETRIA DESCRITIVA

UN I - ELEMENTOS FUNDAMENTAIS - sistemas de projeções. Conhecer os sistemas de projeções existentes, indicando e descrevendo os usados na AMAN; sistema bi-projetivo. Elementos fundamentais. Resolver em epura problemas relativos a ponto, reta e plano; resolver em epura problemas de interseção (reta e planos); resolver em epura problemas de paralelismo e perpendiculares entre retas e plano; resolver problemas em epura sobre métodos descritivos (mudança de plano, rotação e rebatimento); revisar os conhecimentos apresentados na UN I**.**

UN II - HOMOLOGIA E FIGURAS PLANAS - sistemas de homologia. Sintetizar em epura os elementos de um sistema homologo e de afinidades; figuras planas: resolver em epura problemas de figuras planas, polígonos, circunferências, pelo emprego de métodos descritivos e de homologia; revisar os conhecimentos apresentados na UN II.

UN III - PROBLEMAS DE MEDIÇÃO - distância entre ponto e plano. Resolver em epura problemas de distância entre dois pontos, ponto e reta, ponto e plano, e entre dois planos. Ângulos, resolver em epura problemas de ângulo entre duas retas, de reta como plano e entre planos; revisar os conhecimentos apresentados na UN III.

UN IV - POLIEDROS - Representação de poliedros: resolver em epura problemas de representação e visibilidade dos poliedros convexos regulares e irregulares (pirâmides, prisma, tetraedro e hexaedros regulares); seções planas. Resolver em epura problemas de seções planas no poliedro convexo; revisão dos conhecimentos apresentados na UN IV.

UN V - CORPOS REDONDOS - superfícies cônicas e cilíndricas. Planos tangentes, representação de cone e cilindro, cone de revolução, seções planas, esfera, interseção e planos tangentes. Resolver em epura problemas fundamentais de construção de superfícies cônicas e cilíndricas; resolver em epura problemas relativos a representação do cone e cilindro; resolver em epura problemas relativos ao cone como superfície auxiliar; resolver em epura problemas relativos a determinação da seção plana na superfície cônica; resolver em epura problemas relativos a representação da esfera; resolver em epura problemas relativos a interseção de reta e plano com a esfera e plano tangente; revisar os conhecimentos apresentados na UN V.

UN VI - GEOMETRIA COTADA - elementos fundamentais. Paralelismo e perpendicularidade; distância e interseções; ângulos; figuras planas; superfícies topográficas. Conhecer os elementos fundamentais e representar e epura, ponto, reta e plano; resolver em epura problemas relativos a paralelismo e perpendicularidade; resolver em epura problemas relativos a distancias e interseções; resolver em epura problemas relativos a figuras planas; resolver em epura problemas relativos a ângulos; integrar conhecimentos e informações de geometria cotada e aplicar no estudo da topografia militar; revisar conhecimentos apresentados na UN VI.

UN VII - PERSPECTIVA - elementos fundamentais da perspectiva cônica. Perspectiva de elevação. Perspectiva cavaleira. Conhecer elementos fundamentais de perspectiva cônica e resolver problemas em epura relativos a ponto, reta e figuras planas no geometral; resolver em epura problemas de perspectiva elevada de ponto, reta, figuras planas e sólidos geométricos; conhecer elementos da perspectiva cavaleira e resolver em epura problemas de ponto, reta e figuras planas; resolver em epura problemas relativos a perspectiva cavaleiras de pontos elevados a sólidos geométricos, estabelecendo normas atinentes ao Desenho técnico; revisar conhecimentos apresentados na UN VII.

- ESTATÍSTICA

UN I - ESTATÍSTICA DESCRITIVA - Objetivo da estatística, afinidades com o cálculo de probabilidade, universo, população e amostra. O levantamento estatístico, apuração e apresentação, série estatísticas.

UN II - ESTATÍSTICA MILITAR - A estatística no âmbito das Forças Armadas, particularmente no Exército, legislação específica.

UN III - DISTRIBUIÇÃO DE FREQUÊNCIAS - Definições fundamentais, organização da distribuição de freqüências, representação gráfica da distribuição de freqüências, histogramas, polígono de freqüências, ogivograma. Características de uma distribuição de freqüências. Momentos, conceituação em estatística, tipos, relações entre eles, índices estatísticos calcados em momentos, medidas de posição, de dispersão, de assimetria e de curtose.

UN IV - TEORIA ELEMENTAR DA PROBABILIDADE - Conceituação de probabilidade. Espaço amostral de um experimento. Eventos simples, associação de eventos, eventos dependentes, eventos

independentes. Probabilidade condicional, probabilidades da união de eventos, probabilidade da interseção de eventos.

UN V - DISTRIBUIÇÃO DE PROBABILIDADE - Variáveis aleatórias do tipo discreto. Variáveis aleatórias do tipo contínuo. Distribuição binominal. Distribuição de posson. Distribuição normal. Distribuição do quiquadrado.

UN VI - AMOSTRAGEM - Conceitos básicos, técnicas de amostragem. Amostragem aleatória simples, distribuição amostrais.

UN VII - CONTROLE ESTATÍSTICO DE QUALIDADE - Conceito seguido de traços históricos completos e inspeção por amostragem. Inspeção por atributos e por variáveis atribuíveis. Unidade do produto ou artigo. Especificação do produto. Classificação dos defeitos. Níveis de qualidade. Riscos do produtor e do consumidor. Distribuição amostral dos defeituosos. Aplicações das distribuições amostrais, hipergeométrica, binominal e de poisson. Construção dos diagramas de controle. Análise de diagramas, regras para detecção de causas atribuíveis.

UN VIII - CORRELAÇÃO - Correlação linear e não linear, correlação simples e múltipla, correlação parcial, diagrama de correlação. Medidas de correlação. Equação de avaliação, cálculo prático da equação de avaliação. Erro padrão de avaliação. Calculação. Coeficiente de correlação. Calculação do coeficiente de Pearson. Calculação do coeficiente de correlação de dados grupados.

UN IX - NÚMEROS ÍNDICES - Generalidades sobre números índices, classificação. Número índice agregativo simples. Índice em cadeia. Números índices simples, aritmético, geométrico, harmônico, mediano, números índices ponderados. Lavapayres. Paashe. Drobish. Edworth. Marshall. Índice ideal de Fisher. Testes matemáticos para aceitação dos números índices. Deflacionamento de séries de números índices. Número índice de preços ao consumidor (custo de vida).

- MATEMÁTICA

UN I - ÁLGEBRA - abertura do curso. Coordenadas retangulares no R2. Equação e lugar geométrico. Linha reta, circunferência, álgebra vetorial, cônicas. Motivar inicialmente para o estudo da matéria; iniciar o cadete na resolução de problemas simples de lugares geométricos; habilitar o cadete a reconhecer e construir uma reta, circunferência ou uma cônica; introduzir o calculo vetorial na solução de problema geométricos; estabelecer a equação e construir uma cônica de eixos coordenados.

UN II - CÁLCULO DIFERENCIAL - Limites e continuidade, regras de derivação, aplicações da derivada, derivação sucessiva e aplicações. Funções transcendentes, derivação das equações paramétricas. Diferenciais. Compreender o conceito de função e das noções de limite e continuidade; compreender os conceitos de funções contínuas; aprender e desenvolver a técnica de operações com limites; compreender as noções de derivadas, com suas interpretações geométricas e físicas; aplicar o cálculo as funções transcendentes e paramétricas; introduzir o conceito de diferencial visando a integração.

UN III - CÁLCULO INTEGRAL - integrais imediatas. Métodos de integração. Determinação da constante de integração. Integral definida. Áreas. Integrais impróprias. Integral como processo de soma. Áreas planas. Coordenadas polares. Áreas em coordenadas polares. Volume dos sólidos de revolução. Objetivos dos assuntos: compreender o conceito de integral indefinida; apreender e desenvolver a técnica da integração; compreender os significados geométrico e físico da constante de integração; aplicar o cálculo integral no cálculo de áreas; estender o conceito de integral as funções descontinuas pelas integrais impróprias; aprender o conceito de integral como limite de uma soma; aplicar o cálculo em coordenadas polares; determinar o volume dos sólidos em revolução.

UN IV - GEOMETRIA ANALÍTICA - transformação de coordenadas. Estudo sumário das cônicas. Reta R3. Planos. Superfícies quadricas. Objetivos dos assuntos: habilitar o cadete a simplificar uma equação pela transformação de coordenadas; estudar as cônicas com os eixos em quaisquer posições; identificar retas e planos no espaço a três dimensões; aplicar os conhecimentos adquiridos no R3 para o estudo das superfícies quadricas.

UN V - FUNÇÕES DE VÁRIAS VARIÁVEIS - funções de várias variáveis. Derivada parcial. Diferencial total. Derivadas das funções implícitas. Derivada parcial de ordem superior. Objetivos dos assuntos: habilitar o cadete em derivar funções de mais de uma variável; estabelecer as diferenciais parciais e totais; estender as derivadas parciais às funções implícitas; derivar sucessivamente funções de várias variáveis.

UN VI - EQUAÇÕES DIFERENCIAIS - definições. Equações diferenciais de 1º grau. Equações diferenciais de 2ª ordem com coeficiente constante. Objetivos dos Assuntos: mostrar os diferentes tipos de equações diferenciais que são encontradas nas diferentes disciplinas que utilizam o cálculo; habilitar o

cadete na resolução de equações diferenciais mais comumente encontradas na Física, Mecânica e Eletricidade.

- MECÂNICA

UN I - FUNDAMENTOS BÁSICOS - Princípios e conceitos fundamentais. Definir grandezas básicas e derivadas, empregar os sistemas de unidade, empregar a notação científica dentro da precisão determinada. Vetores - definir grandezas básicas e derivadas, empregar os sistemas de unidade, empregar a notação cientifica dentro da precisão determinada. Definir grandeza vetorial e vetor, adicionar ou subtrair, graficamente e analiticamente, sistemas de vetores. Forças - conceituar força e vetor força, calcular o momento de uma força e de um sistema de forças, calcular a resultante de um sistema de forças.

UN II - ESTÁTICA DOS CORPOS RÍGIDOS - Conceitos fundamentais. Aplicar as grandezas, definições, princípios e condições associadas com a análise de equilíbrio. Aplicar o método geral, estática para análise do equilíbrio, analisar o equilíbrio de sistemas estáticos simples. Vínculos e Reações - Aplicar o método geral de estática para análise do equilíbrio, analisar o equilíbrio de sistemas estáticos simples. Atrito: analisar o equilíbrio de sistemas estáticos em que intervenham forças de atrito, manifestados nas formas de atrito de deslizamento ou de atrito em correias e cabos.

UN III - CINEMÁTICA - cinemática do ponto: identificar as grandezas cinemáticas e suas expressões em coordenadas retangulares, polares ou cilíndricas; identificar a ocorrência da aceleração centrípeta. Cinemática dos Corpos Rígidos: analisar o campo de velocidade em um corpo rígido em movimento simples: translação, rotação, movimento plano; analisar o campo de aceleração em um corpo rígido em movimento simples: translação, rotação, movimento plano.

UN IV - DINÂMICA DO PONTO MATERIAL - lei de Newton: analisar o movimento de um sistema de pontos materiais mediante a aplicação dos conceitos e princípios energéticos da mecânica. Impulsão e quantidade de movimentos: analisar o movimento de um sistema de pontos materiais mediante a aplicação dos conceitos e princípios associados a impulsão de uma força e a quantidade de movimento. Impulsão angular e momento cinético: analisar o movimento de um sistema material mediante a aplicação dos conceitos e princípios associados a impulsão angular e ao momento cinético. Aplicações: Aplicar os conceitos e leis gerais da dinâmica a análise de exemplos de natureza prática.

UN V - DINÂMICA DOS CORPOS RÍGIDOS - translação e rotação: analisar os movimentos de translação e rotação a luz das leis gerais da dinâmica. Rolamento: analisar o movimento de rolamento a luz das leis gerais da dinâmica**.**

- REDAÇÃO E ESTILÍSTICA

UN I - A FRASE - teoria da frase. Conhecer os vários tipos de frase. Exercício do emprego dos vários tipos de frase. Exercício do emprego dos vários tipos de frase. Dominar os vários tipos de frase através de exercícios escritos.

UN II - O PARÁGRAFO - o parágrafo como unidade de composição, sua importância. Conhecer a importância estilística dos tipos de parágrafo. Exercício de emprego do parágrafo. Dominar a construção do parágrafo e a sua exata extensão.

UN III - COMO CRIAR IDÉIAS - a leitura: sua dinâmica. Selecionar e ordenar as idéias colhidas através de uma leitura. A prática da leitura. Exercitar a prática do domínio da arte de coletar e selecionar as idéias**.**

UN IV - PLANEJAMENTO E DESENCADEAMENTO DA REDAÇÃO - teoria da redação, tipologia. Conhecer os principais tipos de discussão e sua caracterização. A argumentação, o plano e o roteiro da redação. Exercitar a técnica redacional através do planejamento da criação. Exercícios. A prática dos vários tipos de redação. Dominar o discurso escrito e suas formas.

UN V - ESTUDO DA OBRA DE FICÇÃO - leitura de obra de ficção. Habilitar a leitura, formar hábito de leitura, interpretar o texto lido.

UN VI - TEORIA E PRÁTICA DA LEITURA - teoria da leitura. Adquirir metodologia e técnica de leitura, prática da leitura. Formar hábito de leitura selecionada; desenvolver atitudes favoráveis a boa solução.

- FÍSICA

UN I - FÍSICA NUCLEAR - histórico e lembrança de conceitos fundamentais. Estrutura quântica da luz e da eletricidade. Efeitos foto-elétrico. Raio X. Estrutura nuclear. Radioatividade artificial Reações de fusão e fusão nuclear. Reações em cadeia em reatores e bombas. Riscos de radiações, detenção e condutores de radiações. Medidas de caimento radioativo, absorção.

UN II - CIRCUITOS ELÉTRICOS E CORRENTES CONTÍNUAS - constituição da matéria, cargas elétricas. Condutores elétricos. Resistência elétrica. Leis de OHM, de JOULE e KIRCHOFF. Cálculos de circuítos de corrente contínua.
UN III - ELETROMAGNETISMO - imãs permanentes. Campo eletromagnético e suas leis. Indutância. Efeitos transitórios em circuítos indutivos. Força eletro motriz induzida.
UN IV - CORRENTES ALTERNADAS: grandezas. Representação das grandezas usuais no cálculo dos circuítos. Circuítos RCL. Ressonância, cargas trifásicas equilibradas.
UN V - RENDIMENTOS SOBRE MÁQUINAS ELÉTRICAS - máquinas de corrente contínua, máquinas de corrente alternada. Transformadores.
UN VI - COMPONENTES E TRANSISTORES - resistores, indutores e capacitores. Emissão eletrônica. Válvula a vácuo, diodo. Fundamentos do transistor. Retificadores, filtragem. Triodo.
UN VII - CIRCUITOS FUNDAMENTAIS - configuração, polarização e estabilização do transistor. Simplificadores de tensão.
UN VIII - RÁDIO RECEPÇÃO - Tradutores. Válvulas multieletródicas; amplificadores de potência. Circuito ressonante. Amplificador de rádio freqüência. Modulação AM, oscilador. Receptor superneterodino.
UN IX - ACÚSTICA - Movimento ondulatório, ondulações transversais em uma corda, variação de pressão em uma onda sonora. Vibração de cordas e colunas de ar, ondas estacionárias, cordas fixas em ambas as extremidades, batimentos. Cordas sonoras, ouvido e audição, intensidade, efeito DOPLLER, reflexão, refração e difração do som.
UN X - ÓTICA - natureza e velocidade da luz, superfície de onda e princípio de HUYGENS, índice de refração e comprimento de onda. Leis da reflexão e da refração em superfícies planas, reflexão total. Polarização da luz, polarização por reflexão, lei de BREWSTER, polarização por dupla refração, polarização percentual, lei de Malus. Interferência: interferências em película, anéis de Newton, experiência da fenda dupla de YOUNG. Difração: conceito de interferência estendido a difração, difração de FRAUNHOFFER por uma fenda retangular, difração de FRESNELL por orifício circular.
UN XI - PROPRIEDADES TERMODINÂMICAS E ENERGÉTICAS - introdução, substância de trabalho. Sistema, substância pura, fases, propriedades e estado. Volume específico e densidade, peso específico e pressão dos fluídos, pressão, processos, ciclos. Energia interna, trabalho num sistema sem escoamento; calor; trabalho de escoamento; outras formas de energia. Sistemas fechados e sistemas abertos, conservação da energia (1º princípio), degradação da energia (2º princípio), equação da energia com fluxo permanente, equação da energia para sistemas. Entalpia. Reversibilidade, calor específico, calor específico e volume constante, calor específico a pressão constante. Entropia, plano TS, integral de PDV nos processos reversíveis, calor específico molar.
UN XII - PROCESSOS TERMODINÂMICOS - lei de BOYLE, lei de CHARLES, equação e estudo, a constante dos gases, lei de AVOGARDO, constante universal dos gases. Energia interna de um gás perfeito, entalpia de um gás perfeito, relação de MEYERS. Processo a volume constante, processo a pressão constante, processo isotérmico. Processo isotrópico, taxas de expansão e compressão, razão das pressões. Processo politrópico, efeito da variação de N nas equações politrópicas.
UN XIII - ANÁLISE TÉRMICA E ANÁLISE DOS CICLOS - Ciclo de CARNOT, PME, ciclo de CARNOT de um gás perfeito, medida de trabalho, diagrama indicador. Diagrama indicador para um compressor, volume ou espaço morto e taxa de espaço morto. Capacidade e rendimento volumétrico. Ciclo de quatro tempos, ciclo OTTO, diagrama real para um motor OTTO, ciclo Diesel, comparação com o ciclo OTTO, ciclo de dois tempos, ciclo de combustão dual. Operação de uma usina de turbina a gás simples, ciclo BRAYTON, propulsão a jato.

- INFORMÁTICA
UN I - INTRODUÇÃO - Computador digital, unidades funcionais básicas de um computador: unidades de entrada e armazenamento; UCP e unidades de saída. As instruções e o programa do computador: representação de informações.
UN II - FORTRAN BÁSICO - Objetivos específicos da unidade: definir compilador; distinguir programa-fonte de programa objeto; identificar o conjunto de caracteres; distinguir número inteiro de real; distinguir constante de variável em FORTRAN; definir declaração aritmética; identificar declaração aritmética; aplicar declaração aritmética; distinguir as declarações STOP e END; identificar títulos e linhas de comentário; definir as declarações de entrada e saída; aplicar as declarações de entrada e saída: definir métodos descritivos; preencher uma folha de codificação FORTRAN; definir as declarações de controle GO, TO e IF; aplicar as declarações de controle GO, TO e IF; distinguir GO TO de GO TO controlado; definir

variáveis subscritas ou indexadas; distinguir variável subscrita de variável simples; aplicar a declaração DIMENSION; identificar as formas permissíveis de subscritos; distinguir entrada de conjuntos e entrada simples; distinguir saída de conjunto de saída simples; aplicar entrada e saída de conjuntos; identificar os símbolos num fluxogramas; desenvolver o raciocínio lógico na solução de um problema para o computador; confeccionar fluxogramas; encerrar programas; definir a declaração DO; aplicar a declaração DO; concluir que declaração CONTINUE esta associada a declaração DO; utilizar a técnica de trilhamento. Introdução. O compilador, programas-fonte e programa-objeto. O conjunto básico de declaração FORTRAN. O conjunto de caracteres. Dados numéricos. Números de tipo inteiro. Números de tipo real. Constantes e variáveis. Nome das variáveis e tipos de variáveis. Expressões em FORTRAN. Modos das expressões e funções pré-definidas; Declaração Aritmética. Declaração STOP e END. Títulos e linhas de comentário. Fluxogramas: símbolos. Etapas para a solução de um problema. Técnicas de confecção de fluxograma. Programas repetitivos. Técnicas de encerramento de programas. Declaração de Entrada (READ) e de saída (WRITE). Declaração FORMAT simplificada. Métodos Descritivos. Folha de codificação FORTRAN. Código de cartão e declarações de controle. GO TO e IF. Condições compostas. Declaração GO TO controlada. Conjuntos. Variáveis subscritas ou indexadas. Declaração DIMENSION. Formas permissíveis de subscritos. ENTRADA de conjuntos simplificada. SAÍDA de conjuntos simplificada. O comando Interativo - Declaração GO. Lista de Regras Associadas com a Declaração DO. A declaração CONTINUE. Técnica de trilhamento.

UN III - ENTRADA E SAÍDA - Introdução. Equipamentos de ENTRADA e SAÍDA. Conceito Básico e ordem lógica. Declarações READ e WRITE. Flexibilidade das declarações E/S. A especificação “I” de código de formato “I”. A especificação “F” ou código de formato “F”. A especificação “E” ou código de formato “E”. A especificação “H” e dados literais entre apóstrofos. Controle das impressoras. A especificação “A” ou código de formato “A”. A especificação “X” ou código de formato “X”. Outras flexibilidades das declarações - FORMAT. FITA MAGNÉTICA - ENTRADA E SAÍDA. Entrada e Saída em Discos-Magnéticos.

UN IV - SUBPROGRAMAS, FUNÇÕES E SUB-ROTINAS - Introdução. Subprogramas em FORTRAN. Subprogramas de funções pré-definidas. Subprogramas de funções, declaração e sua aplicação. Subprogramas função e sua aplicação. Subprogramas, subrotina e sua aplicação. A declaração EXTERNAL e sua aplicação.

UN V - EXTENSÕES DE FORTRAN - As declarações de especificação. As declarações REAL E INTEGER. As declarações DATA E COMPLEX. Declarações DOUBLE PRECISION E LOGICAL. Declaração EQUIVALENCE. As declarações COMMON.

UN VI - APLICAÇÕES DO FORTRAN - Cálculo de volume de tanques de gasolina. Cálculo de área de um aquartelamento. Controle de estoque.

- QUÍMICA

UN I - NOTAÇÃO E NOMENCLATURA DA QUÍMICA MINERAL - (Revisão). Oxidação e redução (Revisão): exercícios sobre notação e nomenclatura com o emprego da tabela distribuída. oxidação e redução; revisão dos conhecimentos sobre ox-redução e ajustagem de equações. Realização de trabalho prático.

UN II - QUÍMICA DOS ELEMENTOS NÃO METÁLICOS - Hidrogênio: obtenção industrial do hidrogênio; demonstração em laboratório dos processos de obtenção e de suas principais propriedades; realização de trabalho de laboratório. Cloro e gases de combate. Importância militar (gases de combate), obtenção e outros empregos; demonstração de propriedades e preparação do gás. Realização de trabalho de laboratório. Oxigênio e ozônio; importância militar (comburente dos engenhos autopropulsados). Obtenção e outros empregos. Demonstração de preparação e das propriedades mais importantes. Realização de trabalho prático. Ácido sulfúrico e ácido nítrico; preparações usadas nas fábricas militares e aplicações; demonstrações de suas propriedades; realização de trabalho prático. Carbono. Monóxido de dióxido de Carbono; variedades alotrópicas do carbono; variedades de carvões (destacando a hulha, coque e carvão vegetal); estudo comparativo do monóxido e dióxido de carbono; demonstração de suas principais propriedades. Trabalho de laboratório.

UN III - QUÍMICA ORGÂNICA - assuntos de revisão, fundamentos, classificação das funções, fórmulas gerais, grupos sancionais. séries e radicais mais importantes; exercícios. Isometria. Identificação dos diversos tipos de isômeros. Hidrocarbonetos; estudo particular do metano, etileno e acetileno; cálculos estequiométricos. Demonstrações e trabalho de laboratório. Hidrocarbonetos cíclicos, benzeno, tolueno e seus hidrocompostos; cálculos estequiométricos; demonstrações e trabalho de laboratório. Petróleo: origem,

prospecção, extração, refinação, transporte e octanagem, Aditivos e gasolina artificial. Álcoois Metanol e etanol. Cálculos estequiométricos. Glicerina e nitroglicerina; propriedades e usos. Glucídios, sacarose, celulose, nitroceluloses e pólvoras.
UN IV - TERMOQUÍMICA - decomposição dos Explosivos; classificação dos explosivos, equações de decomposição, cálculos estequiométricos.
UN V - METALÚRGICA- metalurgia gusa e aço, processos e fornos metalúrgicos, gusa, aço.
UN VI - RADIOATIVIDADE - radioatividade natura e artificial.

- REDAÇÃO E ESTILÍSTICA
UN I - A FRASE - apresentação da matéria, designação dos objetivos, estrutura sintática da frase, frase, período, oração. Feição estilística da frase, tipos de frase, emprego das principais figuras, exercícios de emprego da frase.
UN II - O PARÁGRAFO - O parágrafo como unidade de composição. O parágrafo padrão. Importância do parágrafo, extensão do parágrafo. Exercícios, exercícios de emprego do parágrafo.
UN III - COMO CRIAR IDÉIAS - leitura (concatenação desta UD como trabalho efetuado no 1º Ano). Pesquisa bibliográfica e exercícios.
UN IV - PLANEJAMENTO E DESENCADEAMENTO DA REDAÇÃO - descrição, narração, dissertação, exercícios com texto e sem ele, argumentação, exercícios; o plano e o roteiro; redação técnica, exercícios.
UN V - LEITURA E INTERPRETAÇÃO DE OBRA DE FICÇÃO - leitura e interpretação de “Serras Azuis”, de G. F. de Lima; leitura e interpretação de “A Ferro e Fogo”, de Josué Guimarães; Leitura e interpretação de “ÁGUA-MÃE”, de J. Lins do Rego; Leitura e interpretação de “Chapadão do Bugre”, de M. Palmiere; Leitura e interpretação de “Incidente em Antares”, de Érico Veríssimo”.

- TOPOGRAFIA
UN I - PRELIMINARES - Generalidades da Topografia - Finalidade da Topografia. Problema geral da Topografia. Forma da Terra. Elementos da elipsóide terrestre. Altitude. Coordenadas geográficas, planos retangulares e polares. Representação das Cartas do Brasil no sistema UTM. Azimute plano ou lançamento. Azimute verdadeiro. Convergência de meridianos. Relação entre azimute plano e verdadeiro. Magnetismo terrestre. Declinação Magnética. Azimute magnético. Rumo magnético. Atualização do rumo e do azimute magnético. Relação entre as três direções (Norte de Quadrícula, Norte verdadeiro e Norte Magnético). Plano Cartográfico Brasileiro. Índice de nomenclatura das Cartas Geográficas e Topográficas**.**
UN II - MEDIÇÃO E CÁLCULO DE ÂNGULOS - generalidades. Ângulos horizontais e verticais, definições, medições e processos de obtenção. Apresentação do teodolito e da caderneta de campo. Prática instrumental com o teodolito e o preenchimento da caderneta de campo.
UN III - MEDIÇÃO E CÁLCULO DE DISTÂNCIAS - Diametria. Estadimetria. Prática instrumental com o teodolito.
UN IV - NIVELAMENTO - Generalidades, superfície de nível, esfericidade e refração terrestre, classificação geral dos nivelamentos, sinais topográficos e geográficos. Nivelamento trigonométrico. Nivelamento geométrico linear e irradiado.
UN V - AZIMUTE - Determinação analítica do azimute plano e da distância entre dois pontos de coordenadas conhecidas. Transporte de coordenadas.
UN VI - MÉTODOS CLÁSSICOS DE LEVANTAMENTOS - generalidades sobre os métodos. Radiamento. Poligonação. Métodos de interseção, generalidades. Triangulação simples. Interseção avante. Interseção lateral.
UN VII - AVALIAÇÃO DE ÁREAS - processo geométrico. Processo mecânico. Processo analítico.

- ECONOMIA E FINANÇAS
UN I - AS DOUTRINAS ECONÔMICAS - O Mercantilismo. A Escola Fisiocrática. A Escola Clássica. O Socialismo. As Escolas Neoliberais.
UN II - OS FUNDAMENTOS DO PROBLEMA ECONÔMICO - Alguns aspectos do conhecimento econômico. Definição, objetivo e método de investigação. As bases demográficas da atividade econômica. Capital, tecnologia e recursos naturais. Introdução ao problema econômico. A escassez, as opções básicas e seus problemas. O que, como, quanto e para quem produzir. Os elementos básicos dos sistemas econômicos. Organização da Atividade Econômica e a dinâmica dos sistemas de livre empresa. A presença do Estado nos sistemas de livre empresa.

UN III - A MOEDA E OS PREÇOS - A moeda, a oferta e a procura. A elasticidade, a receita total. Inflação e Deflação. O sistema bancário e a criação de depósitos. O Sistema Financeiro Nacional.
UN IV - A FUNÇÃO ECONÔMICO FINANCEIRA DO ESTADO - Serviços Públicos Gerais e Especiais. A Despesa Pública. A Despesa Pública no Brasil. Receita Pública: definição e classificação. Receita Pública Brasileira. Impostos, taxas e contribuição de melhoria: conceito e distinção. As máximas de imposto. A competência tributária no Brasil. Efeito dos impostos. Impostos Pessoais. O imposto de Renda. Imposto de Renda no Brasil. O Crédito e Orçamento Público.
UN V - A CONTABILIDADE NACIONAL - Introdução ao estudo do Produto Nacional. Conceito e Cálculo de Produto Nacional. As contas Nacionais. As contas Nacionais no Brasil.
UN VI - O COMÉRCIO INTERNACIONAL - Comércio Internacional: aspectos gerais. Comércio Internacional: Teoria das Vantagens Comparativas. Comércio Internacional: o Balanço de Pagamentos.
UN VII - O EQUILÍBRIO E AS FLUTUAÇÕES DA ATIVIDADE ECONÔMICA - Teoria Clássica e Keynesiana. Renda, Consumo e Investimento. O Equilíbrio da Atividade Econômica. O Investimento, a Renda e os hiatos. O Investimento, o consumo e as flutuações.
UN VIII - O DESENVOLVIMENTO ECONÔMICO - A Teoria do Desenvolvimento Econômico. Teoria do Planejamento.

- FILOSOFIA
UN I - INTRODUÇÃO A FILOSOFIA E ÉTICA – Filosofia - Necessidade Fim. Breve histórico da Filosofia. A consciência Moral. Posição de Problema Moral. As Grandes Concepções da Vida Moral. Morais do Interesse, do Sentimento e do Dever. A Experiência Moral. A Responsabilidade, o Bem e o Mal. Noção Filosófica de Pessoa. As Relações entre as Pessoas.
UN II - INTRODUÇÃO À LÓGICA - Introdução ao estudo da lógica. Dedução. Indução A Noção de Virtude. A Justiça e o Respeito pela Pessoa: A Caridade. Introdução as Ideologias Políticas. Democracia. Socialismo. Marx - Engels - Lenine. Comunismo. A Sociedade. Problemas Familiares, Problemas e Doutrinas Políticas. Idéia de Civilização.

- HISTÓRIA MILITAR
UN I - FUNDAMENTOS DA ARTE DE GUERRA - Introdução a História Militar. Elementos Fundamentais. Princípios de Guerra. Manobra.
UN II - EVOLUÇÃO DA ARTE DA GUERRA NAS IDADES ANTIGA, MÉDIA E MODERNA - Idade Antiga: Organização Militar Grega. Idade Antiga: Batalha de Leuctras. Idade Antiga: Alexandre; Instituições Militares. Idade Antiga; Batalha de Arbelas. Idade Antiga: Instituições Militares de Roma. Idade Antiga: Instituições Militares Cartaginesas; Batalha de Canas. Idade Média: Carlos Magno e o Feudalismo. Instituições Militares dos Mongóis: Gengis Khan; Últimos tempos da Idade Média. Idade Moderna: Gustavo Adolfo - Sec. XVI e XVII. Idade Moderna: Sec. XVIII - Frederico II. Idade Moderna - Batalha de Leuthen.
UN III - EVOLUÇÃO DA ARTE DA GUERRA NA IDADE CONTEMPORÂNEA - (Sec XIX) - Revolução Francesa. Período Napoleônico. Batalha de Austerlitz. Doutrina Militar do Sec. XIX; Revolução Industrial; Clausewitz. Guerra da Secessão; Batalha de Gettysburg. Guerra Franco-Prussiana; Batalha de Sedan.
UN IV - HISTÓRIA MILITAR DO BRASIL - Invasões Holandesas; Batalhas dos Guararapes. Guerra da Cisplatina; Batalha de Passo do Rosário (Ituzaingo). Lutas Internas da Regência; Ação de Caxias. Guerra da Tríplice Aliança; Batalha de TUIUTI. Guerra da Tríplice Aliança: Manobras de Humaitá e Piquiciri. Guerra da Tríplice Aliança: "A Dezembrada". Guerra da Tríplice Aliança: Campanha da Cordilheira e Perseguição a Lopez. Campanha de Canudos e Contestado. Revolução Federalista de 1893. Revoluções de 1922, 1924, 1930 e 1932. Intentona Comunista de 1935. Levante Integralista de 1938 e evolução política do país do "Estado Novo" até 1961. Revolução de 31 Mar 64. A FEB na Itália: Antecedentes e 1ª Fase (Vale do Rio Serchio). A FEB na Itália: 2ª Fase (Vale do Reno) - Batalha de Monte Castelo. A FEB na Itália: 3ª Fase (Vale do Panaro). Batalha de Montese - 4ª Fase (Vale do Po). Ações da FEB na Itália (síntese) e Conclusões Finais.
UN V - EVOLUÇÃO DA GUERRA NA IDADE CONTEMPORÂNEA (SEC XX) - Guerra dos Boers e Russo - Japonesa; Batalha de Mukden. Período anterior a I G M; Antecedentes da I G M. I G M: T O da Europa; Batalhas de Cambrai e Tannemberg. I G M: T O dos Balcãs e do Oriente Médio. Consequências da I G M; Período Entre-Guerras. Guerra Civil Espanhola; antecedentes da II GM. II GM - T O da Europa Ocidental. II GM - T O da Europa Oriental; Batalha de Stalingrado. II GM - T O do Mediterraneo; Batalhas de Alam-Halfa e E1 Alamein. II GM: T O da Ásia, do Pacífico e do Atlântico. Consequências da II GM. Guerra da Coréia. Guerra do Vietnã. Conflitos Árabe-Israelenses. Conflito das Malvinas.

INGLÊS

NÍVEL BÁSICO I

UN I - BOOK ONE - English for cadets of AMAN. Estudo de idioma para aprendizado de estruturas e vocabulário de cerca de duas mil e quinhentas palavras. LIÇÃO UM: Introduction of the present tense of Verb TO BE (This, Is, It, Is) (affirmative, Interrogative and contracted forms); Commands (Imperative) - Numbers - (Interrogative, Pronoun WHAT; Demonstrative Pronoun THIS: The Present Tense of the verb TO BE (I AM, YOU ARE, HE IS,) (affirmative, interrogative, and contracted forms); Demonstrative Pronoun THAT - Interrogative Pronoun WHO - Ordinal Numbers (1st, 2nd). LIÇÃO DOIS: Possessive Adjectives (MY, YOUR, OUR); Possessive Case; ordinal Number (3rd). LIÇÃO TRÊS: The Present Tense of The verb TO BE (we are, you are) (pl). (they are) affirmative, interrogative and contracted forms; Where, Possessive Adjective your (pl) Here There, Over there. LIÇÃO QUATRO: The Present of the verb TO BE (negative and negative contracted forms); Possessive Adjectives (HIS, her, their); Personal Pronoun SHE; Interrogative Adjectives (HIS, HER, THEIR) Personal Pronoun SHE Interrogative WHOSE. LIÇÃO CINCO: THERE IS and THERE ARE (affirmative and interrogative forms); Colors HOW MANY; Interrogative Pronoun WHICH; Ordinal Numbers (4th, 5th, 6th and 7th). LIÇÃO SEIS: THERE IS and THERE ARE (negative form); Demonstrative Pronouns THESE and THOUSE; SOME and NO. LIÇÃO SETE: Introduction Of the Present Continuous TENSE (affirmative, interrogative, contracted, and negative contracted forms); TIME; Number Onze. LIÇÃO OITO: HAVE (affirmative form; interrogative and negative forms with DO); DATE; Ordinal Number 8th; Number doze. LIÇÃO NOVE: THE Present Tense of the verb TO HAVE (HAS, Interrogative, negative and negative contracted forms with DO and DOES); TIME (minutes after); Number form treze, to vinte. LIÇÃO DEZ: The Present Tense Of Regular and Irregular Verbs (affirmative, interrogative, negative and negative contracted forms With DO); Ordinal Number 9th HOW MUCH; Colors; Numbers; LIÇÃO ONZE: The Present Tense Of Regular Irregular Verbs (affirmative, interrogative, negative and negative contracted forms With DO and DOES); Adverbs or Frequency (GENERALLY, USUALLY, SOMETIMES); TIME (minutes past). LIÇÃO DOZE: The Present Tense of Regular and Irregular Verbs (continue) WHEN; Adverbs of Frequency (ALWAYS and NEVER); The days of the week; TIME (minutes to). LIÇÃO TREZE: Vocabulary Development.

NÍVEL BÁSICO II

UN I - BOOK TWO - English for Cadets of AMAN. Estudo do idioma para aprendizado de estruturas e vocabulário de cerca de duas mil e quinhentas palavras. Lição Quinze: GOING TO (future) - CAN (interrogative, negative and negative contracted forms). Lição Dezesseis: CAN (interrogative, negative and contracted forms) - Introduction of Future Tense (affirmative, interrogative, negative, affirmative and negative contracted forms) - MUST (affirmative form). Lição Dezessete: Past Tense of the Verb TO BE (affirmative, interrogative, negative, and negative contracted forms). Lição Dezoito: Past Tense of Regular Verbs (affirmative, interrogative, negative and negative contracted forms with DID). Lição Dezenove: Past tense of Irregular Verbs (affirmative and interrogative forms). Lição Vinte: Past tense of the verb TO HAVE - Past Tense of Irregular Verbs (affirmative, interrogative, negative and negative contracted forms). Lição vinte e um:THERE WAS AND THERE WERE (affirmative, interrogative, negative and contracted forms) - THERE WILL BE (affirmative, interrogative, negative, and negative contracted forms). Lição vinte e dois: The Past Tense of Regular and Irregular Verbs (affirmative and interrogative forms) - COULD - (affirmative, interrogative, negative and negative contracted forms). Lição vinte e três: The Past Tense of Regular and Regular Verbs (affirmative forms). Lição vinte e Quatro: Would like (l'like, you'd like ...) - Objective Case of Personal Pronouns. Lição Vinte e Cinco: The Conditional Tense (affirmative, interrogative, negative and negative contracted forms) - Possessive Case (Double Possessive). Lição vinte e seis: Interrogative - Negative Sentences. Lição vinte e sete: Possessive Pronouns - A FEW - MAY (affirmative, interrogative and negative forms). Lição vinte e oito: SOME, ANY - SOMETHING, NOTHING.

- PSICOLOGIA

UN I - A PSICOLOGIA E SUA HISTÓRIA - A evolução do conceito de Psicologia. As extintas Escolas do século XX. - Consequências das discussões teóricas nos diversos movimentos (Escolas). O método científico.

UN II - APRENDIZAGEM - A aprendizagem e a reflexologia de Pavlov. A reflexologia Americano-Behaviorismo. A Psicologia associacionista e o sistema de Skinnor. Generalização e Discriminação de estímulos. Classificação dos reforços e Esquemas de reforçamento. A aprendizagem como processo perceptivo, segundo os Gestaltistas. Fatores que contribuem para a emergência do INSIGHT. O princípio de prazer e da dor e a lei do efeito. A epistemologia genética de Piaget a partir da ação.
UN III - PSICOLOGIA EVOLUTIVA - Objetivos da Psicologia infantil cientifica e os princípios gerais de desenvolvimento. O desenvolvimento pré-natal e os reflexos inatos. Características da infância, tarefas evolutivas e a psico-motricidade. O desenvolvimento sócio-emocional. Socialização familiar. Desenvolvimento da linguagem e da cognição. A adolescência. A integração social. Amor e sexo. A vida adulta, a meia idade e a velhice.
UN IV - PSICOLOGIA DIFERENCIAL - Personalidade: conceito e características. Teoria da personalidade. Teoria sobre a inteligência. Tentativa de avaliação da inteligência. Motivação. A tomada de decisão. Ajustamento. Personalidade normal e anomalias sexuais. Personalidades Patológicas.
UN V - PSICOLOGIA SOCIAL - Dependência e interdependência social. Atitudes, conceito e formação. Atitudes-mudança. Conformismo social. Grupos sociais. Processos sociais. Sociometria. Teoria, formas e condições de liderança. O Chefe Militar e o Aspirante. Mudança de atitudes de soldado incorporado. Fadiga de combate. Guerra Psicológica. Lavagem Cerebral.

- GEOGRAFIA
UN I - FUNDAMENTOS - Estratégias, Geografia e Geopolítica. Conceituação. Escolas e Tendências. Fatores fisiográficos. Caracterização da área. Geologia, oreografia, hidrografia, litoral, clima e vegetação. Informações sobre cada fator, classificação, influências. Fatores psicossociais. Antecedentes históricos e sociais, população, saúde pública, situação cultural e religiosa, trabalho, previdência e assistência social, moral social e opinião pública. Informações sobre cada fator. Classificação. Influências. Fatores Políticos. Estrutura política, sistema jurídico, política nacional, segurança nacional, informações sobre cada fator. Classificação, Influências. Fatores econômicos. Estrutura econômica, agropecuária e pesca. Produção industrial, comunicações, transportes, comércio, finanças, informações sobre cada fator. Classificação, Influências.
UN II - PAÍSES DO MUNDO - América Central. Argentina. Uruguai e Paraguai. Países Andinos. E. U. A. URSS. Europa Oriental. Europa Ocidental. África. China. Japão.

- HISTÓRIA MILITAR
UN I - PESQUISA HISTÓRICA - Pesquisa histórica. Metodologia da pesquisa histórica. Elaboração de pesquisa histórica.
UN II - AS GRANDES POTÊNCIAS MUNDIAIS - COMUNIDADE BRITÂNICA. FRANÇA. ESTADOS UNIDOS. ALEMANHA. JAPÃO. URSS.
UN III - ÁREAS CRÍTICAS DO MUNDO ATUAL - CHINA. SUL DA ÁSIA. SUDESTE ASIÁTICO. ÁFRICA. CUBA. ORIENTE MÉDIO.
UN IV - AMÉRICA LATINA - Formação do território, da nacionalidade e política. Evolução Política. Áreas de fricção política. Guerra do Chaco. Guerra do Pacífico.

- DIREITO
UN I - ELEMENTOS INTRODUTÓRIOS A CIÊNCIA DO DIREITO E A TEORIA GERAL DO ESTADO - A Norma Ética; o Direito e a Moral; as normas de comportamento e de organização; a estrutura das normas jurídicas. A divisão do Direito. Nação e Estado. A evolução do Estado. O Estado quanto a forma. O Direito como elemento estável da ordem estatal: seu conceito e classificação. O Costume e a Lei: conceito e revogação. A lei: classificação, hierarquia e obrigatoriedade. Controle de lei pelo Poder Judiciário e revisibilidade constitucional. O Estado Moderno; O Poder Constituinte e os sistemas constitucionais. A importância de soberania. Parlamentarismo, presidencialismo e regime diretorial.
UN II - DIREITO CONSTITUCIONAL - Noções histórico-jurídicas das Constituições brasileiras desde 1824 a 1967. Constituição de 1967. A divisão territorial do Brasil - Estados, Distrito Federal e Territórios. Os bens de domínio público. A Tripartição do Poder Estatal. O Brasil e a Guerra. A competência da União e a Intervenção Federal. Os Princípios Constitucionais. Autonomia dos Estados-Membros e intervenção federal. Os municípios, o Distrito Federal e os Territórios Federais. Sistema tributário. O Poder Legislativo: natureza e finalidade. A importância bicameral na Federação e as competências cumulativas, exclusivas e privativas. O impedimento (Impeachment). Os sistemas eleitorais e a técnica do sistema proporcional. O Processo

Legislativo: O orçamento e a Fiscalização financeira e orçamentária. O Poder Executivo: elegibilidade, mandato, atribuições e competência. A técnica do Colégio Eleitoral do Presidente da República. O Ministério Público. O Poder Judiciário: organização e competência. A Nacionalidade. Os direitos políticos. Os partidos políticos. Dos direitos e das garantias individuais: noções sobre o Habeas-corpus e o Mandato de Segurança. Da ordem econômica e social: a família, a educação e a cultura. Segurança Nacional e Forças Armadas. Medida de Emergência e Estado de Sítio. Funcionários Públicos e disposições gerais da Constituição.

UN III - DIREITO INTERNACIONAL PÚBLICO - Direito Internacional Público e sociedade internacional. Noções histórico-jurídicas. Fontes formais e materiais. Estudo sumário dos tratados. As relações internacionais: Chefe de Estado, Ministro das Relações Exteriores, Agentes Diplomáticos e Agentes Consulares. ONU - Composição e funcionamento. Organismos especializados, particularmente a OEA. Sistemas de segurança e legitima defesa coletiva no âmbito da ONU e OEA. Domínios terrestres, marítimo, flutuante e aéreo. Modos de solução dos litígios internacionais. Sanções.

UN IV - DIREITO PENAL MILITAR - Direito Penal Militar. Imputabilidade e responsabilidade criminal. Infrações penais - Graus da culpabilidade. Crime Militar. “Iter criminis” e crime impossível. Ignorância ou erro da lei penal. Coação e obediência hierárquica, Isenções penais. Caracteres de legitimidade da pena, sua aplicação e conversão. As penas principais. A indignidade para o oficialato e a incompatibilidade com o oficialato e a perda da patente e posto. Circunstâncias agravantes e atenuantes. Extinção da punibilidade. Prescrição e reabilitação. Livramento condicional e suspensão condicional da pena e medidas de segurança. Crimes contra a segurança externa do país. Crimes contra a autoridade e disciplina militar. Crimes contra o Serviço Militar e o dever militar. Crimes contra a administração militar. Crimes contra a pessoa e contra a honra. Crimes sexuais e crimes contra o patrimônio. Crimes em tempo de guerra: traição, covardia etc.

UN V - DIREITO JUDICIÁRIO PENAL MILITAR - Organização, competência e funcionamento da Justiça Militar. IPM, sindicância e flagrante delito. Processo ordinário: denúncia, sumário de culpa, julgamento, sentença. Processos especiais, nulidades e recursos em geral.

UN VI - DIREITO ADMINISTRATIVO - Direito Administrativo. Conceito. Breves dados históricos. Objeto e divisão. Ato administrativo. Conceito e classificação genérica. Controle pelo Poder Judiciário. Órgãos da Administração Pública Brasileira. A Administração Pública Federal: Chefia, órgãos auxiliares. A administração pública dos Estados, do Distrito Federal, dos Territórios e dos Municípios. Licitação para compras, obras, serviços e alienações. Concessão de Serviço Público, de Autorização e de Permissão. Contrato Administrativo e o ato administrativo unilateral. A intervenção do Estado no domínio econômico e na propriedade privada. O Poder de Polícia: Conceito. O Estatuto dos Funcionários Públicos Civis da União. Principais direitos e deveres. Penalidades. O Processo administrativo. Natureza estatutária da função.

UN VII - DIREITO CIVIL - Direito Civil. Breve histórico do Código Civil Brasileiro. Pessoa. Divisão. Pessoa Natural. Estado Civil. Domicílio. Capacidade. Pessoa Jurídica. Natureza. Divisão. Constituição. Domicílio. Responsabilidade. Registros Públicos. Bens. Conceito. Classificação. Bem de família. Nascimento dos direitos. Relação de direito. Fatos e atos jurídicos. Ato ilícito. Defesa e extinção dos direitos. Ação. Renúncia e Prescrição. Família. Constituição. Casamento. Habilitação. Formalidades essenciais. Celebração do casamento. Casamento religioso com efeitos civis. Efeitos jurídicos do casamento. Regime de bens. Impedimentos matrimoniais. Parentesco. Filiação legítima e ilegítima. Adoção. Dissolução da sociedade conjugal. Casamento nulo e anulável. Efeitos da dissolução da sociedade conjugal. Divórcio. Conceito. Espécies. Motivo. Efeitos jurídicos. Posse. Generalidades. Distinção entre posse e propriedade. Classificação da posse. Vícios da posse. Aquisição e defesa da posse. Propriedades. Conceito. Aquisição. Reivindicação. Condomínio. Propriedade literária, científica e artística. Direitos reais de garantia. Conceito. Espécies: hipoteca penhor, anticrese. Alienação fiduciária. Contrato. Conceito. Formas. Classificação - espécie - validade. Contratos nulos e anuláveis. Contrato de compra e vinda de imóveis. Arras. Evicção. Vícios redibitórios. Principais aspectos dos contratos de locação de imóveis. Direito Sucessório. Aspectos fundamentais. Objeto e suas relações. Sujeito ativo. Direito Sucessório. Sujeito Passivo. Complexo de relações jurídicas**.**

UN VIII - DIREITO COMERCIAL - Comércio: conceito, espécies, elementos essenciais. Atos de comércio, Comerciantes e Agentes auxiliares do comércio. Contratos mercantis. Sociedades mercantis. Títulos de créditos.

UN IX - DIREITO DO TRABALHO - Direito do Trabalho. Conceito. Contrato individual. Empregado e Empregador. Salário. Convenção coletiva. Principais obrigações trabalhistas.

- INGLÊS

NÍVEL INTERMEDIÁRIO I

UN I - BOOK ONE - ENGLISH FOR CADETS OF AMAN - Lesson 1 - Introduction of the Present Tense of the verb TO BE (This is, it is) (Affirmative, interrogative and contracted forms); Commands (Imperative; Numbers (1 to 10); Interrogative Pronoun WHAT; Demonstrative Pronoun THIS; The Definite Article; The Indefinite Article A /AN. Lesson 2 - The Present Tense of the verb TO BE (I AM, YOU ARE, HE IS) - affirmative, interrogative, contracted forms Demonstrative Pronoun THAT; Interrogative Pronoun WHO; Ordinal Numbers (1 st, 2nd). Lesson 3 - Possessive Adjectives (MY, YOUR, OUR); Possessive Case; Ordinal Number (3 rd). Lesson 4 - The Present Tense of the verb TO BE (WE ARE, YOU ARE, THEY ARE) - affirmativo, interrogative and contracted forms; Interrogative Adjective YOUR (p1) Here, There and Over There. Lesson 5 - The Present Tense of the verb TO BE (negative and negative contracted forms) Possessive Adjectives - HIS, HER, THEIR; Personal Pronoun SHE; Interrogative Adjective WHOSE. Lesson 6 - THERE IS and THE ARE (affirmative and interrogative forms); Colors; Interrogative Pronoun: HOW, MANY, WHICH; Ordinal Numbers (4th, 5th, 6th and 7th). Lesson 7 - THERE IS AND THERE ARE (NEGATIVE FORM); Demonstrative Pronouns THESE and THOSE; SOME and NO. Lesson 8 - Introduction of the Present Continuous Tense (affirmative, interrogative contracted and negative contracted forms); TIME (hours) Number 11. Lesson 9 - HAVE (affirmative form; interrogative and negative forms with do); DATE; Ordinal Number 8th; Number 12. Lesson 10 - The Present of the verb TO HAVE (HAS; interrogative, negative and negative contracted forms with DO and DOES) TIME (minutes after); Number 13 to 20. Lesson 11 - The Present Tense of Regular and Irregular Verbs (affirmative, interrogative, negative and negative contracted forms with DO); Ordinal Number 9th; HOW MUCH; Colors; Numbers 30 and 40. Lesson 12 - The Present Tense of Regular and Irregular Verbs (affirmative, interrogative, negative and negative contracted forms with DO and DOES) Adverbs of Frequency (GENERALLY, USUALLY, SOMETIMES); TIME (minutes past). Lesson 13 - The Present Tense of Regular verbs (continued); WHEN; Adverbs of Frequency (ALWAYS and NEVER); the days of the week; TIME (minutes to). Lesson 14 - Vocabulary Development. Lesson 15 - GOING TO (future) CAN (interrogative, negative and negative contracted forms).

UN II - BOOK TWO - ENGLISH FOR CADETS OF AMAN - Lesson 16 - CAN (interrogative, negative ou contracted forms); Introduction of Future Tense (affirmative, interrogative, negative, affirmative and negative contracted forms); MUST (affirmative form) Lesson 17 - Past Tense of the verb TO BE (affirmative, negative and negative contracted forms). Lesson 18 - Past Tense of Regular Verbs (affirmative negative and negative contracted forms with DID). Lesson 19 - Past Tense of Irregular (affirmative and interrogative forms). Lesson 20 - Past Tense of Irregular Verbs (affirmative, interrogative, negative and negative contracted forms). Lesson 21 - THERE WAS and THERE WERE (affirmative, interrogative and negative forms). THERE WILL BE (affirmative, interrogative, negative and negative contracted forms). Lesson 22 - The Past Tense of Regular and Irregular Verbs (affirmative and interrogative forms); COULD (affirmative, negative, interrogative and negative contracted forms). Lesson 23 - The Past Tense of Regular and Irregular Verbs (affirmative form). Lesson 24 - Would Like (I'd like, you'd like ...); Objective Case of Personal Pronouns. Lesson 25 - The Conditional Tense (affirmative. interrogative, negative and negative contracted forms); Possessive Case (Double Possessive). Lesson 26 - Interrogative-Negative Sentences. Lesson 27 - Possessive Pronoun - A FEW - MAY (affirmative, interrogative and negative forms). Lesson 28 - SOME, ANY, SOMETHING, ANYTHING, NOTHING. Lesson 29 - MILITARY TERMINOLOGY; SUPLEMENTARY INFORMATION. Lesson 30 - MILITARY MANUAL: AN EXAMPLE.

NÍVEL INTERMEDIÁRIO II

UN I - FUNCIONAMENTO DOS ÔNIBUS - Expressões: Get on, e Get off. Formas Progressivas Presente e Passado. Futuro Simples. May - Might - Expect - Plan to – Hope to. Diálogo no ônibus. Diálogo ao telefone. Texto sobre o funcionamento dos ônibus na cidade.

UN II - ROTINA DA VIDA-DIÁRIA - Expressão: by (transportation) e Shall. Advérbios de frequência. Uso de STILL, ALREADY, YET. Diálogos variados. Texto sobre a rotina da vida diária.

UN III - COMPRANDO ROUPAS - Expressões idiomáticas. Some - Any - No. No x Not. Comparativo de igualdade. Diálogo sobre situação de compra em loja de roupa.

UN IV - GEOGRAFIA DOS E.U.A – Modal Verbs: Can, May, Would, Should e Must. Diálogo sobre meios de transporte nos E.U.A. TEXTO: Geografia dos E.U.A.

UN V - USO DO TELEFONE - Interrogativos. Revisão: comparativo, advérbios de frequência e tempos verbais. Diálogos em situações diversas. Texto sobre o uso do telefone.
UN VI - VISITA AO MÉDICO - Presente Perfeito. Should e Ought to. Verbos Irregulares. Diálogos em situações diversas. Texto sobre uma visita ao médico.
UN VII - JORNAIS - Expressões idiomáticas. Passado dos Modais. Verbos Irregulares. Diálogos variados em situações diversas. Texto sobre jornais.
UN VIII - TELEVISÃO - Expressões Idiomáticas. Revisão: interrogativos e modais. Diálogos em situações diversas. Textos sobre a televisão. Texto sobre a arte do "faça voce mesmo".
UN IX - FERIADOS - Expressão: Look forward to. Uso de TOO, EITHER e BUT. Substantivos contáveis e incontáveis. Indefinidos e quantidade. Colocação dos objetos direto e indireto. Diálogos em situações diversas. Texto sobre a comemoração dos diferentes feriados.
UN X - CORREIOS - Revisão: - Objeto direto e indireto; - indefinidos de quantidade; - tempos verbais e - modais. Diálogos em situações variadas. Texto sobre uma ida ao cinema. Texto sobre o Correio. Condicionantes Fisiográficas, Políticas, Psicossociais e Econômicas. Planejamento e ação governamental. Perspectivas.

GRUPO I

EDUCAÇÃO FÍSICA

UN I – NATAÇÃO – nadar percursos mínimos de 100 m, em 3 minutos, de preferência no estilo livre ("Crawl").
UN II – TREINAMENTO FÍSICO MILITAR: saltar em altura, no mínimo 1,20 m; correr 100 m, no tempo máximo de 14,0 seg; arremessar uma granada de 500gr a uma distância mínima de 30 m; correr 3000 m no tempo máximo de 13 minutos; cobrir o percurso da Pista de Pentatlo Militar, sem tempo.

GRUPO II

ORDEM UNIDA
UN I – INSTRUÇÃO SEM ARMA: identificar as diferentes posições e comandos; executar os movimentos correspondentes a cada posição; executar ps movimentos de passagem de uma posição para outra e evoluções.
UN II – INSTRUÇÃO COM ARMA: identificar as diferentes posições e comando; executar os movimentos correspondentes a cada posição; executar os movimentos de passagem de uma posição para outra e evoluções com arma.

HIGIENE MILITAR E PRIMEIROS SOCORROS
UN I – PRIMEIROS SOCORROS: utilizar a bolsa de curativos individual; executar a respiração artificial; transportar feridos pelos diversos processos; fazer bandagem e ataduras; fazer imobilizações empregando talas e tipoias; tomar medidas para estancar hemorragias.
UN II – HIGIENE MILITAR: purificar a água em campanha; executar medidas de higiene individual em campanha; diferenciar as diversas moléstias através de seus sintomas.

MANEABILIDADE
UN I - INSTRUÇÃO INDIVIDUAL: executar os exercícios de: marcha, deitar, rolar, rastejar, engatinhar, levantar, ajoelhar-se, marche-marche e mudança de frente; executar e preparar para o lanço e o lanço propriamente dito.
UN II - ESCOLA DO GC: enunciar as funções de um GC; enumerar as atribuições de cada elemento do GC; citar as formações que pode tomar um GC; executar os deslocamentos e mudanças de formação.

INSTRUÇÃO GERAL - (UD I R1 (RISG e NGA/CC): definir a missão e organização do M Ex, bem como a constituição das Forças Terrestres; Citar a divisão do Território Nacional em Exércitos e RM; diferençar Estabelecimento e Repartições Militares; distinguir os conceitos de comando e de administração, nos corpos de Tropa; aplicar ordens contidas nas NGA/CC; definir Boletim Interno; citar as partes componentes do Boletim Interno; citar os tipos de formaturas existentes, caracterizando o caso da AMAN; diferençar escala de serviço e serviço de escala; enumerar os deveres do Sgt de Dia; listar os deveres do Cb

de Dia e Plantões; citar a missão e a constituição de Guarda da SU; escriturar a documentação do Sgt de Dia; citar a finalidade e a constituição da Guarda do Quartel; enumerar os deveres do Soldado da Guarda, Reforço da Guarda, Cabo da Guarda do Quartel e da Sentinela; citar as atribuições da Patrulha de Cadetes; definir as situações extraordinárias da Tropa.

UN II - R2 (R CONT) : definir os sinais de respeito; estabelecer a correspondência hierárquica entre as Forças Armadas; listar os elementos essenciais da continência individual; executar a continência individual; citar o procedimento correto do militar em situações diversas, particularmente a do Cad; caracterizar a precedência entre militares; citar casos em que a tropa presta continência, incluindo a Guarda do Quartel e Sentinelas; citar as autoridades com direito aos toques de corneta ou clarim; diferençar as insígnias das autoridades e as regras que estabelecem seu uso; definir honras militares; citar as honras militares e os casos em que são prestadas; descrever as formalidades para o hasteamento e o arriamento da Bandeira Nacional e o cerimonial para o seu culto.

UN III - R4 (RDE): definir transgressão disciplinar; diferençar transgressão disciplinar de crime militar; enumerar as prescrições regulamentares que limitam a esfera da ação disciplinar; determinar a natureza das causas e circunstâncias que influem no julgamento dos transgressores; fazer o enquadramento de transgressão disciplinar, usando o RDE e as NAPD/AMAN; classificar as transgressões disciplinares; citar as causas e circunstâncias que influem no julgamento dos transgressores; classificar o comportamento dos militares.

UN IV- RUE: diferençar entre si os diversos uniformes do Exército, particularmente os do cadete.

TOPOGRAFIA DE CAMPANHA

UN I - CARTAS TOPOGRÁFICAS: Definir cartas topográficas; classificar militarmente as cartas topográficas; diferençar uma moldura geográfica de uma quilométrica; identificar um mínimo de quinze convenções cartográficas;

UN II - MEDIDAS DE DISTÂNCIAS; escalas **-** definir escalas; determinar a escala de uma carta; estabelecer as características dos diversos tipos de escala; construir uma escala gráfica; utilizar os instrumentos para medida de distâncias; resolver problemas sobre escalas de carta.

UN III - DIREÇÃO E AZIMUTE: Definir grau e milésimo; utilizar a fórmula do milésimo na solução de problemas; definir as três direções bases de referência; diferençar os ângulos formados pelas direções bases; definir azimute e rumo, estabelecendo diferenças; medir azimute na carta; traçar azimute na carta.

UN IV - ORIENTAÇÃO E MEDIDA DE ÂNGULOS: Utilizar a bússola na medida de ângulos horizontais e transversais; utilizar a bússola na medida de ângulos horizontais, transportando-os para a carta e vice-versa; medir ângulos horizontais e verticais empregando o binóculo; orientar-se, com ou sem bússola, de dia ou a noite; executar uma pista de orientação noturna.

UN V - DESIGNAÇÃO E LOCAÇÃO DE PONTOS NA CARTA: designar e locar pontos na carta, utilizando coordenadas geográficas, coordenadas retangulares e coordenadas polares; locar e designar pontos na carta, utilizando normógrafo, tela-código ou linha-código; usar papel calco; designar um ponto na carta, pela referência a um outro ponto.

UN VI – RELEVO: Representar o relevo do terreno; determinar a cota de um ponto; iluminar um trecho da carta; esqueletear uma area na carta.

UN VII - ORIENTAÇÃO E GIRO DO HORIZONTE: Identificar as representações na carta com os pontos do terreno nela representados; orientar-se no terreno com o auxílio da bússola e sem ela; determinar a direção do NORTE, sem auxílio da bússola, através de processos expeditos; determinar o ponto de estação; realizar o giro do horizonte.

ORGANIZAÇÃO DO TERRENO

UN I – CAMUFLAGEM: definir camuflagem; executar a camuflagem individual de viaturas e de posições de tiro; empregar corretamente o material, observando as regras gerais para executar a camuflagem.

UN II – FORTIFICAÇÃO EM CAMPANHA: definir obstáculos; classificar obstáculos; usar corretamente as ferramentas e o material; construir abrigos e espaldões; construir obstáculos de arame; utilizar a ferramenta adequadamente.

UN III – EXPLOSIVOS, DESTRUIÇÕES, MINAS E ARMADILHAS: definir, classificar e caracterizar os explosivos militares; identificar e manusear o material de destruições; calcular cargas; utilizar as normas de segurança para emprego de explosivos; compenetrar-se da grande importância dessas normas em todas as situações; distinguir as minas AP e AC; identificar os tipos de minas; instalar, neutralizar e remover armadilhas; manusear e identificar os acionadores.

MANUTENÇÃO DO MATERIAL

UN I – MANUTENÇÃO DO ARMAMENTO: identificar os diversos Escalões de Manutenção ; citar as fases da manutenção de 1º Escalão; identificar a importância da manutenção do material; identificar o material utilizado na manutenção do armamento; executar a manutenção do armamento.

UN II – MANUTENÇÃO DO EQUIPAMENTO: identificar o material utilizado na manutenção do equipamento; identificar a importância da manutenção do equipamento; executar a manutenção do equipamento.

EQUITAÇÃO

UN I – ENCILHAMENTO DO CAVALO: identificar o material de arreamento, contenção e limpeza; enfrenar, encilhar e desencilhar o cavalo; conduzir o arreamento.

UN II – AQUISIÇÃO DA CONFIANÇA: montar e apear; conduzir o cavalo à mão; montar e apear por salto e a comando; montar com balanceamento da perna; governar o cavalo ao passo e a trote; corrigir a posição do cavalo; exercícios de governo do cavalo ao passo e ao trote; executar os flexionamentos recreativos.

UN III – COLOCAÇÃO DA SELA – executar um deslocamento com o assento flexível, firme e aderente, com uma completa liberdade de movimentos; executar um trabalho ao passo e trote com completa descontração de articulações; trotar com e sem estribos, com o assento flexível.

UN IV – ESCOLA DAS AJUDAS: governar o cavalo ao passo, ao trote e ao galope, no picadeiro e no exterior; executar a vontade, mudanças de andadura e direção; governar o cavalo em qualquer terreno; transpor obstáculos naturais encontrados; regular andadura.

UN V – APLICAÇÃO DE ESCOLA DAS AJUDAS: executar um percurso no exterior, em terreno variado ao passo, ao trote e ao galope ultrapassando obstáculos naturais.

GRUPO III

ARMAMENTO

UN I – FZ 7,62 M 964 (FAL) E FZ MTR 7,62 M 964 (FAP): citar a nomenclatura, as características, acessórios e os sobressalentes; executar a desmontagem de 1º e 2º escalão, descrevendo as operações; identificar as peças e partes da arma; descrever as fases de funcionamento; identificar e sanar incidentes de tiro.

UN II – PST 9 MM M 975 (BERETA): citar a nomenclatura, as características, os acessórios e os sobressalentes; identificar as peças e partes da arma; descrever as fases do funcionamento; executar a desmontagem e a montagem de 1º escalão.

UN III – GRANADAS DE MÃO: citar as características; identificar as partes da granada; explicar o funcionamento; espoletar as granadas.

UD IV – GRANADAS DE BOCAL: citar as características; identificar as partes e as peças; explicar o funcionamento.

COMBATE E SERVIÇO EM CAMPANHA

UN I – INSTRUÇÃO TÁTICA INDIVIDUAL: reconhecer no terreno os diversos acidentes, identificando-os pela sua nomenclatura correta; explicar altimetria; explicar planimetria; citar a classificação do terreno quanto à visibilidade, campos de tiro, progressão, praticabilidade, vegetação e quanto as alturas relativas da região; explicar comandamento; citar a classificação das elevações de acordo com a massa, forma e altura; identificar os acidentes do terreno pelo seu valor militar; referir-se aos acidentes do terreno em linguagem militar; diferença coberta e abrigo; citar as finalidades de utilização de cobertas e abrigos; citar as regras para ocupação de cobertas; citar as condições que devem satisfazer os abrigos; avaliar e classificar, militarmente, as distâncias; citar as causas que influem na avaliação das distâncias; designar objetivos pelos diversos processos; analisar a utilização do terreno para observar de dia e à noite; transmitir o resultado de uma observação; citar as condições exigidas para uma posição de tiro; construir uma posição de tiro; citar os processos de progressão; executar um lanço obedecendo as prescrições regulamentares; enunciar as regras para a execução de uma progressão sob os focos de Inf e da Art; descrever a técnica para progressão à noite; descrever a conduta para defesa passiva e ativa contra aviões e carros inimigos; enunciar a missão e os deveres do vigia; citar as características do local do vigia; exercer a função de vigia em um exercício; citar as missões, os deveres e a conduta do esclarecedor; citar a técnica para abordagem de acidentes; definir

mensageiro; citar a classificação dos mensageiros; citar o equipamento necessário ao mensageiro para o cumprimento da missão; enunciar os princípios gerais usados na transmissão de mensagens; definir homem de ligação; citar as qualidades e conhecimentos necessários ao homem de ligação; definir atirador de emboscada; descrever a conduta do atirador de emboscada nas patrulhas e nas missões de busca.
UN II – PATRULHAS: definir patrulhas; citar os tipos de patrulhas; enumerar as formações adotadas pela patrulha; descrever as ações do soldado na execução da patrulha; aplicar os conhecimentos adquiridos em um exercício.
UN III – PISTA DE COMBATE: Transpor obstáculos de tronco e corda, executando uma pista com lançamento de granadas de mão.
UN IV - TRANSPOSIÇÃO DE CURSO D'ÁGUA: executar a transposição de um curso d'água utilizando o fardamento e o equipamento e os meios de fortuna existentes no local; citar os processos de transposição.
UN V - MARCHAS E ESTACIONAMENTOS: citar as situações em que a tropa marcha a pé; citar os tipos de marcha a pé; citar os fatores que concorrem para o sucesso das marchas; citar as missões do destacamento precursor; citar as velocidades de marcha a pé; citar as formas de estacionamentos; diferençar cada uma das formas de estacionamento; citar os cuidados antes, durante e após as marchas; analisar uma área de estacionamento; realizar uma marcha a pé de 12, 16, e 24 Km, obedecendo as prescrições do C 21-18; instalar um acampamento modelo.

TIRO
UN I – FZ 7,62 M964 – FAL – TIB - TIRO DE INSTRUÇÃO BÁSICO: descrever os elementos fundamentais do tiro; executar a IPT, realizando todos os exercícios corretamente; executar o TIP, obtendo conceito "APTO" em todos os exercícios; conhecer e aplicar as normas de procedimento e segurança no estande; preencher corretamente os borrões de tiro; sanar incidente de tiro; aplicar a técnica para o tiro noturno; executar a manutenção de 1º escalão antes e após o tiro; alcançar nos tiros realizados, as condições de aprovação exigidas pela IGTAEx-82.
UN II – PST 9 M975 (BERETTA) TIB TIRO DE INSTRUÇÃO BÁSICO: descrever os elementos fundamentais do tiro; executar a IPT, realizando todos os exercícios corretamente; citar as normas de segurança e procedimento no estande; preencher corretamente os borrões de tiro; identificar e sanar incidentes de tiros com segurança; aplicar a técnica ensinada na execução dos tiros; executar a manutenção de 1º escalão antes e após o tiro; alcançar, nos tiros realizados, as condições de aprovação exigidas pela IGTAEx-82.
UN III - GRANADAS DE BOCAL : executar a IPT, realizando os exercícios corretamente; executar o tiro de granada de bocal seguindo os fundamentos e as normas de segurança; preencher corretamente os borrões de tiro; executar a manutenção antes e após o tiro.
UN IV - GRANADAS DE MÃO: aplicar os fundamentos para o lançamento; executar uma pista de exercícios, com granadas inertes, obtendo as condições de aprovação; espoletar granadas corretamente; realizar o lançamento, aplicando os fundamentos e normas de segurança.

COMUNICAÇÕES
UN I - INTRODUÇÃO AS COMUNICAÇÕES: Concluir sobre a necessidade e responsabilidade pelo estabelecimento de ligações nos diferentes escalões; citar os meios de comunicações empregados nos pequenos escalões, suas vantagens e desvantagens.
UN II – MENSAGEM: definir, classificar e redigir as mensagens.

GUERRA QUÍMICA, BIOLÓGICA E NUCLEAR
UN I – GUERRA QUÍMICA: definir Guerra Química; classificar e caracterizar os agentes padrões dos grupos; citar os tipos de proteção; citar as medidas de primeiros socorros contra os agentes químicos; descrever os componentes de uma máscara contra gases; colocar e retirar a máscara em atmosfera contaminada – exercício em câmara de gás.

GRUPO I

EDUCAÇÃO FÍSICA
UN I – NATAÇÃO: nadar percurso mínimo de 150 m em 5 minutos, de preferência, no estilo livre (Crawl);
UN II - TREINAMENTO FÍSICO MILITAR: subir numa corda, a altura mínima de 4m, sem auxílio dos pés; transportar um companheiro do mesmo peso, numa distância de 100 m, no tempo máximo de 25

segundos; saltar em extensão, no mínimo 4 m; correr 4000 m, no tempo máximo de 17 minutos e 30 segundos; cobrir o percurso da pista de Pentatlo Militar, sem tempo.

GRUPO II

INSTRUÇÃO ESPECIAL

UN I – PEQUENAS FRAÇÕES EM OPERAÇÕES NA SELVA: executar as técnicas básicas individuais de pequenas frações nas operações na selva.

ORDEM UNIDA

UN I – ORDEM UNIDA A PÉ (COM ARMA): identificar os diferentes posições e comandos; executar os movimentos correspondentes a cada posição; executar os movimentos de passagem de uma posição para outra; executar o treinamento no comando da tropa.

UN II – ORDEM UNIDA MOTORIZADA: realizar os movimentos para o embarque e para o desembarque; identificar as diferentes formações e comandos; executar os movimentos correspondentes a cada comando; executar os movimentos de passagem de uma formação para outra e evoluções; executar o treinamento no comando da tropa.

GRUPO III

TIRO DAS ARMAS PORTÁTEIS

UN I – FZ 7,62 M 964 (FAL): citar os elementos fundamentais do tiro; alcançar, na realização dos tiros executados, as condições de aprovação exigidas nas IG 20-03; aplicar a técnica para a execução do tiro noturno; aplicar a técnica para a obtenção da alça de combate.

UN II – PST BERETA 9 MM: descrever os elementos fundamentais do tiro; obter, na execução do tiro com lápis, o conceito APTO; alcançar na realização dos tiros previstos, as condições de aprovação exigidas nas IG 20-03.

INSTRUÇÃO GERAL

UN I – REGULAMENTO DISCIPLINAR DO EXÉRCITO (RDE): definir princípios gerais da hierarquia e disciplina; determinar a esfera de ação e competência para aplicar as punições; analisar as circunstâncias que atenuam ou agravam a transgressão; determinar a gradação, conceituação e execução das punições disciplinares; identificar nota de punição; analisar o cumprimento da punição; classificar o comportamento militar; citar recursos e recompensas; identificar condições e autoridades para cancelamento de punições.

MANUTENÇÃO ORGÂNICA DE VIATURA AUTOMÓVEL

UN I – A VIATURA AUTOMÓVEL: definir viatura automóvel; identificar os componentes das viaturas automóveis; conhecer a organização geral das viaturas automóveis; classificar e identificar as viaturas automóveis militares; iniciar-se em conhecimentos básicos sobre viaturas operacionais de sua Arma ou Serviço e realizar a manutenção do usuário; utilizar corretamente o ferramental de 1º escalão ao realizar a Mnt do usuário.

BALÍSTICA

UN I – ELEMENTOS DA TRAJETÓRIA: identificar os elementos da trajetória; comparar os elementos com os existentes em manuais e regulamentos de tiro.

UN II – FORÇAS QUE ATUAM SOBRE OS PROJÉTEIS E SEUS MOVIMENTOS : identificar as forças que atuam sobre o projetil; identificar os efeitos dos movimentos do projetil sobre o fenômeno do tiro; comparar estabilidade dos projeteis e bombas, em relação às forças que atuam sobre os mesmos.

UN III – DETERMINAÇÃO DOS ELEMENTOS DA TRAJETÓRIA E O PROBLEMA DO SÍTIO: resolver problemas práticos, relativos ao fenômeno da correção complementar do sítio, relacionando-os com a precisão; relacionar a segurança do tiro com determinados elementos da trajetória; verificar, através do cálculo, a possibilidade da ocorrência de ricochete.

UN IV – A DISPERSÃO DO TIRO: identificar a ocorrência da dispersão do tiro; efetuar o cálculo da munição para destruir determinado alvo, através das fórmulas da dispersão do tiro; resolver problemas de dispersão, com vistas à precisão do tiro

GRUPO IV

COMBATE E SERVIÇO EM CAMPANHA

UN I – ABREVIATURAS, SÍMBOLOS E CALCOS: identificar e empregar as abreviaturas e símbolos de uso mais comuns em documentos militares; interpretar e confeccionar calcos simples, utilizados para transmissão de ordens e relatórios nos pequenos escalões; valorizar o emprego das abreviaturas e símbolos militares, como medida de economia de tempo e meio; buscar a objetividade e a facilidade na transmissão de ordens e informações, através da representação gráfica.

UN II – PATRULHAS DE RECONHECIMENTO E DE COMBATE: Compreender os princípios que regem o emprego das pequenas frações (patrulhas), nas várias missões, em diversas, formas de combate; executar as diversas atividades pertinentes aos componentes de uma pequena fração; comandar pequenas frações (patrulhas) nas diversas situações de combate; reconhecer a necessidade da aplicação e obediência aos princípios de emprego das pequenas frações (patrulhas); praticar o exercício do comando de pequenas frações, com meticulosidade no planejamento e energia na execução; valorizar a eficiência da fração sob seu comando; compenetrar-se da importância do adestramento em patrulhas para a formação do combatente de Inf; aplicar os princípios que regem a conduta do pelotão de fuzileiro em diversas situações numa base de patrulha; valorizar a importância do adestramento do combatente de Inf em ações noturnas de pequenos escalões.

UN III - OPERAÇÕES RIBEIRINHAS: aplicar os princípios que regem o emprego de pequenos escalões em operações ribeirinhas comandar patrulhas e executar as missões e atividades de seus integrantes, em operações ribeirinhas ; identificar os efeitos dos tiros mergulhantes e rasantes e a diferença entre os mesmos, quando realizados contra objetivos na superfície da água; valorizar a necessidade da adaptação do combatente ao meio ambiente e ao tipo de operações; buscar a eficiência profissional da fração sob seu comando; valorizar o apoio de elementos de outras Armas às operações ribeirinhas de combate, no caso particular, de elementos de Engenharia.

UN IV – MARCHA PARA O COMBATE: aplicar os princípios que regem o emprego das frações da Cia Fzo, até o escalão GC (Sec) na marcha para o combate; comandar frações de Cia Fzo até o escalão GC (Sec) e executar as atividades pertinentes ao soldado, ao cabo e ao sargento, nas diversas situações de uma marcha para o Cmb; valorizar a necessidade da aplicação e obediência aos princípios de emprego das pequenas frações, em uma marcha para o combate; buscar a eficiência operacional da fração sob seu comando.

UN V – ATAQUE: aplicar os princípios que regem o emprego das frações da Cia Fzo, até o escalão GC (Sec), no ataque; comandar frações da Cia Fzo, até o escalão GC (Sec) e executar as atividades pertinentes ao soldado, ao Cabo e ao Sargento, nos preparativos e na execução de um ataque; valorizar a necessidade da aplicação e obediência aos princípios de emprego das pequenas frações em um ataque; buscar a eficiência operacional da fração sob seu comando; valorizar a importância do adestramento do combatente de Inf em ações noturnas.

UN VI – COMBATE DEFENSIVO: aplicar os princípios que regem o emprego das frações da Cia Fzo, até o escalão GC (Sec), na defesa de área; comandar frações da Cia Fzo, até o escalão GC (Sec) e executar as atividades pertinentes ao soldado, ao cabo e ao sargento, em operações defensivas; valorizar a necessidade da aplicação e obediência aos princípios que regem o emprego das pequenas frações em operações defensivas; buscar a eficiência operacional da fração sob seu comando; valorizar a importância do adestramento do combatente de inf em ações noturnas.

UN VII – MANOBRA: aplicar os ensinamentos adquiridos de Combate e Serviço em Campanha.

MANEABILIDADE

UN I – ORGANIZAÇÃO DA CIA E DO PEL FZO - identificar as Cias com SU que compõem o Btl; enumerar as frações componentes da Cia Fzo e identificar as suas missões genéricas; identificar as características, possibilidades e limitações da Cia Fzo; descrever o Pel Fzo; Compenetrar-se que a organização de qualquer elemento, em qualquer escalão, é função do emprego tático preconizado pela doutrina em vigor.

UN II – ESCOLA DO GC – identificar a organização em pessoal e material do GC; compreender e aplicar os princípios de emprego e as evoluções do GC; executar as funções dos integrantes do GC; comandar as evoluções do GC nas situações de combate; reconhecer a necessidade do emprego da maneabilidade no combate; valorizar a maneabilidade como elemento fundamental para a obtenção de comportamentos e reflexos indispensáveis para o condicionamento do combatente.

UN III – ESCOLA DA PEÇA E SEÇÃO DE MTR. - identificar a organização em pessoal e material da Pç e Sec Mtr pertencentes ao Pel de Apoio de uma Cia Fzo; identificar os princípios de emprego e as evoluções da Pç e Sec Mtr. Nas operações de combate; enumerar e executar as funções do pessoal da Pç e Sec Mtr, nas formações para as operações de combate; comandar as evoluções da Pç e Sec Mtr nas situações de combate.
UN IV – ESCOLA DA PEÇA E SEÇÃO CSR 57. - identificar os princípios que regem a organização, em pessoal e material, da Sec Can 57 mm SR; identificar os princípios e fundamentos básicos da maneabilidade da Pç e Sec Can 57 mm SR; aprimorar hábitos necessários à execução dos fogos da Pç e Sec Can 57 mm SR, evitando o desperdício de tempo e munição; valorizar o espírito de trabalho de equipe na guarnição da Pç e Sec Can 57 mm SR, permitindo a seus homens a entrada em posição e mudança das mesmas com rapidez e precisão; identificar habilidades e automatismos que facilitem a execução dos exercícios preparatórios para o combate no âmbito da Pç e Sec; ativar, em particular, a flexibilidade, o espírito de decisão, a coesão, a iniciativa e a autoconfiança, indispensáveis as exigências do combate.
UN V - ESCOLA DA PEÇA MTR 60 E DA PEÇA E SEC MRT 81: enquadrar a Pç Mrt 60 e a Pç e Sec Mrt 81 no QO do Pel e Cia Fzo ; identificar a organização das frações de Mrt 60 e 81, de acordo com o efetivo, funções, atribuições e material previsto no QO do Pel e Cia Fzo; comandar a Pç Mrt 60 e a Pç e Sec Mrt 81 em diferentes situações táticas, no terreno, durante um deslocamento; comandar a Pç Mrt 60 e a Pç e Sec Mrt 81 nas entradas em posição e nas missões de tiro.
UN VI - O GC BLINDADO E O CBTP. : identificar as partes componentes do CBTP; identificar as operações de manutenção de 1º escalão; executar as operações para a direção e conduta do CBTP; identificar os princípios que regem a organização em pessoal e material do GC Bld, identificar as características e o emprego do GC Bld; identificar as funções, atribuições e o material dos elementos pertencentes ao GC Bld; realizar as atividades pertinentes à maneabilidade do GC Bld, desempenhando as diversas funções; distinguir a conduta do GC Bld ao embarcar, embarcado e ao desembarcar do CBTP; identificar os princípios e os fundamentos básicos que regem as evoluções, a observação, controle e progresso do GC Bld, sob vistas e fogos do inimigo; identificar os princípios que regem a aplicação dos fogos na defensiva e na ofensiva; comandar o GC Bld na maneabilidade.

GRUPO I

TREINAMENTO FÍSICO MILITAR I (UTILITÁRIO/DESPORTO)
UN I – NATAÇÃO - Salto de Plataforma; Pista de Natação Utilitária, Natação Submersa - Realizar o salto da plataforma nas condições estabelecidas pelas Normas Internas para Avaliação Educacional (NIAE); Aplicar as técnicas de ultrapassagem de obstáculos; Executar a pista de natação utilitária de acordo com as condições estabelecidas pelas Normas Internas para Avaliação Educacional (NIAE). Transpor à distância de 7 metros, submerso nas condições estabelecidas pelas NIAE. Revelar capacidade de agir de forma firme e destemida no salto da plataforma (CORAGEM). Suportar a fadiga resultante dos treinamentos de natação utilitária, mantendo a eficiência (RESISTÊNCIA).
UN II – PISTA DE PENTATLO MILITAR (PPM). a Executar os exercícios da ginástica básica. b. Executar abdominal nas condições estabelecidas pelas NIAE.c. Demonstrar disposição para o aprimoramento sua capacidade física (DEDICAÇÃO). d. Suportar a fadiga resultante dos treinamentos neuromusculares (RESISTÊNCIA). — Ginástica com Toros. a.Executar os exercícios da ginástica com toros.
UN III – DESPORTO - GRANDES JOGOS – Identificar os procedimentos para execução dos grandes jogos. b.Participar de sessões de futebol gigante, bola militar e basquetebol gigante: contribuindo para o desempenho de sua equipe (COOPERAÇÃO) / promovendo a união entre os pares (CAMARADAGEM)/ estabelecendo um ambiente cordial.

TREINAMENTO FÍSICO MILITAR II (NEUROMUSCULAR)
UN I –TREINAMENTO NEUROMUSCULAR E COMPLEMENTAR 1.Ginástica Básica- a Executar os exercícios da ginástica básica. b. Executar abdominal nas condições estabelecidas pelas NIAE. c. Demonstrar disposição para o aprimoramento sua capacidade física (DEDICAÇÃO). d. Suportar a fadiga resultante dos treinamentos neuromusculares (RESISTÊNCIA). 2.Treinamento em Circuito- a. Executar exercícios da Pista de Treinamento de Circuito (PTC). b. Executar passagem na PTC. c. Demonstrar disposição para o aprimoramento sua capacidade física (DEDICAÇÃO). d. Suportar a fadiga resultante dos treinamentos neuromusculares (RESISTÊNCIA). e. Executar flexão na barra nas condições estabelecidas pelas NIAE. 3. Pista de cordas a. Aplicar as técnicas de ultrapassagem dos obstáculos. b. Executar a

transposição da pista sem medo, utilizando a técnica de ultrapassagem dos obstáculos (CORAGEM). c. Demonstrar disposição para o aprimoramento sua capacidade física (DEDICAÇÃO). d. Suportar a fadiga resultante dos treinamentos neuromusculares (RESISTÊNCIA).

TREINAMENTO FÍSICO MILITAR III (CARDIOPULMONAR)

UN I – TREINAMENTO CARDIOPULMONAR – Corrida Rústica Fardado – Executar o controle da Freqüência Cardíaca de Esforço (FCE) e da Freqüência Cardíaca de Recuperação (FCR); Executar as fases do aquecimento e volta à calma e Executar a corrida rústica fardado na distância de 4000 m, nas condições estabelecidas pelas Normas Internas para Medida da Aprendizagem (NIAE). Demonstrar disposição para o aprimoramento da técnica de corrida (DEDICAÇÃO). Suportar a fadiga resultante dos treinamentos de corrida (RESISTÊNCIA).

GRUPO II

EMPREGO TÁTICO

UN I – FRAÇÕES DA TROPA - A Companhia de Fuzileiros Motorizada e Blindada - Descrever a organização do BI Mtz e do BIB; Descrever as características da Cia Fzo/BI Mtz e BIB; Descrever as possibilidades e limitações da Cia Fzo Mtz e Bld e Descrever as frações componentes e as características dos Pel Fzo e Pel Ap. O Pelotão de Fuzileiros Motorizado - a. O GC - Descrever a organização de pessoal e material; Descrever as funções e atribuições dos componentes do GC; Identificar as atividades desenvolvidas pelo GC quanto à observação e controle; Identificar as técnicas de progressão do GC; Emitir os comandos para o GC durante o movimento sob as vistas e fogos do inimigo; Emitir os comandos para o GC durante os deslocamentos e altos; Emitir os comandos para o GC para mudança de frente e formação e Executar a maneabilidade do GC. b. Tiro de Fração - Realizar o tiro do GC no ataque e na defesa; Realizar a distribuição de fogos contra objetivos em largura, em profundidade e no assalto; Agir de forma firme e destemida, diante de situações difíceis e perigosas, seguindo as normas de segurança(CORAGEM) e Controlar as próprias reações para continuar a agir, apropriadamente, nas diferentes situações (EQUILÍBRIO EMOCIONAL). c. O Grupo de Apoio – Descrever a organização de pessoal e material; Descrever as funções e atribuições dos componentes das Pç; Descrever as fases da maneabilidade; Selecionar as formações adequadas face as situações apresentadas para o Pel Fzo Mtz; Executar a maneabilidade das Peças isoladamente e enquadradas no Pel Fzo Mtz; Citar as condições desejáveis para a escolha de uma posição de tiro; Emitir os comandos na maneabilidade das peças; Comandar as Pç em diferentes situações táticas no terreno e descrever o remuniciamento das peças. d. O Pel Fzo Mtz - Descrever a organização em pessoal e material de um Pel Fzo Mtz; Descrever as funções e atribuições dos componentes do Pel Fzo Mtz; Descrever o emprego do material de um Pel Fzo Mtz; Descrever as formações adotadas pelo Pel Fzo; Identificar as técnicas de progressão do Pel; Identificar os comandos para a execução dos fogos e Descrever a conduta do Pel Fzo nos deslocamentos motorizados, nas mudanças de formação, frente e direção, nos movimentos sob vistas e fogos Ini, na defesa contra a aviação, CC e agentes QBN e na execução dos fogos. e. A Maneabilidade - Emitir os comandos para o Pel Fzo Mtz durante os movimentos sob as vistas e fogos do inimigo; Emitir os comandos para o Pel Fzo Mtz durante os deslocamentos e altos; Emitir os comandos para o Pel Fzo Mtz para as mudanças de frente e formação; Executar as atividades da maneabilidade de um Pel Fzo Mtz, destacando os movimentos do Pel sob vistas e fogos do inimigo e os movimentos para as mudanças de frente e formação e Comandar o Pel Fzo Mtz e suas frações na maneabilidade. O Pelotão de Fuzileiros Blindado - a. O GC Bld - Descrever a organização em pessoal e material do GC Bld; Praticar as formações adotadas pelo GC Bld; Realizar o embarque e desembarque da VBTP M 113; Praticar a conduta ao desembarcar da VBTP M 113; Praticar os movimentos e deslocamentos sob as vistas e fogos do inimigo e Executar as mudanças de formação, frente e direção. b. O Pel Fzo Bld - Descrever a organização em pessoal e material do Pel Fzo Bld; Operar o material do Pel Fzo Bld; Identificar as possibilidades e limitações do Pel Fzo Bld; Descrever as formações utilizadas na maneabilidade; Descrever a conduta do Pel Fzo Bld; - na mudança de frente, formação e direção; - na progressão sob vistas e fogos do inimigo; Descrever a conduta de um Pel Fzo Bld para a execução dos fogos e Empregar a VBTP M 113 no apoio de fogo ao Pel Fzo Bld. c. A Maneabilidade - Executar as atividades da maneabilidade de um Pel Fzo Bld; Comandar o Pel Fzo Bld e suas frações, na maneabilidade; Executar uma Pista de Aplicação na maneabilidade do Pel Fzo Bld e Executar o apoio de fogo do Pel Fzo Bld. O Pelotão de Apoio - Descrever a organização em pessoal do Pel Ap; Descrever as funções e atribuições de seus principais componentes; Descrever a organização em pessoal e material das Sec orgânicas do Pel Ap; Descrever as atribuições dos componentes das Sec orgânicas

do Pel Ap; Descrever as fases da maneabilidade; Enunciar os comandos nas diversas fases da maneabilidade; Representar por meio de símbolos militares as formações das Pç e Sec do Pel Ap; Selecionar as formações adequadas face a situações criadas; Descrever o remuniciamento das Pç e Sec do Pel Ap; Comandar as Pç e Sec do Pel Ap em diferentes situações táticas no terreno; Emitir comandos na maneabilidade das frações; Executar mudanças de frente e formação; Executar movimentos e deslocamentos sob vistas e fogos do inimigo; Ocupar posições de tiro e Executar as fases da maneabilidade. A Companhia de Comando e Apoio do BIMtz e do BIB – Descrever as características da Cia C Ap / BI Mtz e BIB; Descrever as possibilidades e limitações da Cia C Ap do BI Mtz e do BIB e Citar as frações componentes da C C Ap e suas características. O Pelotão Anti-Carro - Descrever a organização em pessoal e material; Descrever as funções e atribuições dos seus componentes; Descrever as formações utilizadas na maneabilidade; Descrever a conduta do Pel AC nas diversas fases da maneabilidade; Emitir comandos de tiro e Descrever o remuniciamento do Pel AC. O Pel Mrt Me - Descrever a organização do Pel Mrt Me; Descrever as funções e atribuições dos componentes do Pel Mrt Me; Descrever a conduta do Pel Mrt Me nos deslocamentos e no carregamento de material. Executar a conduta de um Pel Mrt para a execução dos fogos; Emitir corretamente os comandos previstos; Executar as atividades da maneabilidade do Pel Mrt Me e Comandar frações, até nível Pel Mrt Me, na maneabilidade. O Pel de Comunicações - Descrever a organização em pessoal e material; Citar a missão do Pel Com; Descrever o emprego do material do Pel Com; Descrever as possibilidades e limitações do Pel Com e Descrever as funções e atribuições dos seus componentes. O Pel de Comando – Descrever a organização em pessoal e material; Citar a missão do Pel Cmdo; Descrever o emprego do material do Pel Cmdo; Descrever as possibilidades e limitações do Pel Cmdo e Descrever as funções e atribuições dos seus componentes. O Pel de Exploradores do BIB - Descrever a organização em pessoal e material; Citar a missão do Pel Expl; Descrever o emprego do material do Pel Expl; Descrever as possibilidades e limitações do Pel Expl e Descrever as funções e atribuições dos seus componentes. O Pel de Suprimento - Descrever a organização em pessoal e material; Citar a missão do Pel Sup; Descrever o emprego do material do Pel Sup; Descrever as possibilidades e limitações do Pel Sup; Descrever as funções e atribuições dos seus componentes. Descrever a organização em pessoal e material; Citar a missão do Pel Mnt; Descrever o emprego do material do Pel Mnt; Descrever as possibilidades e limitações do Pel Mnt e Descrever as funções e atribuições dos seus componentes. Objetivos Integradores - Dirigir, orientar e propiciar modificações nas atitudes dos membros da fração que lhe é subordinada, visando a atingir os objetivos da maneabilidade (LIDERANÇA); Agir, de forma adequada e oportuna, sem depender de ordem ou decisão superior (INICIATIVA); Manter-se em ação continuamente a fim de executar uma tarefa vencendo as dificuldades encontradas (PERSISTÊNCIA); Suportar, pelo maior tempo possível, a fadiga resultante de esforços físicos e mentais, mantendo a eficiência (RESISTÊNCIA) e Adaptar-se a situações de restrição e privação, mantendo a eficiência (RUSTICIDADE).

UN II – ORGANIZAÇÃO DO TERRENO - Espaldões das armas coletivas - Descrever as principais características dos espaldões para a Mtr MAG, Mrt 60 L, Mrt Me, CSR de 84 mm e de 106 mm e Construir os espaldões para a Mtr MAG, Mrt 60 L, Mrt Me, CSR de 84 e de 106 mm. Fortificações - Descrever os princípios que regem a preparação do terreno para o combate; Descrever a classificação das fortificações de campanha; Explicar a prioridade dos trabalhos de organização do terreno e Descrever a classificação e os tipos de obstáculos. Objetivos Integradores - Manter-se em ação continuamente a fim de executar uma tarefa vencendo as dificuldades encontradas (PERSISTÊNCIA); Suportar, pelo maior tempo possível, a fadiga resultante de esforços físicos e mentais, mantendo a eficiência (RESISTÊNCIA) e Adaptar-se a situações de restrição e privação, mantendo a eficiência (RUSTICIDADE).

TÉCNICAS MILITARES

UN I – VBTP M113 - A VBTP M-113 - Citar as características da VBTP M 113; Explicar as possibilidades e limitações da VBTP M 113 e Identificar as partes componentes da VBTP M 113. A guarnição e a conduta auto da VBTP M-113 - Integrar a guarnição da VBTP M113 executando as atribuições da guarnição demonstrando a capacidade de agir de acordo com as normas que regem as relações interpessoais(CIVILIDADE) e a capacidade de estabelecer interação com as pessoas propiciando um ambiente cordial (SOCIABILIDADE); Praticar a manutenção de 1º escalão; Executar a conduta na condução da VBTP M 113 em terreno variado e Praticar a conduta auto, nas seguintes situações: - transposição de um curso de água.- manobra de força. e - reboque. A preparação da VBTP M-113 para o combate - Identificar o material necessário para a preparação da VBTP M 113 para o combate e Executar a preparação da VBTP M 113 para o combate. Objetivo integrador - Conduzir a VBTP M 113 em terreno variado através de uma pista de aplicação.

UN II – COMUNICAÇÕES - Conjunto-Rádio Grupo III - Descrever a utilização dos conjuntos-rádio do Gp III nas Unidades de Infantaria; Instalar os conjuntos-rádio do Gp III; Operar os conjuntos-rádio do Gp III; Executar a Mnt de 1º Esc dos Cj Rd do Gp III e Avaliar o emprego dos conjuntos rádio do Gp III, face as suas características. Conjunto-Rádio Grupo IV - Descrever a utilização dos conjuntos-rádio do Gp IV nas Unidades de Infantaria; Instalar os conjuntos-rádio do Gp IV; Operar os conjuntos-rádio do Gp IV; Operar o EB11-ERC 620 em salto de freqüência; Executar a manutenção de 1ºEscalão do conjunto-rádio do Gp IV e Avaliar o emprego dos conjuntos-rádio do Gp IV, face as suas características. Conjunto-Rádio Grupo VIII - Descrever a utilização dos conjuntos-rádio do Gp VIII nas unidades de Infantaria; Instalar o conjunto-rádio do Gp VIII; Operar o conjunto-rádio do Gp VIII; Executar a manutenção de 1º escalão do conjunto-rádio do Gpt VIII e Avaliar o emprego dos conjuntos-rádio do Gp VIII, face as suas características. Antena MOD PT 3089 UIEC - Descrever a utilização da Antena MOD PT 3089 UIEC no âmbito das Unidades de Infantaria; Instalar e empregar a antena MOD PT 3089 UIEC; Executar a manutenção de 1º escalão da antena MOD PT 3089 UIEC e Avaliar o emprego da antena, face as suas características.

UN III – EMPREGO DO ARMAMENTO - Morteiro Leve 60 mm - Citar as características do morteiro leve 60 mm; Identificar as partes principais do Mrt L; Desmontar o Mrt L; Identificar os principais acessórios e sobressalentes do Mrt L; Identificar os tipos de munição do Mrt L; Identificar os componentes da munição; Descrever o funcionamento das Granadas Mrt L; Idt o Mat de pontaria; Idt os componentes do Mat pontaria; Realizar leitura e registrar derivas e alças; Armar e desarmar o Mrt L 60 mm; Executar a pontaria; Sanar os incidentes de tiro e Executar a manutenção do Mrt L. Técnica de tiro do Mrt L 60 mm - Determinar as causas da dispersão; Utilizar corretamente uma tabela ou régua de tiro; Emitir comandos de tiro inicial e subseqüente; Determinar dados iniciais de tiro; Utilizar as regras para condução e observação do tiro; Executar transportes de tiro; Selecionar modalidades de eficácia para bater objetivos de natureza diferentes; Identificar as partes do C Pos; Descrever as finalidades do C Pos; Utilizar o C Pos para determinar dados iniciais de tiro e correção do tiro; Identificar os processos para localização de alvos; Emitir mensagens de tiro; Transformar Msg em comandos de tiro e Utilizar boletins e roteiros de tiro do OA. Tiro do Mrt L 60 mm - Executar o tiro real diurno; Executar o tiro real noturno; Empregar o roteiro de boletim de Tir do AO; Executar o trabalho do OA e Executar a Mnt de 1º Escalão. Mrt Médio 81mm RO - Descrever as características do Mrt Me; Descrever a constituição do Mrt Me; Armar e desarmar o Mrt Me; Executar a Mnt de 1º escalão do Mrt Me; Descrever a constituição do Eqp de Pontaria C2 TRILUX; Manejar o Eqp de Pont C2 TRILUX; Calibrar o Eqp de Pont C2 TRILUX; Explicar o funcionamento da munição; Descrever as medidas de segurança; 10- Descrever os incidentes de tiro e preparar a granada para o tiro. Técnica de tiro do Mrt Me - Descrever os processos mais utilizados para apontar o pelotão de Mrt Me em paralelo; Apontar o Pel Mrt Me em paralelo utilizando o Ap Pont; Apontar o Pel Mrt Me em paralelo utilizando a bússola; Nivelar e apontar o Mrt Me nas balizas de pontaria; Referir visadas e realinhar balizas; Descrever o princípio fundamental do tiro de Mrt Me; Descrever o desdobramento do Pel Mrt Me para o tiro; Aplicar a correta terminologia na condução do tiro; Estabelecer os alvos apropriados para o Mrt Me; Descrever o trabalho do OA no tiro; Descrever os processos para a localização de alvos; Descrever a seqüência dos elementos da Msg inicial; Descrever os processos de ajustagem; Descrever os elementos da Msg subseqüente; Aplicar os processos para a determinação dos dados iniciais de tiro; Descrever as atribuições e funções dos componentes da C Tir; Descrever os registros da central de tiro; Preparar os comandos de tiro (inicial e subseqüente); Solucionar , empregando a fórmula do milésimo, a ajustagem dos diferentes tipos de feixes; Descrever as correções especiais necessárias para bater alvos em larga frente e alvos profundos; Descrever a constituição do Transferidor (PROTRACTOR) e da Régua (disco) de Tiro do Mrt Me; Descrever a constituição da Prancheta de Tiro (PT) – PTT/PTO - do Mrt Me; Utilizar o Transferidor (PROTRACTOR) e a Régua (disco) de Tiro do Mrt Me; Utilizar a Prancheta de Tiro (PT) – PTT/PTO - do Mrt Me; Identificar a finalidade dos instrumentos do Mrt Me utilizados na condução do tiro. Obs (PTO); Descrever a constituição do Computador de Tiro (MORZEN); Descrever as finalidades do Computador de Tiro; Utilizar o Computador de Tiro para determinar dados iniciais e subseqüentes de tiro e Utilizar o Computador de Tiro para cumprir missões combinadas de tiro (AE ou Fum / Ilm). Tiro do Mrt Me - Conduzir uma missão de tiro real utilizando a PTO; Realizar a regulação do tiro diurno do Pel; Ajustar os diferentes tipos de feixe; Realizar transporte de tiro; Realizar a regulação do tiro noturno do Pel; Conduzir uma missão de tiro real noturna com granada iluminativa e Executar a Mnt de 1º Escalão. Can SR 84 mm Karl Gustaf - Citar as características do Can 84 SR; Utilizar os acessórios e sobressalentes do Can 84 SR; Desmontar o canhão; Identificar as partes e peças do canhão; Descrever as fases e operações do funcionamento; Identificar os dispositivos de segurança do canhão; Montar o canhão; Executar a manutenção de 1º escalão; Identificar a mira simples e a mira normal; Identificar as partes da luneta de pontaria; Descrever a utilização da luneta de

pontaria; Identificar os tipos de Mun do Can 84 SR; Descrever o funcionamento das granadas; Descrever as medidas de segurança e precauções no manuseio da munição; Descrever a técnica de emprego das granadas do CSR 84 mm; Sanar incidentes de tiro; Realizar a visada pela alma com a mira simples e a mira normal e Identificar o subcalibre e descrever seu funcionamento. CSR 106 mm - Citar as características do Can 106 SR; Descrever a divisão do canhão; Identificar os acessórios e sobressalentes; Desmontar e montar o canhão; Identificar as partes e peças do canhão; Descrever o funcionamento do canhão; Executar a manutenção de 1º escalão; Citar as características do Fz apontador; Desmontar e montar o Fz apontador; Descrever o funcionamento do Fz apontador; Identificar as peças componentes do Fz apontador; Identificar os tipos de Mun do Can 106 SR e do Fz Apont e sua classificação e citar as medidas de segurança e precauções no manuseio da munição. Técnica de tiro do CSR 84 - Praticar as posições do atirador; Emitir os comandos de tiro; Realizar o alinhamento dos sistemas; Identificar incidentes de tiro e sanar incidentes de tiro. Técnica de tiro do CSR 106 mm - Descrever a utilização da luneta M 92 D(Can 106); Praticar as posições do atirador; Emitir os comandos de tiro; Realizar o alinhamento dos sistemas; Identificar incidentes de tiro e Sanar incidentes de tiro. Tiro do CSR 84 e 106 mm – Executar o tiro diurno com o subcalibre do Can 84 mm; Executar o tiro diurno com o Can SR 84 e Can SR 106; Executar o tiro noturno com o Can SR 84 mm; Emitir os comandos de tiro; Adotar as medidas de segurança para a realização do tiro e Executar a Mnt de 1º Escalão. Técnica do Material da Mtr L - Descrever as características materiais, a montagem e a desmontagem da Mtr; Descrever os elementos da trajetória; Explicar o cone de dispersão; Explicar a influência do terreno numa zona batida; Explicar a diferença entre um Gpt de tiro preciso, regulado e justo e Executar os tipos de tiro em relação a tropa Amiga e ao Inimigo. Técnica de tiro da Metralhadora leve – Representar graficamente as zonas rasadas, as perigosas e os ângulos mortos; Selecionar o gênero e regime de tiro para bater um alvo dado; Descrever os aspectos básicos de controle e ajustagem do tiro; Calcular as margens de segurança para o tiro no intervalo ou flanco de tropa amiga; Executar a preparação do tiro no intervalo ou flanco de tropa amiga; Determinar a possibilidade de tiro sobre Obt e Tr amiga; Determinar os limites de segurança; Determinar os alvos de segurança; Amarrar o tiro pelos processos de clinômetro, balizas e estacas; Determinar os dados necessários a execução da pontaria indireta em períodos de pouca visibilidade e à noite; Descrever os cuidados na preparação e execução do tiro amarrado; Determinar os dados de tiro para a pontaria indireta; Descrever o tiro mascarado; Preparar o tiro mascarado na seqüência das operações; Ajustar o tiro; Amarrar o tiro; Determinar todos os dados para execução de uma missão de tiro; Identificar as finalidades do roteiro de tiro e Confeccionar um esboço de tiro. Tiro Mtr L - Preencher um boletim de amarração de tiro; Confeccionar um esboço de tiro na posição; Preencher um boletim de amarração com os alvos do setor determinado; Executar o Tiro Direto e o Tiro Mascarado e Executar a Mnt de 1º Escalão. Objetivos Integradores - Agir de acordo com as normas que regem as relações interpessoais, como integrantes das respectivas guarnições das metralhadoras (CIVILIDADE); Estabelecer interação com os demais integrantes das guarnições propiciando um ambiente cordial (SOCIABILIDADE); Lidar com os companheiros sem ferir susceptibilidades (TATO); Controlar as próprias reações para continuar a agir, apropriadamente, nas diferentes situações (EQUILÍBRIO EMOCIONAL) e Agir de forma firme e destemida, diante de situações difíceis e perigosas, seguindo as normas de segurança (CORAGEM).

GRUPO III

ORGANIZAÇÃO, PREPARO E EMPREGO DA FORÇA TERRESTRE

UN I - INSTRUÇÃO ESPECIAL - Operações Especiais: a. Generalidades; b. Definição; c. Características; d. Considerações sobre o Emprego das Operações Especiais; e. Infiltração Tática - Definir operações especiais; Citar as características das operações especiais e Reconhecer uma infiltração tática, num quadro de guerra regular. Normas de Comando de Patrulha: a. Generalidades; b. Considerações Básicas; c. Fases de uma Missão de Patrulha - Recebimento da Missão - Planejamento e Preparação - Cumprimento da Missão - Atividades Complementares; d. Normas de Comando - Estudo Sumário da Missão - Plj da Utilização do Tempo - Planejamento Preliminar - Ordem Preparatória - Reconhecimentos - Planejamento Detalhado - Ordem à Patrulha - Inspeção Inicial - Ensaios - Inspeção Final; e. Caderneta de Planejamento e f. Atribuições e Responsabilidades na Patrulha - Definir patrulha; Enumerar os tipos de operações de patrulha; Citar as fases de uma missão de patrulha; Compreender as normas de comando para o planejamento de uma missão de patrulha; Citar as atribuições e responsabilidades de cada integrante de uma patrulha, para uma fração de valor pelotão; Realizar o planejamento de missão de patrulha, seguindo as normas de comando, para uma fração de valor pelotão; Empregar a caderneta de planejamento na preparação de uma patrulha, para uma fração de valor pelotão e Realizar as tarefas propostas com empenho e afinco (DEDICAÇÃO). Patrulha de

Emboscada: a. Generalidades; b. Fatores de Êxito; c. Classificação das Emboscadas; d. Organização da Patr; e. Formações Adotadas na Realização de uma emboscada; f. Condutas a serem adotadas; g. Causas de Fracasso da Patr e h. Orientação ao Comandante - Definir uma emboscada; Citar os fatores de êxito numa emboscada; Classificar os tipos de emboscada; Descrever a organização e as formações adotadas por uma patrulha de emboscada e Compreender as peculiaridades e o planejamento de uma patrulha de emboscada. Patrulha Motorizada: a. Generalidades; b. Preparação das Viaturas; c. Peculiaridades; d. Planejamento; 1) Plano Tático Terrestre, 2) Plano de Deslocamento - Organização para o Mvt - Processos de Penetração - Processos de Progressão - Condutas em Pontos Críticos e Áreas Perigosas e - Ação no Contato com o Inimigo, 3) Plano de Carregamento e Embarque - Fundamentos, 4) Ação no Objetivo e 5) Retraimento - Definir Patrulha Motorizada; Descrever os cuidados a serem adotados na preparação das viaturas; Reconhecer a organização para o movimento, os processos de penetração e de progressão e as condutas a serem adotadas ao abordar pontos críticos e ao contatar o inimigo em uma Patrulha Motorizada e Compreender as peculiaridades e o planejamento de uma Patrulha Motorizada. Patrulha Ribeirinha: a. Generalidades; b. Definição de Patr Ribeirinha; c. Organização; d. Peculiaridades e e. Planejamento, 1) Plano Tático Terrestre, 2) Plano de Deslocamento Fluvial - Processos de Deslocamento - Formações para o Dsl - Locais de Dbq, 3) Plano de Carregamento e Emb - Fundamentos e 4) Ação no Objetivo - Ação Fluvial com Bloqueio Terrestre e - Ação Terrestre com Bloqueio Fluvial - Definir Patrulha Ribeirinha; Descrever a organização, as formações adotadas e os processos de deslocamento de uma Patrulha Ribeirinha e Compreender as peculiaridades e o planejamento de uma Patrulha Ribeirinha. Patrulha Aeromóvel: a. Generalidades; b. Definição de Operações Aeromóveis; c. Tipos de Operações Amv; d. Peculiaridades e e. Planejamento; 1) Plano Tático Terrestre, 2) Plano de Desembarque - Zona de Dbq Principal - Zona de Dbq Alternativa, 3) Plano de Movimento Aéreo e 4) Plano de Carregamento e Emb - Fundamentos - Definir operação aeromóvel; Enumerar os tipos de operações aeromóveis e Compreender as peculiaridades e o planejamento de uma operação aeromóvel. Evasão: a. Generalidades; b. Definições; c. Evasão Auxiliada - Rede de Auxílio à Fuga e Evasão - Linha de Auxílio à Fuga e Evasão; d. Procedimentos do Evadido e e. Considerações Finais - Definir evasão e evasão auxiliada; Descrever os aspectos referentes a uma evasão e Compreender as peculiaridades da realização de uma evasão auxiliada, do território inimigo para as linhas amigas. Apronto Operacional - Realizar o aprestamento para o cerimonial e para o estágio, conforme as orientações contidas no informativo ao curso; Apresentar-se aprestado com todo o material e equipamento previstos para a realização do estágio; Preparar seu equipamento e armamento individual conforme as orientações recebidas (DEDICAÇÃO); Antecipar-se no planejamento ou execução de tarefas, independente de orientação do instrutor (INICIATIVA) e Manter em boas condições o material e/ou instalações sob sua responsabilidade (ZELO). Objetivos Integradores – Planejar e comandar uma patrulha de valor pelotão, na realização de operações especiais, dentro de um quadro de guerra regular; Realizar Blz, Emb, deslocamento e Dbq de Helcp, com uma fração de valor pelotão, na realização de uma Patrulha, dentro de um quadro de guerra regular; Navegar com uma embarcação militar, aplicando a técnica fluvial, com uma fração de valor pelotão, na realização de uma Patrulha, dentro de um quadro de guerra regular; Realizar uma infiltração a nado, a fim de abordar o objetivo, num assalto ribeirinho; Realizar a orientação e a navegação terrestre e / ou fluvial na execução de uma Patrulha, com uma fração de valor pelotão, dentro de um quadro de guerra regular; Empregar diversos armamentos orgânicos de uma fração valor pelotão, além de explosivos e destruições, na realização de uma Patrulha, dentro de um quadro de guerra regular; Realizar uma infiltração tática através das linhas inimigas, com uma fração de valor pelotão, na realização de uma Patrulha, dentro de um quadro de guerra regular; Realizar uma evasão auxiliada do território inimigo para as linhas amigas, dentro de um quadro de guerra regular; Superar-se face às dificuldades decorrentes de um fato, ambiente ou atividade novos (ADAPTABILIDADE); Transpor as dificuldades, confiando no seu sucesso (AUTOCONFIANÇA); Participar ativamente das atividades, contribuindo para o trabalho do grupo (COOPERAÇÃO); Enfrentar, sem hesitar, as situações de risco que se apresentem (CORAGEM); Apresentar soluções inovadoras para os problemas que surjam (CRIATIVIDADE); Selecionar, com convicção, a melhor linha de ação (DECISÃO); Empenhar-se com afinco na preparação e execução das atividades (DEDICAÇÃO); Distribuir os trabalhos pelo grupo e supervisioná-los de forma adequada e eficiente (DIREÇÃO); Manter-se sob controle, diante de situações de desgaste, tensão ou risco (EQUILÍBRIO EMOCIONAL); Modificar ou ajustar a linha de ação, adequando o planejamento ou a execução da missão às novas condicionantes (FLEXIBILIDADE); Antecipar-se no planejamento ou execução de tarefas, independente de orientação do instrutor (INICIATIVA); Comandar com entusiasmo e justiça, fazendo prevalecer as suas linhas de ação pelo argumento, impondo-se pela competência e pelo exemplo e promovendo a coesão do grupo (LIDERANÇA); Planejar e cumprir a missão de forma metódica, numa

sequência lógica (ORGANIZAÇÃO); Prosseguir, de forma insistente, na execução de tarefas, até alcançar o objetivo final (PERSISTÊNCIA); Manter o bom rendimento na execução de tarefas, a despeito da fadiga física e mental (RESISTÊNCIA); Cumprir as missões no prazo estabelecido, seguindo as normas de segurança e admitindo as consequências dos seus erros (RESPONSABILIDADE) e Manter em boas condições o material e/ou instalações sob sua responsabilidade (ZELO).

UN II – ORDEM UNIDA – Ordem unida a pé – Executar os movimentos com arma a pé firme; Executar o "cobrir" e "perfilar"; Executar deslocamentos e voltas; Executar a continência em forma e Comandar uma fração de tropa na Ordem Unida a pé firme. Objetivos Integradores - Demonstrar atitudes e porte condizentes com os padrões militares (APRESENTAÇÃO) e Conduzir e coordenar uma sessão de ordem unida para um pelotão (DIREÇÃO).

UN III – SIMEB - Instrução Individual - Descrever a estrutura e a concepção do SIMEB conforme seus períodos e as respectivas fases do ano de instrução; Descrever os fundamentos metodológicos da instrução individual; Descrever objetivos individuais de instrução (OII) e Selecionar e formular objetivos intermediários de instrução baseado no PP. Adestramento Básico e Planejamento -Descrever adestramento; Destacar os aspectos principais do programa de adestramento e processos de avaliação conforme seus conceitos básicos, suas atividades e seus objetivos; Planejar a instrução de uma fração utilizando os objetivos e os programas de adestramento, os critérios e os mecanismos do sistema de avaliação; Destacar do Programa Padrão de Adestramento (PPA) os aspectos relevantes para o planejamento do adestramento de uma SU; Confeccionar um QTS e Optar pela alternativa mais adequada, em tempo útil e com convicção, no planejamento de instrução de uma fração (DECISÃO).

UN IV – VIATURAS DOS SISTEMAS DE ARMAS – Classificação das Viaturas Militares - Descrever as normas para classificação das viaturas militares do Exército Brasileiro; Identificar as viaturas em uso no Exército Brasileiro; Descrever os tipos de viaturas sobre rodas e sobre lagartas e Aplicar as normas referentes ao registro das viaturas em uso no Exército Brasileiro associando o número de registro com sua respectiva viatura (ORGANIZAÇÃO). Viaturas sobre Rodas não Blindadas: a. Generalidades; b. Sistemas Fundamentais das viaturas – Integrar os diversos sistemas fundamentais das viaturas sobre rodas, relacionando seu funcionamento. c. Manutenção de 1º escalão - Identificar os procedimentos exigidos na realização da manutenção de 1º escalão; Executar a manutenção de 1º escalão em uma viatura com falhas comuns de manutenção (ZELO); Orientar a execução da manutenção de 1º escalão em Vtr sobre rodas e Avaliar a manutenção de 1º escalão de uma viatura sobre rodas. Viaturas Blindadas: a. Generalidades; b. Componentes peculiares das viaturas blindadas - Identificar os diversos componentes peculiares das viaturas blindadas, juntamente com as evidências e sintomas das panes mais comuns e os procedimentos básicos para evitá-las. c. Manutenção de 1º escalão - Identificar os procedimentos exigidos na realização da manutenção de 1º escalão; Executar manutenção de 1º escalão em uma viatura blindada com falhas comuns de manutenção (ZELO); Orientar a execução de uma manutenção de 1º escalão de viaturas blindadas e Avaliar a manutenção de 1º escalão de uma viatura blindada. Viaturas Especiais: a. Generalidades; b. Viaturas especiais - Identificar os diversos tipos de viaturas especiais existentes no Exército Brasileiro; c. Componente - Identificar os diversos componentes peculiares das viaturas especiais, juntamente com as evidências e sintomas das panes; mais comuns e os procedimentos básicos para evitá-las; Identificar os procedimentos exigidos na realização da manutenção de 1º escalão; Executar manutenção de 1º escalão em uma viatura especial com falhas comuns de manutenção (ZELO); Orientar a execução de uma manutenção de 1º escalão de viaturas especiais e Avaliar a manutenção de 1º escalão de uma viatura especial. Objetivos integradores - Classificar e obter o registro das viaturas em uso no EB e Conduzir e avaliar a manutenção de 1º escalão das viaturas existentes no Exército Brasileiro.

GRUPO IV

TIRO

UN I – TIRO DE FUZIL - Tiro de fuzil - Realizar o tiro de Fuzil dos MEE 11, MEE 12 e MEE 13; Realizar o tiro de Fuzil em situação de combate simulado; Aplicar as Normas de Segurança e Procedimento no Estande e Executar a manutenção de 1º escalão para o tiro. Objetivos integradores - Aplicar os fundamentos de tiro na execução do tiro; Demonstrar segurança na execução do tiro (AUTOCONFIANÇA); Manter a calma na execução do tiro (EQUILÍBRIO EMOCIONAL) e Evidenciar zelo no trato com o fuzil (ZELO).

UN II – TIRO DE PISTOLA - Tiro de pistola - Realizar o tiro de Pistola dos MEE 08, MEE 09; Realizar o tiro de Pistola em situação de combate simulado; Aplicar as Normas de Segurança e Procedimento no Estande e Executar a manutenção de 1º escalão para o tiro. Objetivos integradores - Aplicar os fundamentos

de tiro na execução do tiro; Demonstrar segurança na execução do tiro (AUTOCONFIANÇA); Manter a calma na execução do tiro (EQUILÍBRIO EMOCIONAL) e Evidenciar zelo no trato com a pistola (ZELO).
UN III – INTRODUÇÃO AO TIRO DE COMPETIÇÃO - Organização de competições - Descrever os aspectos da preparação, administração e conduta de uma competição de tiro. Provas de tiro - Descrever as diversas provas de tiro regulamentadas pela ISSF e Descrever as diversas provas de tiro regulamentadas pelo CISM e CDE. Objetivos integradores - Conduzir uma prova de tiro e Demonstrar segurança e convicção na condução de uma prova de tiro (EQUILÍBRIO EMOCIONAL).

GRUPO I

TREINAMENTO FÍSICO MILITAR I (UTILITÁRIO/DESPORTO)
UN I – NATAÇÃO 1.Natação fardado, salto da plataforma e nado submerso fardado – Realizar o salto da plataforma nas condições estabelecidas pelas NIAE; Transpor a 7 metros, submerso, fardado, nas condições estabelecidas pelas NIAE; Executar o nado de 50 m, fardado, nas condições estabelecidas pelas NIAE e – Suportar a fadiga resultante dos treinamentos de natação fardado, mantendo a eficiência (RESISTÊNCIA). Revelar capacidade de agir de forma firme e destemida no salto da plataforma (CORAGEM). Controlar as próprias reações e continuar agindo, apropriadamente, nas diferentes situações (EQUILÍBRIO EMOCIONAL).
UN II –PISTA DE PENTATLO MILITAR Pista de Pentatlo Militar. a. Executar a transposição de obstáculos na PPM, nas condições estabelecidas pelas NIAE. b. Revelar capacidade de agir de forma firme e destemida na ultrapassagem dos obstáculos (CORAGEM). c. Suportar a fadiga resultante dos treinamentos das provas atléticas (RESISTÊNCIA).
UN III – DESPORTO - GRANDES JOGOS. a. Identificar os procedimentos para a execução dos grandes jogos. b. Participar de sessões de: 1) futebol gigante; 2) bola militar; 3) basquetebol gigante. c. Estabelecer relações amistosas com superiores, pares e subordinados (CAMARADAGEM). d. Contribuir espontaneamente para o trabalho de alguém e/ou de uma equipe (COOPERAÇÃO).

TREINAMENTO FÍSICO MILITAR II (NEUROMUSCULAR)
UN I – TREINAMENTO NEUROMUSCULAR E COMPLEMENTAR – Ginástica Básica – Executar os exercícios da ginástica básica. b. Executar o abdominal nas condições estabelecidas pelas NIAE. c. Demonstrar disposição para o aprimoramento de sua capacidade física (DEDICAÇÃO). d. Suportar a fadiga resultante dos treinamentos neuromusculares (RESISTÊNCIA). 2. Ginástica com toros a. Executar os exercícios da ginástica com toros. b. Demonstrar disposição para o aprimoramento de sua capacidade física (DEDICAÇÃO).
c. Suportar a fadiga resultante dos treinamentos neuromusculares (RESISTÊNCIA). 3. Treinamento em circuito. Executar exercícios da Pista de Treinamento de Circuito (PTC). b. Executar a passagem na PTC c. Executar a flexão na barra nas condições estabelecidas pelas NIAE. d. Demonstrar disposição para o aprimoramento sua capacidade física (DEDICAÇÃO). e. Suportar a fadiga resultante dos treinamentos neuromusculares (RESISTÊNCIA). 4. Pista de Corda / Subida na corda. a. Executar a transposição da pista, aplicando as técnicas de ultrapassagem dos obstáculos. b. Executar a subida na corda vertical de acordo com as condições estabelecidas pelas NIAE. c. Agir de forma firme e destemida diante de situações perigosas e difíceis, seguindo as normas de segurança (CORAGEM). d. Controlar as próprias reações e continuar agindo, apropriadamente, nas diferentes situações (EQUILÍBRIO EMOCIONAL). e. Demonstrar disposição para o aprimoramento de sua capacidade física (DEDICAÇÃO). f. Suportar a fadiga resultante dos treinamentos neuromusculares (RESISTÊNCIA).

TREINAMENTO FÍSICO MILITAR III (CARDIOPULMONAR)
UN I – TREINAMENTO CARDIOPULMONAR 1. Corrida Rústica .a Executar a corrida rústica na distância de 3250 m nas condições estabelecidas pelas NIAE. b. Demonstrar disposição para o aprimoramento da técnica de corrida (DEDICAÇÃO). c. Suportar a fadiga resultante dos treinamentos de corrida (RESISTÊNCIA).2. Corrida Rústica Fardado.a Executar a corrida rústica fardado, na distância de 5000 m nas condições estabelecidas pelas NIAE.b. Demonstrar disposição para o aprimoramento da técnica de corrida (DEDICAÇÃO)c. Suportar a fadiga resultante dos treinamentos de corrida (RESISTÊNCIA).

GRUPO II

EMPREGO TÁTICO

UN I – TRABALHO DE COMANDO DO COMANDANTE DA COMPANHIA – 1.Sequência do Trabalho de Comando - Explicar as fases do método de trabalho de comando do Cmt SU; Descrever as ações do Cmt SU em cada uma das fases do trabalho de comando e Realizar as ações do trabalho de comando do Cmt SU em uma operação.2. Inteligência de Combate (PITCI) . Explicar o Processo de Integração Terreno, Condições Meteorológicas e Inimigo. 3. Estudo de Situação do Cmt da Cia - Analisar a missão; Analisar o terreno e as condições climáticas e meteorológicas, concluindo sobre a sua influência nas operações; Analisar o inimigo, concluindo sobre suas possibilidades e limitações (deficiências) no escalão considerado; Analisar os meios disponíveis; Elaborar, analisar e comparar linhas de ação e Redigir a decisão. Estudo de Situação do Cmt Pel em Cmb - Realizar as normas de comando do Pel Fzo; Realizar o Estudo de Situação do Pel, dando ênfase na análise do terreno e Decidir sobre a linha de ação a ser adotada pelo Pel, considerando os fatores da decisão. 4. Ordem de Operações do Btl, Cia SU e Pel – Interpretar a O Op do Cmt da U (até o Par 3º); Confeccionar a O Op do Cmt da SU e do Pel (até o Par 3º) e Transmitir a O Op do Cmt da SU e do Pel. 5. Exercício de P Obs a. Elaborar, analisar e comparar as linhas de ação. b. Redigir a decisão.

UN II – FUNDAMENTOS DAS OPERAÇÕES – 01. Operações Ofensivas – Descrever os fundamentos e os conceitos básicos que regem o emprego da Infantaria nas Op Ofs. Explicar a missão da infantaria nas Op Ofs. Descrever as formas de manobra. Identificar os tipos de operações ofensivas. Identificar as forças empregadas na ofensiva. Identificar as principais características das Op Ofs. 02. Operações Defensivas a. Descrever os fundamentos da defesa. b. Descrever os tipos de Op Def e suas formas de manobra. c. Explicar o escalonamento do sistema defensivo; d. Descrever as forças empregadas nas operações defensivas. e. Explicar a missão da Infantaria nas operações defensivas.

UN III –– COMUNICAÇÕES MILITARES 1. Fundamentos das Comunicações a. Descrever a estrutura geral e a constituição do SisComEx. b. Identificar as finalidades do Sis Com Mil. c. Interpretar os princípios de emprego das Comunicações. d. Identificar os sistemas de Com estabelecidos nas GU, U, SU e frações. e. Descrever as fases do Plj de Com na SU. f. Confeccionar o quadro das Lig Nec para uma SU e fração. g. Interpretar o Pár 5º da O Op do Btl. 2. Posto de Comando a. Explicar os conceitos básicos referentes a PC b. Identificar os fatores de seleção dos locais de PC c. Explicar a distribuição interna das Instalações de Com do PC do Btl. d. Descrever as formas de deslocamento do PC e. Escolher o local do PC da SU face os fatores de seleção. 3. Guerra Eletrônica a. Conceituar Guerra Eletrônica b. Reconhecer os conceitos básicos de guerra eletrônica. a. Identificar o emprego tático da guerra eletrônica nas operações ofensivas e defensivas. 4. Sistema de Comunicações Rádio. a. Identificar as rede-rádio típicas do Btl, da Cia e do Pel. b. Descrever os documentos do SCR. c. Identificar as partes componentes do QRR e do DRR. d. Localizar as informações necessárias no QRR e no DRR do Btl ao Plj de Com da SU. e. Avaliar as possibilidades e limitações do sistema de comunicações rádio da SU e do Pel face aos meios disponíveis. 5.Sistema de Comunicações Físico a. Explicar a classificação dos circuitos. b. Descrever os documentos do SCF. c. Identificar as partes componentes do diagrama de circuitos e da carta itinerário das linhas. d. Localizar as informações necessárias no diagrama de circuitos e na carta itinerário das linhas do Btl ao Plj de Com da SU. e. Avaliar as possibilidades e limitações do SCF da SU e do Pel face aos meios disponíveis. 6. Sistema de Comunicações Mensageiro a. Explicar a classificação dos mensageiros. Descrever os documentos do SCM. c. Identificar as partes componentes da carta itinerário de mensageiros. Localizar as informações necessárias na carta itinerário do Btl ao Plj de Com da SU. e. Avaliar as possibilidades e limitações do SCM da SU e do Pel face aos meios disponíveis. 7. Sistema de Comunicações nas Operações Ofensivas a. Descrever as formas de emprego do sistema nas Operações Ofensivas. b. Planejar as Com rádio da SU e do Pel nas Op Ofs. 8. Sistema de Comunicações nas Operações Defensivas a. Descrever as formas de emprego do sistema nas Operações Defensivas. b. Planejar as Com rádio da SU e do Pel nas Op Def.

UN IV - APOIO DE FOGO 1. Fundamentos do Apoio de Fogo a. Enunciar a classificação dos tiros. b. Citar os órgãos de apoio de fogo. c. Identificar as missões táticas dos órgãos de apoio de fogo. d. Descrever a composição e as atividades do Centro de Coordenação de Apoio de Fogo. e. Identificar os deveres e atribuições do pessoal do Centro de Coordenação de Apoio de Fogo. 2. Planejamento de Fogos na Companhia de Fuzileiros. a. Citar o apoio de fogo disponível. b. Identificar as missões táticas das Seções do Pelotão de Apoio. c. Enunciar as atribuições do pessoal no apoio de fogo na companhia. d. Identificar o grau de controle e a conduta de fogo. e. A Ordem de Operações do Comandante de Companhia referente a Fogos e Pelotão de Apoio. 3. Planejamento de Fogos no Batalhão de Infantaria a. Enunciar a composição do PAF.

b. Identificar os apêndices do PAF. c. Identificar as características do planejamento de fogos. d. Descrever a técnica de lançamento do apoio de fogo. e. Elaborar o Plano de Apoio de Fogo do Batalhão e seus respectivos apêndices. f. Descrever a execução e a coordenação de fogos 4. O Apoio de Fogo do Batalhão e da Companhia na Marcha para o Combate a. Identificar as particularidades do Ap F do Btl e da SU em uma Op de M Cmb. 5. O Apoio de Fogo do Batalhão e da Companhia no Ataque a. Identificar as particularidades do Ap F do Btl e da SU em uma Op de Atq. 6. O Apoio de Fogo do Batalhão e da Companhia no Aproveitamento do Êxito . a. Identificar as particularidades do Ap F do Btl e da SU em uma Op de Apvt Exi. 7. O Apoio de Fogo do Batalhão e da Companhia na Defesa de Área
a. Identificar as particularidades do Ap F do Btl e da SU em uma Op de Def A. 8. O Apoio de Fogo do Batalhão e da Companhia nos Movimentos Retrógrados a. Identificar as particularidades do Ap F do Btl e da SU em uma Op de Mvt Rtgd. 9. A Autodefesa Antiaérea do Batalhão e da Companhia a. Identificar como se processa a autodefesa antiaérea no âmbito do Batalhão de Infantaria.

UN V – APOIO LOGÍSTICO - 1. Fundamentos do Apoio Logístico a. Descrever as atividades logísticas. Enunciar a classificação e os tipos de suprimento. c. Descrever os fluxos de suprimento.2. O Apoio Logístico do Batalhão de Infantaria a. Descrever os trens da U.b. Descrever as instalações logísticas da U.c. Citar as peculiaridades dos suprimentos das classes I, III e V na U.d. Enunciar as atividades de saúde, transporte, manutenção e pessoal na U. 3. O Apoio Logístico da Companhia de Fuzileiros a. Identificar o pessoal e o material envolvidos no Ap Log. b. Interpretar o conteúdo do parágrafo 4º da O Op Btl. c. Descrever as instalações logísticas da área de trens da SU. d. Enunciar os fatores a serem considerados na escolha da área de trens da SU.e. Locar a área de trens da SU.f. Descrever o fluxo de suprimento, particularmente das classes I, III e V. 4. O Apoio Logístico do Batalhão e da Companhia na Marcha para o Combate a. Identificar as particularidades do Ap Log do Btl e da SU em uma Op de M Cmb.5. O Apoio Logístico do Batalhão e da Companhia no Ataque a. Identificar as particularidades do Ap Log do Btl e da SU em uma Op de Atq. 6. O Apoio Logístico do Batalhão e da Companhia Aproveitamento do Êxito a. Identificar as particularidades do Ap Log do Btl e da SU em uma Op de Apvt Exi. 7. O Apoio Logístico do Batalhão e da Companhia na Defesa de Área a. Identificar as particularidades do Ap Log do Btl e da SU em uma Op de Def A. 8. O Apoio Logístico do Batalhão e da Companhia nos Movimentos Retrógrados a. Identificar as particularidades do Ap Log do Btl e da SU em uma Op de Mvt Rtgd.

UN VI – ATAQUE – Fundamentos do Atq a. Descrever os princípios doutrinários de emprego da infantaria no ataque.b. Descrever as medidas de coordenação e controle utilizadas no ataque 2. A Cia Fuz no Atq a. Descrever as peculiaridades do planejamento e execução da Cia Fuz no Atq .3. A Cia Fuz no Atq Noturno e sob condições de visibilidade limitada a. Descrever as peculiaridades do planejamento e execução do Atq Not e sob condições de visibilidade limitada.4. O Pel Fuz no Atq Noturno a. Realizar um Ataque Noturno inserido em um Pel Fuz de uma Cia. 5. Caso Esquemático a. Realizar as normas de comando da Cia em um Atq . b. Realizar o Estudo de Situação da Cia no Atq c. Elaborar a decisão da Cia no Atq d. Redigir e emitir a O Op da Cia no Atq 6. Exercício de P Obs a. Elaborar decisões de conduta no Atq .b. Empregar a conduta para a conquista e consolidação dos objetivos.

UN VII – MARCHA PARA O COMBATE 1. Fundamentos da Marcha para o Combate a. Descrever os Pcp doutrinários da Marcha para o Combate b. Interpretar a missão da Infantaria na M Cmb. c. Descrever os tipos de M Cmb. d. Identificar os tipos de contato. e. Descrever os dispositivos e formações. f. Identificar os graus de segurança. Citar as medidas de coordenação e controle na M Cmb. 2. A Cia Fuz na M Cmb a. Descrever as peculiaridades do planejamento e execução das situações da Cia na M Cmb. 3 . Caso Esquemático a. Realizar as normas de comando da Cia como Esc Cmb do Btl Vgd. b. Realizar o Estudo de Situação da Cia como Esc Cmb do Btl Vgd. c. Elaborar a decisão da Cia como Esc Cmb do Btl Vgd. d. Redigir a O Op da Cia como Esc Cmb do Btl Vgd. e. Realizar o Est Sit do Pel Fuz como Esc Rec na M Cmb f. Emitir a O Op do Cmt Pel Fuz como Esc Rec na M Cmb g. Realizar o Est Sit do Pel Fuz como Esc Cmb na M Cmb h. Emitir a O Op do Cmt Pel Fuz como Esc Com na M Cm 4 . Exercício de P Obs a. Elaborar decisões de conduta do Cmt SU como Esc Cmb do Btl Vgd. b. Descrever a conduta do Pel Fuz como Esc Rec na M Cmb. c. Descrever a conduta do Pel Fuz como Esc Cmb na M Cmb.

UN VIII - APROVEITAMENTO DO ÊXITO/PERSEGUIÇÃO – 01. Fundamentos do Apvt Exi Explicar a finalidade do Apvt Exi. Descrever a organização dos Gpt força do Apvt Exi. Explicar as Crtr e as Mdd Coor Ct do Apvt Exi. Descrever as particularidades da execução do Apvt Exi. Explicar as Mdd Seg para o Apvt Exi. 02. A Cia Fuz no Apvt Exi Descrever as peculiaridades do planejamento e execução da FT Cia Fuz e da Cia no Apvt Exi. b. Descrever as Peculiaridades do planejamento e execução da FT Cia como Fg no Apvt Exi.. 03. O Pel de Exploradores no Apvt Exi Explicar a missão do Pel Expl no Apvt Exi. Descrever o emprego do Pel no Apvt Exi.. 12. Caso Esquemático a. Realizar o Est Sit da Cia Fuz em Apvt

Exi. b. Elaborar e emitir a O Op do Cmt Cia Fuz em Apvt Exi. c. Realizar o Est Sit da Cia Fuz em Perseguição. Elaborar e emitir a O Op do Cmt Cia Fuz em Perseguição. d. Realizar o Est Sit do Pel Fuz Bld em Apvt Exi. f. Elaborar e emitir a O Op do Cmt Pel Fuz Bld em Apvt Exi. g. Realizar o Est Sit do Pel Fuz Bld em Perseguição. h. Elaborar e emitir a O Op do Cmt Pel Fuz Bld em perseguição.

UN IX – DEFESA DE ÁREA E ACOLHIMENTO – 01. Fundamentos da Defesa de Área Identificar a finalidade da defesa de área. Descrever as medidas de Coor Ct e as forças envolvidas na defesa de área. Identificar os fundamentos da defesa na defesa de área. 02. A Cia Fuz na Def A Explicar a missão da Cia Fuz Mtz na Def A. b. Descrever as peculiaridades do planejamento e execução da Def A pela Cia Fuz Mtz no LAADA. c. Descrever as peculiaridades do planejamento e execução da Def A pela Cia Fuz Mtz na Res do Btl. d. Descrever as peculiaridades do planejamento e execução da Def A pela Cia Fuz Nos PAC. 03. Caso Esquemático a. Realizar o estudo de situação face aos fatores da decisão para uma Cia Fuz em 1º Esc na Def A. b. Elaborar a decisão da Def A para uma Cia Fuz em 1º Esc. c. Redigir e emitir a O Op de uma Cia Fuz Mtz em 1º Esc para a Def A..d. Realizar o Estudo de Situação da Cia no Aclh. e. Realizar as normas de comando da Cia numa Op Aclh. f. Redigir e emitir a O Op da Cia no Aclh. g. Realizar o Est Sit do Cmt Pel Fuz, integrante de uma Cia em 1º Esc na ADA. h. Elaborar e emitir a O Op do Cmt Pel para a Def A . i. Realizar o Est Sit e emitir a O Op do Cmt Pel Fuz nos PAC. Realizar o Est Sit do Cmt Pel em apoio a uma Op de Def A. Elaborar e emitir a O Op do Pel para uma Def A. Exercício de PO a. Elaborar as decisões de conduta para a Cia Fuz Mtz em 1º Esc na Def A. b. Descrever a conduta do Pel Fuz, integrante de uma Cia Fuz em 1º Esc na ADA. c. Descrever a conduta do Pel Fuz no profundamento de uma Cia Fzo em 1º Esc na ADA. d. Descrever a conduta do Pel Mrt Me na Def.

UN X - MOVIMENTOS RETRÓGRADOS – 01. Fundamentos do Retraimento e Retirada. Explicar a finalidade do retraimento e da retirada. Descrever os tipos de retraimento e da retirada. c. Descrever as forças empregadas no Ret e na retirada. 03. A Cia Fuz no Retraimento e Retirada a. Explicar a missão da Cia no Ret sob Prss e na Rda. Descrever as peculiaridades do planejamento e da execução do Ret sem Prss pela Cia Fuz Mtz. 04. A Cia Fuz na Ação Retardadora a. Explicar a missão da Cia na Ação Retardadora. b. Descrever as peculiaridades do planejamento e da execução da Ação Retardadora pela Cia Fuz Bld. 05. O Pel Fuz no Retraimento e Retirada a. Explicar a missão do Pel Fuz em um Ret sob Prss e numa Rda. b. Descrever as peculiaridades do planejamento e da execução do Ret sob Prss pelo Pel Fuz, como integrante de uma Cia Res. c. Descrever as peculiaridades do planejamento e da execução do Ret sem Prss pelo Pel Fuz, como integrante de uma Cia de 1º. Esc e de uma Cia Res do Btl. 06. O Pel Fuz na Ação Retardadora a. Explicar a missão do Pel Fuz Bld na Aç Rtrd. b. Descrever as peculiaridades do planejamento e da execução da Ação Retardadora pelo Pel Fuz. 11. Caso Esquemático a. Realizar o Est Sit da Cia para um Ret sob Prss e na Rda. b. Elaborar a decisão da Cia para um Ret sob Prss e na Rda. c. Redigir e emitir a O Op de uma Cia Fuz para um Ret sob Prss e na Rda. d. Realizar o Est Sit da Cia Fuz Bld numa Aç Rtrd. e. Realizar as normas de comando de um Pel Fuz para um Ret sob Prss e uma Rda. f. Realizar o Est Sit do Pel Fuz, integrante de uma Cia de 1º. Esc, no Ret sob Prss e na Rda. g. Elaborar e emitir a O Op do Pel, integrante de uma cia de 1º. Esc, no Ret sob Prss e na Rda. h. Realizar as normas de comando de um Pel Fuz Bld para uma Aç Rtrd. i. Realizar o Est Sit do Pel Fuz Bld para uma Aç Rtrd. j. Elaborar a decisão do Pel Bld para uma Aç Rtrd. l. Redigir e emitir a O Op de um Pel Fuz Bld para uma Aç Rtrd.

UN XI - OPERAÇÕES COMPLEMENTARES 1. Acolhimento a. Descrever a finalidade, as Pcp Crtr, os tipos, e as medidas de Coor Ct de um acolhimento. b. Explicar a missão da Cia Fuz no Aclh. 2. Ultrapassagem a. Descrever a finalidade, as Pcp Crtr, os tipos, e as medidas de Coor Ct de uma ultrapassagem. b. Explicar a missão da Cia Fuz na ultrapassagem.

UN XII – EXERCÍCIOS TÁTICOS. 1. Módulo Tático de Operações Ofensivas. a. Aplicar os fundamentos e os conceitos básicos que regem o emprego da Cia Fuz na M Cmb.b. Comandar a Cia Fuz na M Cmb.c. Comandar o Pel Fuz como Esc Rec na M Cmb.d. Comandar o Pel Ap na M Cmb realizando o apoio à Op da Cia Fuz como Esc Cmb.e . Aplicar os fundamentos e os conceitos básicos que regem o emprego da Cia Fuz no Atq Coor Diu. f Comandar a SU no Atq Coor Diu.g . Aplicar os fundamentos e os conceitos básicos que regem o emprego da Cia Fuz numa Ultrapassagem. h . Comandar a SU numa Ultrapassagem. i . Aplicar os fundamentos e os conceitos básicos que regem o emprego da Cia Fuz no Atq Not. j . Comandar a SU no Atq Not. l. Realizar o Ap F às Op de um Btl Mtz no Atq Coor e de uma Cia Fuz.m . Aplicar os fundamentos e os conceitos básicos que regem o emprego da Cia Fuz no Apvt Exi. n . Comandar a SU no Apvt Exi. o . Comandar o Pel Fuz Bld nas Op Apvt Exi. 1. Módulo Tático de Operações Ofensivas 2. Módulo Tático de

Operações Defensivas a. Realizar, com a Cia Fuz Mtz em 1º Esc, uma Def A. b. Aplicar os fundamentos e os conceitos básicos que regem o emprego da Cia Fuz na Def A. c. Comandar a SU na Def A. d. Aplicar os fundamentos e os conceitos básicos que regem o emprego da Cia Fuz no Acolhimento. e. Comandar a SU no Acolhimento. f. Confeccionar o plano de fogos e o roteiro de tiro do Pel. g. Realizar, com o Pel Fuz em 1º Esc, uma Def A h. Realizar, com o Pel Fuz no Aprf, uma Def A. . i. Realizar o Ap do Pel Ap a uma Op de Def A. j. Realizar o Ap F de Mrt Me às Op de um Btl Mtz na Def A.. Comandar a SU nos retraimentos. m . Apoiar com fogos do Pel Ap uma Op de Ret.. 3. ET de Aproveitamento do Êxito a. Realizar as condutas do Pel e Cia Fuz Bld em Apvt Exi. b. Planejar a conduta do Pel Ap no Apvt Exi. c. Descrever a conduta do Pel Expl no Apvt Exi. d. Comandar o Pel Fuz Bld em Apvt Exi.

TÉCNICAS MILITARES

UN I – MORTEIRO PESADO 120 mm. 1. Mrt P 120 mm Apresentação do Mrt P 120 mm - Aparelho de Pontaria goniômetro-bússola - Munição - a. Citar suas características. b. Identificar suas partes principais. c. Armar e desarmar o morteiro. d. Executar a manutenção de 1º Escalão **.** e. Identificar as partes principais do Equipamento de Pontaria M53. f. Manejar o equipamento de pontaria. g. Descrever o funcionamento do dispositivo de iluminação. h. Calibrar o equipamento de pontaria . i. Citar a finalidade e emprego do GB. j. Enunciar a nomenclatura do GB e suas características. k. Citar os acessórios e sobressalentes do GB. l. Descrever o funcionamento do GB. m. Declinar o GB: movimento, nivelamento, bússola e tripé. n. Identificar os tipos de munição do Mrt P. o. Descrever o funcionamento da munição. p. Enunciar as medidas de segurança. q. Identificar os incidentes de tiro. r. Preparar a granada para o tiro. 2. Técnica de Tiro do Mrt P 120 mm Corretor de Posição - Prancheta de Tiro a. Descrever a finalidade do Corretor de Posição. b. Identificar as partes do Corretor de Posição. c. Utilizar o Corretor de Posição para determinar os dados de tiro. d. Descrever a finalidade dos instrumentos utilizados na condução do tiro. e. Identificar as partes componentes do Transferidor de Locação (T Loc), Transferidor de Derivas e Alcances (TDA), Tabela Gráfica de Tiro (TGA) e Prancheta de Tiro (PT). f. Empregar os instrumentos corretamente. g. Construir uma Prancheta de Tiro Observado (PTO). 2. Técnica de Tiro do Mrt P 120 mm - Observador Avançado – Entrada em Posição Central de Tiro. Descrever o trabalho do OA no tiro. i. Descrever o processo para a localização dos alvos. j. Preparar e transmitir mensagens iniciais e subsequentes. l. Corrigir o tiro do Mrt P. m. Descrever a conduta do OA na ajustagem e em situações especiais. n. Descrever o desdobramento do Pel Mrt P para o tiro. o. Descrever o processo mais utilizado para apontar o Pelotão de Morteiro Pesado em paralelo. p. Apontar o Pelotão de Morteiro Pesado em paralelo, com o GB, utilizando o Lç ou Az M. . Citar o princípio fundamental do tiro Mrt P. r. Citar as atribuições e funcionamento dos componentes da Central de Tiro. s. Identificar os registros da Central de Tiro. . Identificar as partes componentes de um comando de tiro. u. Enunciar os comandos de tiro inicial e subseqüentes. v. Solucionar, empregando a fórmula do milésimo, a ajustagem dos diferentes feixes. w. Descrever as correções especiais necessárias para bater alvos em larga frente e alvos profundos. 3. Tiro do Mrt P 120 mm. a. Conduzir uma missão de tiro real utilizando a PTO. b. Realizar a regulação do tiro do Pelotão. c. Ajustar os diferentes tipos de feixes. d. Realizar transporte de tiro. e. Conduzir uma missão de tiro real noturna com granada iluminativa.

GRUPO III

ORGANIZAÇÃO, PREPARO E EMPREGO DA FORÇA TERRESTRE

UN I – ADMINISTRAÇÃO MILITAR – 1.Gestão de pessoal – a.. Descrever os direitos e prerrogativas dos militares. b. Descrever os motivos de exclusão do militar do serviço ativo. c. Descrever os critérios de promoções nas Forças Armadas. d. Descrever as normas para movimentação de oficiais e praças, com as peculiaridades das localidades tipo 1ª e 2ª categorias. e. Descrever os trabalhos da Comissão de Exame de Contracheques. f. Descrever a sistemática de avaliação de pessoal militar no Exército. g. Realizar os trabalhos de uma Comissão de Exame de Contracheques. Interpretar a Lei de Remuneração dos Militares (LRM) e Pagamento de Pessoal. h. Demonstrar a capacidade de conduzir-se nos trabalhos da Comissão de Exame de Contracheques de forma sistemática e eficiente (ORGANIZAÇÃO). 2. Gestão de material – a. Descrever as normas de recebimento e exame de material que devem ser seguidas pelos oficiais componentes da Comissão de Recebimento e Exame de Material. b. Descrever a sistemática de inclusão em carga do material permanente destinado às frações de uma UA. c. Descrever a sistemática de distribuição de material permanente e de consumo para as frações da UA. d. Descrever o processo de descarga de material em uma UA. e. Descrever a sistemática de transmissão de bens móveis por passagem de função. f. Confeccionar a documentação relativa ao recebimento e exame de material. g. Demonstrar a capacidade de

conduzir-se nos trabalhos da Comissão de Recebimento e Exame de Material de forma sistemática e eficiente (ORGANIZAÇÃO).

UN II - MANUTENÇÃO DE VIATURAS - Sistema de Manutenção do Exército Brasileiro - Identificar os conceitos básicos de manutenção; Listar os objetivos da manutenção; Identificar as categorias e escalões de Mnt utilizados no Exército Brasileiro; Descrever as normas gerais de manutenção e Aplicar os fundamentos das categorias de manutenção. Normas, Técnicas e Procedimentos de Manutenção - Definir as responsabilidades e atribuições do comandante em todos os níveis; Descrever as atribuições do Oficial de Manutenção; Identificar o parecer técnico e as suas finalidades; Identificar o inquérito técnico e suas finalidades; Definir a freqüência da manutenção preventiva; Explicar os procedimentos específicos de manutenção preventiva de 1º escalão. Manutenção na SU - as tabelas de manutenção preventiva de 1º escalão nas viaturas sobre rodas e lagartas; Preparar a SU para inspeção técnica e de comando; Preencher a ficha de serviço de viatura; Descrever o planejamento da manutenção preventiva; Montar a tabela de manutenção preventiva; Identificar o quadro controle da manutenção semestral; Identificar o quadro controle da lubrificação e Conduzir a manutenção preventiva de uma pequena fração da SU (DIREÇÃO). Objetivo integrador - Realizar o controle da Manutenção das Viaturas no âmbito da SU.
UN III – ORDEM UNIDA – Planejamento e Execução da Instrução de Ordem Unida - Planejar e conduzir uma sessão de instrução de OU com militares desarmados; Planejar e conduzir uma sessão de instrução de OU com militares armados de fuzil e/ou Mtr M9 M972 “Beretta” e Planejar e conduzir uma sessão de instrução de Honras Militares. Ordem Unida com Espada - Identificar a espada como símbolo de comando; Executar os movimentos de espada a pé firme e Executar os movimentos de espada em deslocamento. Treinamento para o Aspirantado - Realizar os treinamentos para a formatura do Aspirantado. Objetivo Integrador - Realizar o planejamento das instruções de OU corretamente, buscando desenvolver a coesão e a disciplina (DISCIPLINA**)**.

UN IV – SIPLEx, SIMEB E MOBILIZAÇÃO - 1.SIPLEx – a. Descrever os elementos básicos e a estrutura do Sistema de Planejamento do Exército (SIPLEx). b. Identificar os reflexos do SIPLEx para a Força Terrestre. Segurança na Instrução - Empregar as normas de segurança definidas em manuais e diretrizes de instrução (An “A“ PBIM/COTER); Controlar e supervisionar as atividades de risco, de tiro real, de explosivos, de pistas de combate e de deslocamentos motorizados; Administrar as missões e tarefas confiadas a si ou sua fração como perito responsável e Elaborar um Plano de Segurança. Elaborar o formulário de gerenciamento de risco. PBIM/COTER - Descrever os elementos básicos e a estrutura do Plano Básico de Instrução Militar/COTER e Descrever o planejamento da instrução de Capacitação Técnica e Tática do Efetivo Profissional (CTTEP). SIMOBE - Descrever os conceitos de mobilização e aprestamento da Força; Descrever os setores de atividades abrangidos na Mobilização Militar; Descrever as atividades desenvolvidas nas Seções Mobilizadoras das OM; Interpretar os objetivos do plano de preparo e plano de execução das Seções Mobilizadoras e Interpretar a finalidade do diário de mobilização.

UN V - INSTRUÇÃO ESPECIAL - Operações de Garantia da Lei e da Ordem (GLO): a. generalidades (conjuntura atual e segurança integrada); b. Guerra Revolucionária (Conceituação), estrutura dos Movimentos Revolucionários e objetivos das forças adversas); c. operações contra forças irregulares (missão da Força Terrestre, tipos de Op, objetivos das Op e condições de êxito); d. amparo legal (Constituição da República Federativa do Brasil, Código Penal Militar e Código do Processo Penal Militar. e. Conceituar Guerra Revolucionária. f. Citar a estrutura simplificada dos Movimentos Revolucionários. g. Descrever os objetivos das forças adversas em um Movimento Revolucionário. h. Descrever a missão da Força Terrestre nas Operações de Garantia da Lei e da Ordem. i. Enumerar os tipos de operações desenvolvidas e seus objetivos na Garantia da Lei e da Ordem. j. Citar as condições de êxito nas Operações de Garantia da Lei e da Ordem. l. Determinar o amparo legal para o emprego da tropa na realização das Operações de Garantia da Lei e da Ordem... Técnicas Operacionais Entrevista e Interrogatório - a. Generalidades, b. Técnicas de Entrevista, c. Técnicas de Interrogatório - Preparação do Interrogador - Preparação do Interrogado - Condução do Interrogatório - Interrogatório Sumário do Comandante de Patrulha e d. Amparo Legal - Descrever as técnicas de Entrevista, Descrever as técnicas gerais de Interrogatório e Compreender o Interrogatório sumário do comandante de patrulha. Técnicas Operacionais Empregadas em Ambiente Rural - a. Generalidades, b. Técnicas Operacionais - Vasculhamento - Dispositivo de Expectativa - Espera ou Tocaia - Emboscada - Rastreamento - Saturação de Área - Operações Noturnas - Incursão - Contato - Trabalho de Massa, c. ACISO, d. Conduta da Tropa, e. Operação de Cerco, f. O Cerco na Desocupação Pacífica de Área

e g. Amparo Legal - Constituição da República Federativa do Brasil. Descrever as Técnicas Operacionais empregadas em ambiente rural; Citar as fases de uma operação de cerco; Enumerar as peculiaridades de uma operação de cerco para a desocupação pacífica de área; Determinar o amparo legal para o emprego das Técnicas Operacionais e Planejar o emprego da SU e do pelotão na realização de Técnicas Operacionais em Ambiente rural. Operações de Busca e Apreensão (OBA) Operações de Inteligência (Op. Intg)- a. Generalidades, b. Definição, c. Fatores que as Influenciam e Características das Operações, d. Equipamento Empregado, e. Fases de uma OBA - Levantamento - Normas de Comando - Execução - Retraimento, f. Amparo Legal - Constituição da República Federativa do Brasil - Código Penal Militar (CPM) - Código de Processo Penal Militar (CPPM), g. Documentação Empregada. Definir as Operações de Busca e Apreensão; Citar os fatores que as influenciam e as características de uma OBA; Descrever as fases de uma OBA; Descrever o equipamento a ser empregado em uma OBA; Determinar o amparo legal para a realização de uma OBA; Planejar uma OBA e Comandar uma fração de valor pelotão, na realização de uma Operação de Busca e Apreensão (OBA Definir Op Intg; Conhecer os tipos de op intg; Identificar os fatores que influenciam as Op Intg; planejar uma Op Intg. Ponto de Bloqueio e Controle de Estradas (PBCE) – a. Generalidades, b. Definição, c. Missões de um PBCE, d. Princípios Gerais, e. Prováveis atividades das Forças Adversas, f. Organização da Tropa, g. Missões dos Grupos, h. Equipamento Empregado, i. Procedimentos na Revista - De Pessoal - De Viaturas, j. Amparo Legal e k. Documentação Empregada. Identificar as missões e o emprego de um PBCE; Reconhecer a organização de um PBCE; Citar as ações necessárias ao estabelecimento de um PBCE; Descrever o equipamento a ser empregado em um PBCE; Citar os procedimentos na revista de pessoal e de viaturas; Determinar o amparo legal para a instalação de um PBCE; Planejar o estabelecimento de um PBCE e Comandar uma fração de valor pelotão, no estabelecimento de um Ponto de Bloqueio e Controle de Estradas (PBCE). Defesa de Ponto Sensível com o Estabelecimento de um Posto de Segurança Estático (PSE) - a. Generalidades, b. Definição, c. Tipos de Pontos Sensíveis, d. Organização da Tropa, e. Equipamento Empregado, f. Comunicações, g. Planejamento, h. Ocupação e j. Amparo Legal. Identificar as missões e o emprego de um PSE; Reconhecer a organização de um PSE; Citar as ações necessárias ao estabelecimento de um PSE; Descrever o equipamento a ser empregado em um PSE; Determinar o amparo legal para a instalação de um PSE; Planejar um PSE e Comandar uma fração de valor pelotão, no estabelecimento de um Posto de Segurança Estático (PSE). Operações de Controle de Distúrbios (OCD) - a. Generalidades, b. Conceitos Básicos, c. Concepção da OCD, - Fatores da Decisão - Missões Atribuídas - Emprego da Força Terrestre - Condicionantes - Princípios Básicos, d. Fases da OCD, e. Organização de uma Força OCD, f. Ações Complementares, g. Formações da Força de Choque, h. Equipamento Empregado, i. Emprego de Blindados e j. Amparo Legal. Citar as principais atividades desenvolvidas pelas frações de pequeno escalão nas OCD; Reconhecer a organização de uma Força OCD; Enumerar as formações da Força de Choque; Descrever o equipamento a ser empregado em uma OCD; Determinar o amparo legal para a realização de uma OCD; Planejar uma OCD e Comandar uma fração de valor pelotão, na realização de uma Operação de Controle de Distúrbios (OCD). Apronto Operacional - Realizar o aprestamento para o cerimonial e para o estágio, conforme as orientações contidas no informativo ao curso; Apresentar-se aprestado com todo o material e equipamentos previstos para a realização do estágio; Preparar seu equipamento e armamento individual conforme as orientações recebidas (DEDICAÇÃO); Antecipar-se no planejamento ou execução de tarefas, independente de orientação do instrutor (INICIATIVA) e Manter em boas condições o material e/ou instalações sob sua responsabilidade (ZELO).

UN VI – SISTEMAS OPERACIONAIS - Fundamentos dos Sistemas Operacionais 1. Identificar os fundamentos dos Sistemas Operacionais. Sistemas Operacionais em Operações Ofensivas .1. Aplicar os fundamentos dos Sistemas Operacionais executando Exercício de Simulação de Combate, em uma operação ofensiva. Sistemas Operacionais em Operações defensivas 1. Aplicar os fundamentos dos Sistemas Operacionais executando Exercício de Simulação de Combate, em uma operação defensiva. 1 Emprego Coordenado dos Sistemas Operacionais 2. Aplicar os fundamentos dos Sistemas Operacionais executando Exercício de Simulação de Combate, em uma atividade de dupla ação. Objetivos Integradores - Planejar o emprego e comandar uma fração, de valor pelotão, no estabelecimento de um Ponto de Bloqueio e Controle de Estradas (PBCE); Planejar o emprego e comandar uma fração, de valor pelotão, na realização de uma Operação de Busca e Apreensão (OBA); Planejar o emprego e comandar uma fração, de valor pelotão, em uma Operação de Controle de Distúrbios (OCD); Planejar o emprego e comandar uma fração, de valor companhia e valor pelotão, na Defesa de um Ponto Sensível, estabelecendo um Posto de Segurança Estático (PSE); Planejar o emprego e comandar uma fração, de valor pelotão, em um Interrogatório; Planejar o emprego e comandar uma fração, de valor pelotão e valor grupo de combate, nas Operações Contra Forças

Irregulares, empregando as Técnicas Operacionais em ambiente rural e todos os meios disponíveis (Helcp, Vtr, Mat Com etc.); Realizar Blz, Emb, Dbq de Helcp e ficar ECD receber ressuprimento Aet / Amv, dentro de um quadro de defesa interna; Planejar o emprego e comandar fração, de valor companhia e valor pelotão, na realização de uma Operação de Cerco e / ou de Cerco na Desocupação Pacífica de Área; Superar-se face às dificuldades decorrentes de um fato, ambiente ou atividade nova (ADAPTABILIDADE); Transpor as dificuldades, confiando no seu sucesso (AUTOCONFIANÇA); Participar ativamente das atividades, contribuindo para o trabalho do grupo (COOPERAÇÃO); Enfrentar, sem hesitar, as situações de risco que se apresentem (CORAGEM); Apresentar soluções inovadoras para os problemas que surjam (CRIATIVIDADE); Selecionar, com convicção, a melhor linha de ação (DECISÃO); Empenhar-se com afinco na preparação e execução das atividades (DEDICAÇÃO); Distribuir os trabalhos pelo grupo e supervisioná-los de forma adequada e eficiente (DIREÇÃO); Manter-se sob controle, diante de situações de desgaste, tensão ou risco (EQUILÍBRIO EMOCIONAL); Modificar ou ajustar a linha de ação, adequando o planejamento ou a execução da missão às novas condicionantes (FLEXIBILIDADE); Antecipar-se no planejamento ou execução de tarefas, independente de orientação do instrutor (INICIATIVA); Comandar com entusiasmo e justiça, fazendo prevalecer as suas linhas de ação pelo argumento, impondo-se pela competência e pelo exemplo e promovendo a coesão do grupo (LIDERANÇA); Planejar e cumprir a missão de forma metódica, numa sequência lógica (ORGANIZAÇÃO); Prosseguir, de forma insistente, na execução de tarefas, até alcançar o objetivo final (PERSISTÊNCIA); Manter o bom rendimento na execução de tarefas, a despeito da fadiga física e mental (RESISTÊNCIA); Cumprir as missões no prazo estabelecido, seguindo as normas de segurança e admitindo as consequências dos seus erros (RESPONSABILIDADE) e Manter em boas condições o material e/ou instalações sob sua responsabilidade (ZELO).

GRUPO IV

TIRO

UN I – TIRO DE FUZIL – Tiro de fuzil – Realizar o tiro de Fuzil dos MEE 14 e MEE 15.Aplicar as Normas de Segurança e Procedimento no Estande; Executar a manutenção de 1º escalão para o tiro; Aplicar os fundamentos de tiro na execução do tiro; Demonstrar segurança na execução do tiro (AUTOCONFIANÇA); Manter a calma na execução do tiro (EQUILÍBRIO EMOCIONAL) e Evidenciar zelo no trato com o fuzil (ZELO).

UN II – TIRO DE PISTOLA - Tiro de pistola - Realizar o tiro de Pistola dos MEE 10 e MEE 11; Aplicar as Normas de Segurança e Procedimento no Estande; Executar a manutenção de 1º escalão para o tiro; Aplicar os fundamentos de tiro na execução do tiro; Demonstrar segurança na execução do tiro (AUTOCONFIANÇA); Manter a calma na execução do tiro (EQUILÍBRIO EMOCIONAL) e Evidenciar zelo no trato com a pistola (ZELO).

UN III – INSTRUTOR DE TIRO NO CORPO DE TROPA – Documentação básica para o tiro – Identificar os documentos normativos relativos à segurança no estande; Identificar os documentos normativos relativos à dotação de munição; Identificar os documentos normativos relativos ao tiro do armamento individual do Exército e elaborar os documentos de registro do tiro. Instrução de tiro Descrever os aspectos gerais da instrução de tiro; Estabelecer medidas comuns, a serem observadas durante as instruções de tiro; citar os exercícios de tiro a serem executados pelos diversos militares de uma subunidade; Analisar os resultados apresentados e corrigir as falhas do atirador e Concluir após a inspeção da arma, sobre sua disponibilidade para o tiro, bem como seu nível de manutenção de 1º escalão. Conduzir uma IPT; Conduzir uma Sessão de Tiro e Demonstrar segurança e convicção na condução de uma IPT e uma sessão de tiro (AUTOCONFIANÇA).

Certifico que as disciplinas acima elencadas constam no Plano de Disciplinas (PLADIS) do Ensino Fundamental Superior da Academia Militar das Agulhas Negras.

Quartel em Resende, RJ, 24 de setembro de 2025.

MARCUS VINICIUS CAMPOS SIQUEIRA:07440822420

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MARCUS VINÍCIUS CAMPOS SIQUEIRA - Maj
Secretário da Divisão de Ensino

Carnegie Evaluations LLC
315 East High Street, Bound Brook, New Jersey, 08805
Email: info@carnegieevaluations.com
Website: www.carnegieevaluations.com
Phone: (848)300-0099
Fax: (848) 300-5199

EVALUATION OF ACADEMICS

Carnegie Evaluations LLC, who specializes in the evaluation of foreign educational credentials, has prepared the following academic credential evaluation.

December 16, 2025

Name: **Mr. Luiz Henrique GARCEZ LOTUFO**

Following is a description of Mr. Garcez Lotufo's foreign degree:

Institution:	*Academia Militar Das Agulhas Negras*
Degree:	*Titulo de Bacharel em Ciencias Militares*
Date of Award:	December 1988
Years of Study:	Four
Country:	Brazil

Institution:	*Escola de Aperfeicoamento de Oficiais*
Degree:	*Curso de Aperfeicoamento de Oficiais/ Mestre em Operacoes Militares*
Date of Award:	November 1996
Years of Study:	Two
Country:	Brazil

Academic Equivalency in the United States

BACHELOR OF SCIENCE IN MILITARY SCIENCES

MASTER OF ARTS IN MILITARY OPERATIONS

Carnegie Evaluations LLC, offers this evaluation, after reviewing copies of the original diploma certificates and transcripts provided. This evaluation is advisory in nature and is based on the assumption that the submitted documents are accurate. There are no apparent grounds to disbelieve the authenticity and accuracy of the documentation presented on behalf of Mr. Luiz Henrique Garcez Lotufo. In addition, this evaluation is based upon standard scholarly and professional sources as referenced at the end of this document. Carnegie Evaluations LLC, is not responsible for how this evaluation report will be used and is not responsible for damages resulting from such use of this report.

DISCUSSION OF MR. GARCEZ LOTUFO'S ACADEMICS

This credential evaluation is provided upon review of the degree certificates and transcripts awarded to Mr. Luiz Henrique Garcez Lotufo during the course of his academic career. An analysis of Mr. Garcez Lotufo's foreign educational courses for the *Titulo de Bacharel em Ciencias Militares* (translated as Bachelor in Military Sciences) from *Academia Militar Das Agulhas Negras* (translated as Agulhas Negras Military Academy) and *Curso de Aperfeicoamento de Oficiais* (translated as Officers Improvement Course) and *Mestre em Operacoes Militares* (translated as Master's degree in Military Operations) from *Escola de Aperfeicoamento de Oficiais* (translated as Officers Improvement School) forms the basis for the following evaluation.

Mr. Garcez Lotufo graduated with a Bachelor's in Military Sciences from Agulhas Negras Military Academy in December 1988. Agulhas Negras Military Academy is an accredited institution of higher education in Rio de Janeiro, Brazil. Admission to this program requires graduation from the US equivalent of high school and competitive entrance examinations. Mr. Garcez Lotufo satisfactorily completed the academic course requirements for a bachelor's degree program. He majored in Military Sciences and was awarded a *Titulo de Bacharel em Ciencias Militares* from the institute.

This is a four-year undergraduate program of study that is equivalent to a degree of Bachelor of Science (B.S.) from an accredited institution of higher education in the United States. The academic criterion maintained by Agulhas Negras Military Academy is significantly similar to those parameters upheld by any other accredited colleges and universities in the United States.

The Bachelor in Military Sciences curriculum includes advanced bachelor's-level coursework and examinations in Descriptive Geometry, Statistics, Mathematics, Mechanics, Writing and Style, Physics, Computer Science, Chemistry, Topography, Economics and Finance, Philosophy, Military History, English, Psychology, Geography, Law, and other related subjects.

Thereafter, Mr. Garcez Lotufo graduated with an Officer's Improvement Course from Officers Improvement School in November 1996. Officers Improvement School is an accredited institution of higher education in Rio de Janeiro, Brazil. Admission to this program requires graduation from Bachelor's level studies and competitive entrance examinations. Mr. Garcez Lotufo satisfactorily completed the academic course requirements for an Officer's Improvement Course program. He majored in Cavalry and was awarded a *Curso de Aperfeicoamento de Oficiais* from the institute.

The Officers Improvement Course conducted at the Officers Improvement School acquired skills and qualifications equivalent to a stricto sensu graduate program, conferring the Master's degree in Military Operations, corresponding to his Bachelor's degree in Military Sciences obtained at the Agulhas Negras Military Academy. This is a two-year graduate program of study that is equivalent to a degree of Master of Arts (MA) from an accredited institution of higher education in the United States. The academic criterion maintained by Officers Improvement School is significantly similar to those parameters upheld by any other accredited colleges and universities in the United States.

The Officer's Improvement Course curriculum includes advanced graduate-level coursework and examinations in Organization and Employment of Branch, Study, Tactical Planning and Operational Employment, Introduction to Joint Combined-Arms Doctrine, Integrated Security, Military History, Higher Education Methodology, Scientific Research Methodology, Military Leadership, Managerial Excellence, Military Administration, Military Leadership and Ethics / Military Professionalism, Advanced Scientific Research, Statistics, Guidance / Supervision, and completed a thesis project.

Upon reviewing Mr. Garcez Lotufo's academic history, it becomes apparent that Mr. Garcez Lotufo has satisfied the coursework requirements, which are substantially similar and equivalent to those required for the completion of a four-year Bachelor's degree and a Master's degree program at an accredited institution of higher education in the United States.

SUMMARY

On the basis of the academic reputations of Officers Improvement School and Agulhas Negras Military Academy, the nature and duration of the academic course work, and the grades attained in the courses, it is the judgment of Carnegie Evaluations LLC that Mr. Garcez Lotufo has attained the equivalent of a Bachelor of Science in Military Sciences and a Master of Arts in Military Operations from an accredited institution of higher education in the United States.

Carnegie Evaluations LLC represents this evaluation report to be an accurate and correct evaluation to the best of its knowledge and belief, pursuant to the requirements of the Citizenship and Immigration Services of the United States Department of Homeland Security. Carnegie Evaluations LLC does not represent that the documentation submitted to it by anyone for evaluation meets the evidentiary standards of any state or federal agency or any court. This evaluation report, as are all such reports provided by Carnegie Evaluations LLC, is advisory for the customer who requested it.

The foregoing evaluation of Mr. Garcez Lotufo has been reviewed and approved by me, Dr. Zach G. Zacharia, on December 16, 2025.
Sincerely,



Zach G. Zacharia, Ph.D.
Director, Carnegie Evaluations LLC.
Associate Professor of Supply Chain Management
Director, Lehigh Center for Supply Chain Research
Lehigh University

Evaluation Resources:

1. World Higher Education Database. International Association of Universities' Worldwide Database of Higher Education Institutions, Systems and Credentials. www.whed.net.
2. AACRAO EDGE. AACRAO Electronic Database for Global Education. https://www.aacrao.org/edge
3. Central Intelligence Agency (CIA). The World Factbook. https://www.cia.gov/the-world-factbook/
4. ENIC-NARIC. European Network of Information Centres in the European Region, National Academic Recognition Information Centres in the European Union. www.enic-naric.net.

Bio: Professor Zach G. Zacharia

I am the Interim Department Chair, Decision and Technology Analytics (DATA) Department, an Associate Professor of Supply Chain Management, and Director of the Center for Supply Chain Research Lehigh in the College of Business and Economics, Lehigh University, where I teach Graduate and Undergraduate courses in Supply Chain Operations Management and Logistics and Transportation. In addition, I am also a visiting Professor at the Indian Institute of Technology (IIT) in New Delhi, India. I graduated with a B.S. in Mechanical Engineering from the University of Calgary, an MBA from the University of Alberta, and a Ph.D. in Logistics with a minor in Marketing from the University of Tennessee. My current research interests include Collaboration/Coopetition within the Supply Chain, Supplier Satisfaction, and the Physical Internet.

Before joining Academia, I worked at the University of Tennessee, Center for Transportation Research, for six years as an Associate Director. I also worked at the Department of Transportation in Alberta, Canada, for ten years as an Equipment Engineer. I am a principal in BZS Consulting, which primarily focuses on teaching Supply Chain Operations Management and evaluating collaboration and procurement strategies across firms in a supply chain.

I have developed significant international contacts and collaborations with many affiliate schools in several countries in Europe, Asia, and South America. I have evaluated numerous portfolios of international students from countries around the world and have performed in-depth assessments of how these foreign courses are equated to corresponding courses in the United States.

I have 29 refereed publications, including 2 articles in the Journal of Operations Management, 8 articles in the *Journal of Business Logistics,* and articles in *Decision Sciences*, the *Journal of Supply Chain Management, Industrial Marketing Management, International Journal of Production Research, International Journal of Production and Operations Management, International Journal of Logistics Management, Journal of Retailing, Journal of Business and Industrial Marketing, Marketing Management, Supply Chain Management Review, Journal of International Technology and Information Management*, *Journal of Vehicle Design* and *Wall Street Journal*. As a member of a Supply Chain Research Group at the University of Tennessee, I co-authored a book titled "*Supply Chain Management*" (Sage Publications, December 2000). I also contributed a chapter on logistics service providers and new product development in the book titled *Managing Innovation: The New Competitive Edge for Logistics Service Providers*, Stephan M. Wagner ed.**,** Kuehne Foundation Book Series (2007).

Among the awards that Dr. Zacharia has received is the DATA Department Service Award (2023), Staub Faculty Excellence Award (2013) for the College of Business, Lehigh University, Best Paper Finalist (2010) from the Journal of Operations Management, Best Paper Award (2007) from NARTS and Best Dissertation Proposal Award (2000) from University of Arkansas. As a member of a Supply Chain Research Group at the University of Tennessee, he coauthored a book titled Supply Chain Management (Sage Publications, December 2000).

A. Biographical Information

Zach G. Zacharia, Ph.D.
Interim Department Chair, Decision and Technology Analytics Department
Associate Professor Supply Chain Management
Director, Center for Supply Chain Management Lehigh
Supply Chain Management Program Director
Department of Management, College of Business Administration and Economics
Lehigh University, 621 Taylor Street, Bethlehem, PA, 18015
Office: (610) 758-4433, Fax: (610) 758-6941
zgz208@lehigh.edu

EDUCATION

1996 - 2001 **THE UNIVERSITY OF TENNESSEE** **Knoxville, TN**
Doctor of Philosophy in Business Administration

- Major: Logistics, Minor: Marketing
- Dissertation Title: An Analysis of the Effect of Logistics Involvement in Cross-functional Integrated New Product Development Projects (Advisor: Dr. John T. Mentzer)

1988 – 1993 **THE UNIVERSITY OF ALBERTA** **Edmonton, AB**
Master of Business Administration

1981 - 1985 **THE UNIVERSITY OF CALGARY** **Calgary, AB**
Bachelor of Science, Mechanical Engineering

1980 - 1981 **RED DEER COLLGE** **Red Deer, AB**
Bachelor of Science

1979 – 1980 **THE UNIVERSITY OF ALBERTA** **Edmonton, AB**
Bachelor of Science

WORK EXPERIENCE SUMMARY

2016 – Present, Director, Center for Supply Chain Research Lehigh
2013 – Present, Associate Professor – Lehigh University
2008 – 2013 Assistant Professor – Lehigh University
2001 – 2008 Assistant Professor - Texas Christian University
1999 – 2001 Associate Director – Transportation Center, University of Tennessee
1997 – 1999 Assistant Director - Transportation Center, University of Tennessee
1995 – 1997 Senior Research Associate – University of Tennessee
1989 – 1995 Research Engineer – R&D Branch, Alberta Transportation & Utilities
1985 – 1989 Equipment Engineer – Alberta Transportation & Utilities

CONSULTING PROJECTS, EXECUTIVE EDUCATION

2023 Ecofriendly Behavior on Personal Transportation, AFIT, Dalton
2020 Financial Flow in SC, DiCentral, Houston

2020	Expert Witness – Real Estate Company, Bethlehem
2020	Lehigh University, Executive Education, Bethlehem
2019	Lehigh University, Executive Education, Bethlehem
2019	SC Collaboration in Drop Ship, DiCentral, Houston
2018	Coopetition in the Defense Industry, AFIT, Dayton
2018	IIT New Delhi, Executive Education, Delhi, India
2017	Lehigh University, Executive Education, Bethlehem
2016	IIT Madras, Global Initiative of Academic Networks, Chennai, India
2015	Morrison Executive Education, Santo Domingo, Dominican Republic
2014	CSCMP Executive Seminar, Bogota, Columbia
2012	Supply Chain Management Simulation, WAM Systems, Philadelphia
2010	Supply Chain Management Overview, Universidad de Piura, Peru
2007	Procurement of Capability Guidelines, Lockheed Martin Aeronautics
2002	Truck Safety Recommendations, University of Tennessee

B. Publications and Creative Activities

EDITORIAL ROLES (6)

- Senior Associate Editor- *International Journal of Logistics Management (2018-current)*
- Senior Editor- *Journal of Business Logistics (2016- current)*
- Special Issue Editor-(Physical Internet) - *Journal of Business Logistics (2018-2020)*
- Special Issue Editor- (Inter-Disciplinary Research) *Journal of Business Logistics (2014-2015)*
- Editorial Board Member – *Journal of Operations Management*
- Editorial Board Member –*Transportation Journal*
- Editorial Board Member – *Journal of Supply Chain Management*

DISSERTATION COMMITTEE MEMBER (2)

- Michael Plasch - *Supply Chain Collaboration - Investigating Motives, Drivers And Success Factors* – Johannes Kepler University Linz, Austria, 2021
- Kimberly K. Whitehead – *It's A Matter Of Give And Take: Exploring The Role Of Knowledge Transfer Within Supply Chain Collaboration* - University of Texas at Arlington, USA, 2014

BOOK CHAPTERS (5)

- **Zacharia, Zach G**. "Is there a role for Logistics Service Providers in New Product Development?" *Managing Innovation: The New Competitive Edge for Logistics Service Providers*, Stephan M. Wagner ed., Kuehne Foundation Book Series. Ch 7, 2008.
- Mentzer, John T., William J. DeWitt, James S. Keebler, Soonhong Min, Nancy W. Nix, Carlo D. Smith, and **Zach G. Zacharia**, "What is Supply Chain Management" *Supply Chain Management*, Thousand Oaks, CA: Sage Publications, Ch.1, 2000.
- **Zacharia, Zach G**., "R&D and New Product Development in Supply Chain Management" *Supply Chain Management*, John T. Mentzer ed.**,** Thousand Oaks, CA: Sage Publications, Ch.6, 2000.
- **Zacharia, Zach G**., "The Evolution and Growth of Production in Supply Chain Management" *Supply Chain Management*, John T. Mentzer ed., Thousand Oaks, CA: Sage Publications, Ch.8, 2000.
- **Zacharia, Zach G**, "The Evolution and Growth of Information Systems in Supply Chain Management" *Supply Chain Management*, John T. Mentzer ed., Thousand Oaks, CA: Sage Publications, Ch.11, 2000.

REFEREED PUBLICATIONS (29)

29. Varun Jain, Usha Mohan, Zach G. Zacharia, Nada R. Sanders (2022) "Improving patient satisfaction and outpatient diagnostic center efficiency using novel online real-time scheduling" *Operations Research for Health Care,* 32, 1-17, 100338

28. Saif Mir, Misty Blessley, **Zach Zacharia**, John Aloysius (2022) "Mending Fences in the Buyer-Supplier Relationship: The Role of Justice in Relationship Restoration" *Journal of Supply Chain Management*. Vol. 58, No. 3, 23 – 46.

27. Dev, Navin; Ravi Shankar; **Zach Zacharia**, Sanjeev Swami, (2021) "Supply chain resilience for managing the ripple effect in Industry 4.0 for green product diffusion" *International Journal of Physical Distribution & Logistics Management* Vol. 51 No. 8, 897-930.

26. Ballot, Eric, Benoit Montreuil, **Zach G. Zacharia**, (2021) "Physical Internet: First Results and Next Challenges" *Journal of Business Logistics* Vol 42 No. 1, 1 – 7.

25. Treiblmaier, Horst, Kristijan Mirkovski, Paul B. Lowry, **Zach G. Zacharia**, (2020) "The Physical Internet as a New Supply Chain Paradigm: A Systematic

Literature Review and a Comprehensive Framework" *International Journal of Logistics Management* Vol. 31 No. 2, 239-287.

24. **Zach G. Zacharia**, Michael Plasch, Usha Mohan, Markus Gerschberger (2019) "The Emerging Role of Coopetition Within Inter-Firm Relationships" *International Journal of Logistics Management* Vol. 30, No. 2, 414-437.

23. Soonhong Min, **Zach G. Zacharia**, Carlo D. Smith (2019) "Defining Supply Chain Management: In the Past, Present and Future" *Journal of Business Logistics* Vol. 40 No.1, 44-55.

22. Kimberly Whitehead, **Zach Zacharia**, Edmund Prater (2019) "Investigating the Role of Knowledge Transfer in Supply Chain Collaboration" *International Journal of Logistics Management"* Vol. 30, No. 1, 284-302.

21. Misty Blessly, Saif Mir, **Zach G. Zacharia**, John Aloysius (2018) "Breaching Relational Obligations In A Buyer-Supplier Relationship: Feelings Of Violation, Fairness Perceptions And Supplier Switching" *Industrial Marketing Management* Vol. 74, Oct, 215-226.

20. Faraz, Alireza, Nada R. Sanders, **Zach G. Zacharia**, Markus Gerschberger (2018) "Monitoring Type B Buyer-Supplier Relationships" *International Journal of Production Research* Vol. 56, No. 18, 6225-6239.

19. Whitehead, Kimberly, **Zach G. Zacharia**, Edmund Prater, (2016) "Absorptive Capacity Versus Distributive Capability: The Asymmetry of Knowledge Transfer" *International Journal of Operations and Production Management* Vol. 36, No 10, 1308-1332.

18. Nada R. Sanders, Brian R. Fugate, **Zach G. Zacharia**, (2016) "Interdisciplinary Research In SCM: Through the Lens of The Behavioral Theory of The Firm" *Journal of Business Logistics* Vol. 37, No 2, 107-112.

17. Nancy W. Nix, **Zach G. Zacharia,** (2014) "The Impact of Collaborative Engagement on Knowledge and Performance Gains in Episodic Collaborations" *International Journal of Logistics Management* Vol. 25, No 2, 245-269.

16. **Zach G. Zacharia,** Nada R. Sanders, Brian R. Fugate (2014) "The Evolving Role of Disciplines Within Supply Chain Management" *Journal of Supply Chain Management* Vol. 50, No 1, 73-88.

15. Nada R. Sanders, **Zach G. Zacharia**, Brian R. Fugate (2013) "The Interdisciplinary Future of Supply Chain Management Research" *Decision Sciences* Vol. 44, No. 3, 413-429.

14. Geoffrey T. Stewart, **Zach G. Zacharia,** Andrew B. Artis (2012) "Leveraging Relationship Orientation and its Impact on Relationship Outcomes" *Journal of Business and Industrial Marketing,* Vol. 27, No. 8, 644-658.

13. **Zach G. Zacharia,** Nancy W. Nix, Robert F. Lusch (2011) "Capabilities that Enhance Outcomes of an Episodic Supply Chain Collaboration" *Journal of Operations Management*, Vol. 29, No. 6, 591-603.

12. **Zach G. Zacharia,** Nada R. Sanders, Nancy W. Nix (2011) "The Emerging Role of the Third-Party Logistics Provider (3PL) as a Supply Chain Orchestrator" *Journal of Business Logistics*, Vol. 32, No. 1, 40-54.

11. Danny Lanier, Jr., William F. Wempe, **Zach G. Zacharia**, (2010) "Concentrated Supply Chain Membership and Financial Performance: Chain- and Firm-Level Perspectives" *Journal of Operations Management*, Vol.28, No.1, 1-16.

10. **Zach G. Zacharia**, Chad W. Autry, David S. Preston, Charles W. Lamb, (2009) "IT Alignment with Business Strategies in a Healthcare Organizations: An Empirical Analysis" *Journal of International Technology and Information Management*, Vol. 18, No. 3/4, 477-494.

9. **Zach G. Zacharia,** Nancy W. Nix and Robert F. Lusch, (2009) "An Analysis of Supply Chain Collaborations and Their Effect on Performance" *Journal of Business Logistics*, Vol. 30, No. 2, 101-123.

8. Chad W. Autry, **Zach G. Zacharia** and Charles W. Lamb, (2008) "A Logistics Strategy Taxonomy" *Journal of Business Logistics,* Vol. 29. No. 2, 53-74.

7. Nancy W. Nix, Robert F. Lusch, **Zach G. Zacharia**, and Wesley R. Bridges, (2008) "Competent Collaborations" *Marketing Management*, Vol. 17, No. 2, 18-24.

6. **Zach G. Zacharia** and John T. Mentzer (2007) "The Role of Logistics in New Product Development," *Journal of Business Logistics*, Vol. 28, No. 1, 83-110.

    a. Reprinted in:
    b. *Logistique and Management,* Vol. 16, No. 1, 35-53, (2008).

5. **Zach G. Zacharia** and John T. Mentzer (2004) "Logistics Salience In A Changing Environment," *Journal of Business Logistics*, Vol. 25, No. 1, 187-210.

    a. Reprinted in:
    b. *The ICFAI Journal of Supply Chain Management*, Vol. 3, No. 1, 53-72, (2006).

4. Mentzer, John T., William DeWitt, James S. Keebler, Soonhong Min, Nancy W. Nix, Carlo D. Smith, **Zach G. Zacharia** (2001) "Defining Supply Chain Management," *Journal of Business Logistics*, Vol. 22, No. 2, 1-25.

    c. Reprinted in:
    d. *Logistique and Management,* Vol. 9, No. 2, 3-19, (2001).

3. **Zacharia, Zach G**., John E. Tidwell and Stephen H. Richards (2001) "An Overview of Truck and Bus Safety:1999 Knoxville Symposium," *Journal of Vehicle Design*, Vol. 26, No. 4, 442-453.

2. Mentzer, John T., Min Soonhong and **Zach G. Zacharia** (2000) "The Nature of Interfirm Partnering in Supply Chain Management," *Journal of Retailing*, Winter, Vol. 76, Issue 4, 549-568.

1. **Zacharia, Zach G**. and Bart Jennings (1998) "The Use of Active Participation and Group Competition to Facilitate Training and Technology Transfer for Adult Learners," *Transportation Research Record,* No. 1637, 13-18.

PAPERS UNDER REVIEW (2)

- Zach G. Zacharia, Scott C. Ellis, Saif Mir, Robert J. Trent - "Gaining Advantage Through Social Exchange: How and Under What Conditions" (Revise and Resubmit)

- **Saif Mir, Timothy W. Breitbach, Zach G. Zacharia, Benjamin T. Hazen "Supplier Cultivation: An Accelerator Approach to Ecosystem Innovation" (Under Review)**

NON - REFEREED PUBLICATIONS (5)

5. **Zach G. Zacharia** (2020), What Every CFO Needs to Know about Supply Chains

4. **Zach G. Zacharia** (2019), Supply Chain Collaboration in Transformative Vertical Industries (Implications of Omnichannel and Drop Shipping)

3. Robert J. Trent, **Zach G. Zacharia,** (2012) "The Wisdom of Becoming a Preferred Customer," *Supply Chain Management Review* Vol. 16, No. 6, 10-18.

2. Nix, W. Nancy, Robert F. Lusch, **Zach G. Zacharia**, and Wesley R. Bridges, (2007) "The Hand That Feeds You – What Makes Some Collaborations with Suppliers Succeed – When So Many Fail?" *The Journal Report- Business Insight* (A Joint Venture with MIT *Sloan Management Review* and *Wall Street Journal*), Dow Jones and Company

1. **Zacharia, Zach G**. (1994) "Expert System Simplifies Bridge Paint Maintenance Programs," *Materials Performance,* June, 25 - 28.

CONFERENCE PROCEEDINGS (18)

18. **Zach Zacharia**, Timothy Breitbach, Ben Hazen, Saif Mir (2019) "Utilizing Accelerator Programs for adopting Innovations to Encourage the Adoption" *CSCMP Conference,* Anaheim, CA, September 15.
17. **Zach Zacharia**, Timothy Breitbach, Ben Hazen, Saif Mir (2018) "Utilizing Accelerator Programs to Encourage the Adoption of New Innovations in Large Organizations" *DSI Conference,* Chicago, IL, November 17.
16. Robert Weidmer, **Zach Zacharia**, (2018) "Competing Governance Mechanisms in Buyer-Supplier Relationships" *DSI Conference,* Chicago, IL, November 16.
15. **Zach Zacharia**, Michael Plasch, Usha Mohan, Markus Gerschberger (2017) "The Role of Coopetition in Buyer Supplier Relationships" *DSI Conference,* Washington, DC, November 18.
14. **Zach Zacharia**, Michael Plasch, Usha Mohan, Markus Gerschberger (2017) "Understanding the Antecedents and Outcomes of Coopetition" *CSCMP Academic Research Conference,* Atlanta, Georgia, September 24.
13. **Zach Zacharia**, Michael Plasch, Usha Mohan, Markus Gerschberger (2017) "The Evolving Role of Coopetition within the Supply Chain" *CSCMP European Research Seminar,* Barcelona, Spain, May 19.
12. Gouda, Sirish, **Zach Zacharia**, Haritha Saranga (2016) "Linking New Forms of Work Organization and External Integration: Mediating role of cross functional collaboration" *DSI Conference,* Austin, Texas, November 21.
11. Blessley, Misty, Saif Mir, **Zacharia, Zach G.,** John Aloysius (2016) "The role of apologies following transgressions in buyer-supplier relationships." *CSCMP Educator Conference,* Orlando, Florida, September 25.
10. Blessley, Misty, Saif Mir, **Zacharia, Zach G.,** John Aloysius (2016) "The role of transactional and relational psychological contract breach in supplier switching behavior." *CSCMP European Research Seminar,* Vienna, Austria, May 13.
9. Blessley, Misty, Saif Mir, **Zacharia, Zach G.,** John Aloysius (2015) "Should I stay or should I go? The role of transactional and relational psychological contract breach in supplier switching behavior." *CSCMP Educator Conference,* San Diego, California, September 27.
8. **Zacharia, Zach G.,** Nancy W. Nix and Robert F. Lusch (2007) "Supply Chain Collaborations: Project Performance and Business Performance" *18th North American Teaching and Research Conference,* Tempe, Arizona, March 29-31.

7. **Zacharia, Zach G.** (2005) "Team Based Learning in MBA and Undergraduate Supply Chain Management Classes" *16th North American Teaching and Research Conference,* Tempe, Arizona, March 17-19.

6. Nix, Nancy W., **Zach G. Zacharia** and Robert F. Lusch (2005) "Keys to Effective Supply Chain Collaboration" *16th North American Teaching and Research Conference,* Tempe, Arizona, March 17-19.

5. **Zacharia, Zach G.** and Marc E. Ruzicka (2003) "Experiential Learning: Live Business Cases in MBA Supply Management and Logistics Classes" *14th North American Teaching and Research Conference,* Tempe, Arizona , March 21- 23.

4. **Zacharia**, **Zach G** (2000) "The Evolution and Growth of Production in the Supply Chain", *Society for Marketing Advances Conference*, Orlando, Florida, November 8-10.

3. **Zacharia, Zach G**., John E. Tidwell and Stephen H. Richards (2000) "An Overview of Truck and Bus Safety:1999 Knoxville Symposium," *4th International Fatigue Management Conference*, Perth, Australia, March 19-2.

2. **Zacharia, Zach G**. and Bart Jennings (1998), "The Use of Active Participation and Group Competition to Facilitate Training and Technology Transfer for Adult Learners," *Transportation Research Board Conference Proceedings,* Washington, District of Columbia, January 4-8.

1. **Zacharia, Zach G**. (1992), "Bridge Paint Expert Systems"*, Second International Organization for Economic Cooperation and Development (OECD) Conference on Knowledge Based Expert Systems in Transportation*, Montreal, Canada, April 3-7.

CONFERENCE PRESENTATIONS (3)

3. **Zach Zacharia**, (2022) "Identifying and Ranking Supply Chain Risks" *WDSI Conference,* Waikoloa, HI, April 7.

2. Annibal Sodero**, Zach Zacharia**, (2022) "Antecedents and outcomes of drop-shipping adoption in the retail supply chain" Euroama Conference, Berlin, July 3rd

1. Saif Mir**, Zach Zacharia**, (2022) "Risks in Procurement and Sourcing" DSI Conference Houston, November 21

PODCASTS (5)

- **Zacharia, Zach G**. (2021), "Red Flags in the Supply Chain" https://business.lehigh.edu/blog/2021/zach-zacharia-red-flags-supply-chain (July 2nd)

- **Zacharia, Zach G**. (2021), "Red Flags in the Supply Chain" https://business.lehigh.edu/blog/2021/zach-zacharia-red-flags-supply-chain (July 2nd)

- **Zacharia, Zach G**. (2021), "Disruptive New Paradigm of the Physical Internet" https://business.lehigh.edu/blog/2021/zach-zacharia-disruptive-new-paradigm-physical-internet (June 3rd)

- **Zacharia, Zach G**. (2018), "Dealing with Disruptive Innovations in the Supply Chain" (https://cbe.lehigh.edu/blog/posts/dealing-disruptive-innovations-supply-chain) (October 24)

- **Zacharia, Zach G**. (2017), "Drop Shipping: A New Opportunity for Retailers and Suppliers" (https://cbe.lehigh.edu/blog/posts/drop-shipping-new-opportunity-retailers-and-suppliers) December 11

- **Zacharia, Zach G**. (2017), "What You Need to Know About the Physical Internet" (https://cbe.lehigh.edu/blog/posts/what-you-need-know-about-physical-internet (March 14) (Ranked 4th in Google Search for Physical Internet)

WORKING PAPERS (6)

- Zach Zacharia, Michael Plasch, Markus Gerschberger "Explorative and exploitative motives for coopetition" *Target: International Journal of Production Economics*

- Zach Zacharia, Annibal Sodero "Drop Shipping and its Effects on the New E-Commerce Retail Paradigm" *Target: Journal of Operations Management"*

- Zach Zacharia, Robert Wiedmer, Kimberly Whitehead "Competing Governance Mechanisms in Buyer-Supplier Relationships" *Target: Journal of Operations Management*

- Zach Zacharia, Cedric Heuchenne, Nada Sanders, Faraz, Alireza "Comparison of populations based on binary characteristics in the presence of non-response" *Target: Production Operations Management Journal*

- Zach Zacharia, Gopal Kumar "Environmental and social performance leads to supply chain performance? An analysis in context of sustainable collaboration" *Target: Supply Chain Management: An International Journal*

- Zach Zacharia, Benjamin Hazen, Timothy Breitbach, Saif Mir "How Accelerator Programs Facilitate Innovation Adoption in Large Organizations" *Target: Journal of Operations Management*

27. Honors and Awards (25)

2023	DATA Department Service Award, Lehigh University
2018	Teaching Innovation Grant, CBE, Lehigh University
2018	Senior Associate Editor for *International Journal of Logistics Management*
2017	Best Reviewer Award *Journal of Business Logistics*
2016	Editor for *Journal of Business Logistics News*
2016	Associate Editor for *Production Operations Management* Special Issue
2015	Associate Editor for *Journal of Business Logistics*
2015	Member of the *Transportation Journal* Editorial Board
2013	Robert and Christine Staub Faculty Excellence Award
2012	Member of the *Journal of Supply Chain Management* Editorial Board
2011	Best Paper Finalist for 2010 (*Journal of Operations Management*)
2011	Best Paper Award (European DSI Conference)
2010-2011	Council of Supply Chain Management Professional Educator Conference Chair
2010	Member of the *Journal of Operations Management* Editorial Board
2010	Member of the *Journal of Business Logistics* Editorial Board
2009-2010	Supply Chain Management Educator Conference Proceedings Editor
2007-2008	Council of Supply Chain Management Case Editor
2007	Best Paper Award (*NARTS-ISM Conference*)
2006	Tied for highest SPOT (Student Perception of Teaching) score
2005	Highest SPOT (Student Perception of Teaching) in INSC department
2000	Doctoral Dissertation Proposal Award (*University of Arkansas)*
2000	Outstanding Student Paper Award *(Society for Marketing Advances)*
2000	Finalist *(ISBM Doctoral Dissertation Award)*
2000	Scholarly Research Grant Recipient *(University of Tennessee)*
1999, 1997	Fellow *(Council of Logistics Management Doctoral Symposium)*

28. Research Funding (16)

2019	DiCentral – SCM and Financial Flow Research $20,000
2019	Ben Franklin Technology Partners and ESPI $20,000
2018	AFIT – Managing Customer Driven Coopettittion Projects $25,000
2017	DiCentral – Drop Shipment Research $20,000
2014-2015	International Travel Grant - One of 5 recipients selected across the entire University $5000
2011	Faculty Research Grant – Lehigh University (Principal Investigator), Catherine Ridings (Lehigh University) " Does investment in Supply Chain Management and Information Technology provide value for micro firms?" $4500
2009	Summer Research Grant – College of Business and Economics, Lehigh University (Principal Investigator), Nada R. Sanders (Lehigh University, Brian S. Fugate (Colorado State University) *"State of Supply Chain Management: A Visionary Perspective"* $3000
2002-2007	Charles Tandy American Enterprise Center Faculty Research Award *(Texas Christian University)* ($10,000/yr)
2003, 05, 07	Junior Faculty Research Grant *(Institute of Supply Management)* ($750/yr)
2005	Research Center for Teaching Excellence, Faculty Fellow Grant *(Texas Christian University)* ($2500)

F. Scholarly Presentations (79)

- **Zacharia, Zach G.,** "*Supply Chain Collaboration in Transformative Vertical Industries"* Retail Value Chain Federation Conference, Teaneck, New Jersey, May 6, 2019

- **Zacharia, Zach G.,** "*Theoretical and Conceptual Foundations of Supply Chain Management"* PhD Research Seminar, Indian Institute of Technology, New Delhi, January India, January 25, 2018.

- **Zach Zacharia**, Michael Plasch, Usha Mohan, Markus Gerschberger "*The Role of Coopetition in Buyer Supplier Relationships*" *DSI Conference,* Washington, DC, November 18, 2017

- **Zacharia, Zach G.,** "*Utilizing Drop Shipment to Improve Your Bottom Line"* Retail Value Chain Federation Conference, Phoenix, Arizona, November 6, 2017

- **Zach Zacharia**, Michael Plasch, Usha Mohan, Markus Gerschberger "*Understanding the Antecedents and Outcomes of Coopetition*" *CSCMP Academic Research Conference,* Atlanta, Georgia, September 24, 2017

- **Zacharia, Zach G.,** "*Complexity in Supply Chain Management"* PhD Research Seminar, Atlanta, Georgia, September 23, 2017

- **Zacharia, Zach G.,** "*Coopetition Research"* PhD Research Seminar, Atlanta, September 22, 2017

- **Zacharia, Zach G.,** "*Buyer Supplier Relationships"* PhD Research Seminar, Atlanta, September 21, 2017

- **Zacharia, Zach G.,** "*Publishing Research in American Supply Chain Journals"* Indian Institute of Technology, New Delhi, India, July 21, 2017.

- **Zacharia, Zach G.,** "*Transforming Traditional Networks Through the Use of Collaborative Environments"* Supply Chain Leaders in Action Conference, Naples, Florida June 5, 2017

- **Zach Zacharia**, Michael Plasch, Usha Mohan, Markus Gerschberger (2017) "*The Evolving Role of Coopetition within the Supply Chain*" CSCMP European Research Seminar*,* Barcelona, Spain, May 19.

- **Zacharia, Zach G.,** "*Logistics PhD programs in the US panel session"* Logistics Doctoral Symposium, Auburn University, Auburn, February 24, 2017.

- **Zacharia, Zach G.,** "*A Research Journey"* Indian Institute of Technology, Trichy, India, February 6, 2017.

- **Zacharia, Zach G.,** "*Orientation and Firm Infrastructure"* PhD Research Seminar, Logistikum, University of Applied Sciences, Steyr, Austria January 12, 2017

- **Zacharia, Zach G.,** "*Strategy"* PhD Research Seminar, Logistikum, University of Applied Sciences, Steyr, Austria January 11, 2017

- **Zacharia, Zach G.,** "*Conceptual Foundations from Procurement and Operations"* PhD Research Seminar, Logistikum, University of Applied Sciences, Steyr, Austria January 10, 2017

- **Zacharia, Zach G.,** "*Conceptual Foundations from Marketing and Logistics"* PhD Research Seminar, Logistikum, University of Applied Sciences, Steyr, Austria January 9, 2017

- **Zacharia, Zach G.,** "*Theoretical and Conceptual Foundations of Supply Chain Management"* PhD Research Seminar, Logistikum, University of Applied Sciences, Steyr, Austria August 10, 2016

- **Zacharia, Zach G.,** "*Philosophy of Science"* PhD Research Seminar, Logistikum, University of Applied Sciences, Steyr, Austria August 9, 2016

- **Zacharia, Zach G.,** " *Conceptual Foundations of Marketing"* PhD Research Seminar, Logistikum, University of Applied Sciences, Steyr, Austria August 8, 2016

- **Zacharia, Zach G.,** " *Conceptual Foundations of Operations"* PhD Research Seminar, Logistikum, University of Applied Sciences, Steyr, Austria August 10, 2016

- Gouda, Sirish, **Zach Zacharia**, Haritha Saranga (2016) "Linking New Forms of Work Organization and External Integration: Mediating role of cross functional collaboration" *DSI Conference,* Austin, Texas, November 21.

- Blessley, Misty, Saif Mir, **Zacharia, Zach G.,** John Aloysius (2016) "The role of apologies following transgressions in buyer-supplier relationships." *CSCMP Educator Conference,* Orlando, Florida, September 25.

- **Zacharia, Zach G.,** " *Increasing Efficiency and Reducing Cost within a Supply Chain"* Indian Institute of Technology, Madras, India, June 13 2016.

- Blessley, Misty, Saif Mir, **Zacharia, Zach G.,** John Aloysius (2016) "The role of transactional and relational psychological contract breach in supplier switching behavior." *CSCMP European Research Seminar,* Vienna, Austria, May 13.

- Bleasley, Misty, Mir, Saif, **Zacharia, Zach G.,** Aloysius, John " *Should I stay or should I go? The role of transactional and relational psychological contract breach in supplier switching behavior"* Council of Supply Chain Management Educator Conference, San Diego, September 27, 2015.

- **Zacharia, Zach G.,** "*Qualitative and Quantitative Research Paths in SCM"* , University of Arkansas, Fayetteville, Arkansas Feb 27, 2015.

- **Zacharia, Zach G.,** "*Publishing Research in American Supply Chain Journals"* Indian Institute of Management, Bangalore, India, January 13, 2015.

- **Zacharia, Zach G.,** Scott Ellis, Robert J. Trent "*Gaining Advantage Through Social Exchange: How and Under What Conditions"* Production Operation Management Conference, Atlanta, Georgia, May 10, 2014.

- Ellis, Scott, **Zacharia, Zach G.,** Jae-Young Oh "*The Role of Functional Congruence in Cross-Functional and Inter-organizational Collaboration"* Decision Sciences Institute Conference, Baltimore, Maryland, November 19, 2013.

- **Zacharia, Zach G.,** "*Supply Chain Management, Collaboration and their Role Across Businesses and People"* Congress of Latin American Engineering Students, Lima, Peru, October 29, 2013.

- **Zacharia, Zach G.,** Scott Ellis, "*Antecedents to Buyer-Engineer Knowledge Transfer"* Production Operation Management Conference, Denver, Colorado, May 4, 2013.

- **Zacharia, Zach G.,** "*Balancing Effective Research and Teaching"* – Invited Panel Presentation, Council of Supply Chain Management Doctoral Symposium, Atlanta, Georgia, October 1, 2012.

- **Zacharia, Zach G.,** "*What are some of the Factors That Affect the Relationship Between Cross Functional New Product Development and New Product Project Performance?"* Decision Sciences Institute Conference, Boston, Massachusetts, November 22, 2011.

- **Zacharia, Zach G.,** "*Supply Chain Security - An Academic Discussion and Future Research"* Invited Panel Presentation, Decision Sciences Institute Conference, Boston, Massachusetts, November 21, 2011.

- **Zacharia, Zach G.,** "*Conference Chairperson Opening Remarks"* Council of Supply Chain Management Educator Conference, Philadelphia, Pennsylvania, October 2, 2011.

- **Zacharia, Zach G.,** William F. Wempe William and Danny Lanier, Jr. "*Concentrated Supply Chain Membership and Financial Performance: Chain- and Firm-Level Perspectives"* Academy of Management Conference, San Antonio, Texas, August 12 – August 17, 2011.

- **Zacharia, Zach G.** and Catherine M. Ridings *"Does investment in Supply Chain Management and Information Technology provide value for micro firms?"* Production Operations Management Conference, Reno, Nevada, April 28-May 1, 2011.

- **Zacharia, Zach G.** and Robert J. Trent *"Supplier Satisfaction and Innovation Sharing"* Decision Sciences Institute Conference, San Diego, November 20-23, 2010.

- Christoph Bode, Stephan M. Wagner and **Zacharia, Zach G.,** "*The Effect of Cooperation, Supplier Development, and Relationship-Specific Investments on Suppliers' Willingness to Share Innovation"* Decision Sciences Institute Conference, San Diego, November 20-23, 2010.

- **Zacharia, Zach G.** *"Personal Career Development in Academia: What now and How"* Council of Supply Chain Management Professionals Doctoral Symposium, San Diego, September 27, 2010.

- **Zacharia, Zach G.** *"Supply Chain Management Overview"* Executive MBA Program, Universidad de Piura, Piura, Peru, June 12, 2010.

- **Zacharia, Zach G.** *"Supply Chain Management Collaboration Strategies"* CSCMP Roundtable, Lima, Peru, June 11, 2010.

- **Zacharia, Zach G.** and John R. MacDonald *"Are differences in Risk Planning Significant?"* Production and Operations Management Conference, Vancouver, Canada, May 7-10, 2010.

- **Zacharia, Zach G.** and Robert J. Trent *"Supplier Satisfaction – How does it matter?"* Production and Operations Management Conference, Vancouver, Canada, May 7-10, 2010.

- **Zacharia, Zach G.,** Nancy W. Nix, and Robert F. Lusch *"The Moderating Role of Absorptive Capability and Collaborative Communication in Organizational Learning"* 19th *North American Teaching and Research Conference,* Tempe, Arizona, March 11-12, 2010

- **Zacharia, Zach G.** and John R. MacDonald *"Risk Planning: Is it of Value"* Decision Sciences Institute Conference, New Orleans, LA, November 17, 2009.

- **Zacharia, Zach G.** *"When Should New Product Development Managers Consider Distribution Logistics"* Decision Sciences Institute Conference, New Orleans, LA, November 15, 2009.

- John R. MacDonald and **Zacharia, Zach G.** *"Risk and Disruption Management: The Impact of Behavioral Interference"* Behavioral Operations Conference, Syracuse, NY, June 26, 2009.

- **Zacharia, Zach G.,** Nancy W. Nix, and Robert F. Lusch *"The Moderating Role of Absorptive Capability and Collaborative Communication in Organizational Learning"* Production and Operation Management Conference, Orlando, FL, May 2, 2009.

- **Zacharia, Zach G.,** Nancy W. Nix and Robert F. Lusch "Supply Chain Collaborations: Project Performance and Business Performance" *18th North American Teaching and Research Conference,* Tempe, Arizona, March 29-31. (2007)

- **Zacharia, Zach G.,** Nancy W. Nix, and Robert F. Lusch *"The Moderating Role of Absorptive Capability and Collaborative Communication in Organizational Learning"* University of Tennessee, Knoxville, TN, November 7, 2006.

- **Zacharia, Zach G.,** Nancy W. Nix, and Robert F. Lusch *"The Moderating Role of Absorptive Capability and Collaborative Communication in Knowledge Acquisition"* DFWCSMP Roundtable meeting, Dallas, TX, October 12, 2006.

- **Zacharia, Zach G.,** *"Early Supplier Involvement"* National Council for Advanced Manufacturing, Washington, MD, June 7, 2006.

- **Zacharia, Zach G.,** Nancy W. Nix, and Robert F. Lusch *"Keys to Effective Supply Chain Collaboration and Knowledge Acquisition"* National Council for Advanced Manufacturing, Washington, MD, June 7, 2006.

- **Zacharia, Zach G.,** Nancy W. Nix, and Robert F. Lusch *"Keys to Effective Supply Chain Collaboration"* Supplier Network Working Group Meeting, Fort Worth, TX March 16, 2006.

- **Zacharia, Zach G.,** Nancy W. Nix, and Robert F. Lusch *"Keys to Effective Supply Chain Collaboration"* Institute of Supply Management Group Meeting, Fort Worth, Texas, January 3, 2006.

- **Zacharia, Zach G.** "Team Based Learning in MBA and Undergraduate Supply Chain Management Classes" *16th North American Teaching and Research Conference,* Tempe, Arizona, March 17-19. (2005)

- Nix, Nancy W., **Zach G. Zacharia** and Robert F. Lusch "Keys to Effective Supply Chain Collaboration" *16th North American Teaching and Research Conference,* Tempe, Arizona, March 17-19. (2005)

- **Zacharia, Zach G.,** *"Education Strategies"* Council of Logistics Roundtable Leadership Forum, Chicago, Illinois, June 11-12, 2004.
- **Zacharia, Zach G.,** and Nancy W. Nix, *"Supply Chain Collaboration – The role of a 3PL intermediary"* Society of Marketing Advances, New Orleans, Louisiana, November 6 - 8, 2003.
- **Zacharia, Zach G.,** Nancy W. Nix, and Robert F. Lusch *"Collaboration Effectiveness in the Supply Chain: A Knowledge and Capabilities Based Approach"* American Marketing Faculty Consortium, Dallas, Texas, October 30-November 2, 2003.

- **Zacharia, Zach G.,** *"What does it mean to be an education officer in your roundtable?"* Council of Logistics Roundtable Leadership Forum, Chicago, Illinois, June 6-7, 2003.

- Nix, Nancy W. and **Zach G. Zacharia**, Track Chairs "*Going Beyond the Hype: Getting and Measuring the Value from your Supply Chain Initiatives"* Council of Logistics Management Conference, Chicago, Illinois, September 23-27, 2003.
- **Zach G. Zacharia,** *Top 10 Truck Safety Recommendations*, Federal Motor Carrier Safety Administration, Washington, District of Columbia, October 16, 2002.
- **Zach G. Zacharia,** *Logistics Involvement in New Product Development*, University of Arkansas, Fayetteville, Arkansas, September 18, 2002.
- **Zach G. Zacharia,** "Supply and Value Chain Certificate Program" presented at the Supply and Value Chain Conference, Ft. Worth, Texas, February 8, 2002.
- **Zach G. Zacharia,** "*Tennessee Transportation Assistance Program*" presented at the Region 4 LTAP conference, St. Petersburg, Florida, May 16, 2001.
- **Zach G. Zacharia,** "*The Evolution and Growth of Production in the Supply Chain*", *2000 Society for Marketing Advances Conference*, Orlando, Florida, November 8. 2000.
- **Zach G. Zacharia,** and Soonhong Min "*The Nature of Interfirm Partnering in Supply Chain Management*" presented at American Marketing Association, Chicago, Illinois, August 5, 2000.
- **Zach G. Zacharia,** *"Searching the Internet and Web Page Design"* presented at University of Tennessee, Knoxville, Tennessee, April 17, 2000.
- **Zach G. Zacharia,** *"An Overview of Truck and Bus Safety: 1999 Knoxville Symposium* presented at the 4th International Fatigue Management Conference, Perth, Australia, March 19 – 22, 2000.
- **Zach G. Zacharia,** "*Traffic Safety and the Internet*" presented at the Governor Highway Safety Conference, Memphis, Tennessee, July 12-14, 1999.
- **Zach G. Zacharia,** "*Tennessee Transportation Assistance Program*" presented at the Asphalt Emulsion Users Conference, Nashville, Tennessee, November 19, 1998.
- **Zach G. Zacharia** and Barton R. Jennings "*The Use of Active Participation and Group Competition to Facilitate Training and Technology Transfer for Adult Learners*" Transportation Research Board Conference, Washington, District of Columbia, January 10-14, 1998.
- **Zach G. Zacharia,** "*Training Requirements for Local Governments*" presented at the National Transportation Training Conference, Reno, Nevada, October 7-9, 1997.
- **Zach G. Zacharia,** "*Logistics Thought: Key Messages and Implications from the Field of Marketing*," presented at the Council of Logistics Management Doctoral Symposium, Chicago, Illinois, October 3-4, 1997.

- **Zach G. Zacharia,** "*Navigating the Internet*" presented at the Southeast Local Roads Conference, Biloxi, Mississippi, September 24-26, 1997.
- **Zach G. Zacharia,** "*Bridge Paint Expert Systems,"* presented at the Second International Organization for Economic Cooperation and Development (OECD) Conference on Knowledge Based Expert Systems in Transportation, Montreal, Canada, June 14-16, 1992.

G. Teaching and Research Advising

COURSES:

Lehigh University (2008 – Present)

- SCM 186 - Supply Chain Management and Operations (Undergraduate 2008 - present)
- SCM 354 - Logistics and Transportation (Undergraduate 2008-present)
- GBUS 453 – Logistics and Transportation (Graduate 2013 – present)
- GBUS 492- Supply Chain Management Strategy (Graduate 2010- 2015) (Summer Course)
- Advising 14 Supply Chain Management Majors (2021)
- Advising 11 Supply Chain Management Majors (2020)
- Advising 21 Supply Chain Management Majors (2019)
- Advising 5 Supply Chain Management Majors (2018)
- Advising 24 Supply Chain Management Majors (2017)
- Advising 9 Supply Chain Management Majors (2016)
- Advising 27 Supply Chain Management Majors (2015)
- Advising 28 Supply Chain Management Majors (2014)
- Advising 24 Supply Chain Management Majors (2013)
- Advising 9 Supply Chain Management Majors (2012)
- Advising 10 Supply Chain Management Majors (2011)
- Advising 13 Supply Chain Management Majors (2010)
- Advising 6 Supply Chain Management Majors (2009)

Texas Christian University (2001 – 2008)

- Strategic Sourcing and Procurement (Professional MBA) 2007
- Business Simulation (Professional MBA) 2007
- Supply Chain Management Concepts (Full-Time MBA) 2005 – 2008
- Supply Chain Management Concepts (Professional MBA) 2001– 2008
- Logistics and Transportation (Professional MBA) 2001 - 2008
- Supply Chain Tools and Technologies (Professional MBA) 2002
- Logistics and Transportation (Undergraduate) 2001 - 2008
- Supply Chain Management Concepts (Undergraduate) 2003 – 2004
- Supply Chain Tools and Technologies (Undergraduate) 2003
- Procurement and Supply Management (Undergraduate) 2003

University of Tennessee (1996-2001)

- Introduction to Transportation (Undergraduate) Summer 1998
- Introduction to Logistics (Undergraduate) Summer 1999
- Marketing Management (Undergraduate) Spring 2000
- Global Logistics and Transportation (Undergraduate) Summer 2000

H. SERVICE

University

Faculty Compensation Committee (2016 – 2019)

College

Director, Center for Supply Chain Research Lehigh
Promotion and Tenure Committee (2021 – onwards)
Chair, Database and Software Committee (2018 – onwards)
Ph.D. Task Force (2017)
Undergraduate Core Curriculum Committee (2016)
Math Committee to Assess Assessment Results (2010)

Department

BIS Assistant Professor Search Chair – Tenure Track (2021-2021)
SCM Assistant Professor Search Chair – Tenure Track (2020-2020)
DATA Department Chair Search – Tenure Track (2019-2019)
SCM Assistant Professor Search Chair – Tenure Track (2018-2018)
SCM POP Search Chair (2017-2017)
Research Seminar Committee (2010-2011)
SCM Club Faculty Liaison (2009-2019)

Professional (Council of Supply Chain Management Professionals)

Education Committee Member -Lehigh Valley Roundtable (2015-onwards)
President – Lehigh Valley Roundtable (2012-2015)
Education Conference Chair (2010 – 2011)
Education Strategies Committee Member (2007 – 3-year term)
Case Editor (3-year term)
President – Dallas Roundtable (2007-2008)
Vice President – Dallas Roundtable (2006-2007)
Education chair – Dallas Roundtable (2004-2006)
Member (1999 – onwards)

External Service

Rockefeller Group – Expert Service Consulting (Jan 2020)

Exhibit B - Work Records

OMNI-OPS-305-2025

Rio de Janeiro, January 5, 2026

To Whom It May Concern,

This letter is issued to certify that Mr. Luiz Henrique Garcez Lotufo has been employed on a full-time basis at Omni Táxi Aéreo S/A since October 15, 2020, to the present date, currently holding the position of Captain of Heavy Helicopter (Sikorsky S-92).

Mr. Lotufo possesses extensive experience in both civil and military aviation, with a professional trajectory demonstrating continuous progression in responsibilities and technical excellence in the performance of his duties in command of complex air operations.

His main responsibilities in this role include:

- Performing flight operations in heavy lift helicopters in offshore environments, ensuring operational safety and compliance with national and international civil aviation regulations;
- Conducting mission planning involving the transport of passengers and cargo, including external loads, under variable meteorological and operational conditions;
- Conducting operational briefings, ensuring adherence to technical protocols and standardized flight procedures;
- Supporting and guiding flight crews in emergency procedures, instrument navigation, and night flight;
- Collaborating with maintenance, dispatch, and flight safety departments, contributing to the continuous improvement of internal processes and the company's safety culture.

During his tenure with this company, Mr. Lotufo has distinguished himself through his high level of technical competence and commitment to safety and operational efficiency standards, qualities that reflect his solid training and experience accumulated over more than three decades in aviation.

Should additional information regarding Mr. Lotufo's employment or qualifications be required, please contact us at: andre.viana@omnibrasil.com.br.

Sincerely,



Director of Operations

I, Marina Viana Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that I have performed the professional translation of this document from Portuguese to English, as a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Marina Viana **Date: April, 23 2026**

OMNI-OPS-305-2025

Rio de Janeiro, 05 de janeiro de 2026.

A quem possa interessar,

A presente carta tem como finalidade certificar que o Sr. Luiz Henrique Garcez Lotufo exerce suas atividades profissionais em regime de tempo integral na empresa Omni Táxi Aéreo S/A, desde 15 de outubro de 2020 até a presente data, ocupando atualmente a função de Piloto Comandante de Helicóptero de Grande Porte (Sikorsky S-92).

O Sr. Lotufo é detentor de larga experiência na aviação civil e militar, com trajetória profissional que demonstra progressão contínua de responsabilidades e excelência técnica no desempenho de suas funções de comando de operações aéreas complexas.

Suas principais atribuições na função incluem:

- Executar operações de voo em helicópteros de grande porte em ambiente offshore, garantindo a segurança operacional e a conformidade com normas nacionais e internacionais de aviação civil;
- Realizar planejamento de missões aéreas envolvendo transporte de passageiros e cargas, inclusive externas, sob condições meteorológicas e operacionais variáveis;
- Conduzir briefings operacionais, assegurando o cumprimento de protocolos técnicos e padronizações de voo;
- Apoiar e orientar tripulações em procedimentos de emergência, navegação por instrumentos e voo noturno;
- Cooperar com setores de manutenção, despacho e segurança de voo, contribuindo para o aprimoramento contínuo dos processos internos e da cultura de segurança operacional da empresa.

Durante o período de vínculo com esta empresa, o Sr. Lotufo tem se destacado pela elevada competência técnica e comprometimento com padrões de segurança e eficiência operacional, características que refletem sua sólida formação e experiência acumulada ao longo de mais de três décadas de atuação na aviação.

Caso sejam necessárias informações adicionais sobre o vínculo profissional ou as qualificações do Sr. Luiz Henrique Garcez Lotufo, favor contatar-nos pelo e-mail andre.viana@omnibrasil.com.br .

Atenciosamente,

Diretor de Operações

MINISTRY OF DEFENSE
BRAZILIAN ARMY
SOUTHEASTERN MILITARY COMMAND
ARMY AVIATION COMMAND (CAVEX)
“RICARDO KIRK” BRIGADE

AIRCREW FLIGHT LOGBOOK – CERTIFICATION

The Command of the Army Aviation Command (CAVEX) hereby certifies the Aircrew Flight Logbook, as published in the Internal Bulletin/CAvEx, concerning Colonel Aviator (ID No. 023260093-2) LUIZ HENRIQUE GARCEZ LOTUFO, attesting that the officer, upon transfer to the Retired Reserve, possesses flight experience in military helicopters, as detailed below:

1) By Role and Helicopter Model

- Aircraft AS 365K (Dauphin) – Multi-engine:
Pilot-in-Command (Aircraft Commander): 15.6 FH
Co-pilot (Tactical Pilot/Basic Pilot): 120.2 FH
Total: 135.8 FH

- Aircraft AS 550 / HB 350L1 (Esquilo) – Single-engine:
Pilot-in-Command (Aircraft Commander): 1,780.8 FH
Co-pilot (Tactical Pilot/Basic Pilot): 156.0 FH
Total: 1,936.8 FH

- Aircraft S-70 (Black Hawk) – Multi-engine:
Pilot-in-Command (Aircraft Commander): 803.5 FH
Co-pilot (Tactical Pilot/Basic Pilot): 92.0 FH
Total: 895.5 FH

- Flight Simulator:
Total: 34.9 FH

- Special Crew Member:
Total: 195.5 FH

- **Grand Total**: 3,003.0 Flight Hours (FH)

2) By Type of Flight

- Instructional Flight (IV): 1,336.4 FH
- IFR (Instrument Flight Rules) Flight: 140.9 FH
- Night VFR (Visual Flight Rules) Flight: 102.6 FH
- Simulator Flight: 34.9 FH

3) Dates of Most Recent Flights

- Aircraft AS 365K (Dauphin): 04/30/2013
- Aircraft AS 550 / HB 350L1 (Esquilo): 04/23/2013
- IFR Flight: 04/30/2013
- Night Flight: 04/29/2013

LOURENÇO WILLIAM DA SILVA RIBEIRO PINHO - Colonel

I, Marina Viana Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that I have performed the professional translation of this document from Portuguese to English, as a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Marina Viana **Date: April, 24 2026**

MINISTÉRIO DA DEFESA
EXÉRCITO BRASILEIRO
COMANDO MILITAR DO SUDESTE
COMANDO DE AVIAÇÃO DO EXÉRCITO
BRIGADA RICARDO KIRK

REGISTRO DE HORAS DE VOO DE AERONAVEGANTE – HOMOLOGAÇÃO

O Comando do Comando de Aviação do Exército (CAvEx) homologou o registro de Horas de Voo de Aeronavegante, conforme publicado no Boletim Interno/CAvEx, referente ao Cel Cav (Idt 023260093-2) LUIZ HENRIQUE GARCEZ LOTUFO, atestando que o militar, ao ser transferido para a Reserva Remunerada, possui experiência de voo em Helicópteros Militares, conforme se segue:

1) Por função e por modelo de helicóptero

- Aeronave AS 365K (Dauphin) Multimotor:
Piloto em Comando (Comandante de Bordo) – 15,6 HV;
Copiloto (Piloto Tático/Piloto Básico) – 120,2 HV;
Total – 135,8 HV

- Aeronave AS 550/HB 350L1 (Esquilo) Monomotor:
Piloto em Comando (Comandante de Bordo) – 1.780,8 HV;
Copiloto (Piloto Tático/Piloto Básico) – 156,0 HV;
Total – 1.936,8 HV

- Aeronave S70 (Black Hawk) Multimotor:
Piloto em Comando (Comandante de Bordo) – 803,5 HV
Copiloto (Piloto Tático/Piloto Básico) – 92,0 HV;
Total – 895,5 HV

- Simulador de Voo:
Total – 34,9 HV

- Tripulante Especial:
Total – 195,5

- **Total geral**: 3.003,0 HV

2) Por tipo de voo

- Voo de Instrução (IV): 1.336,4 HV
- Voo IFR: 140,9 HV
- Voo VFR noturno: 102,6 HV
- Voo em simulador: 34,9 HV

3) Datas dos últimos voos

- Aeronave AS 365K (Dauphin): 30/04/2013
- Aeronave AS 550/HB 350L1 (Esquilo): 23/04/2013
- Voo IFR: 30/04/2013
- Voo noturno: 29/04/2013

LOURENÇO WILLIAM DA SILVA RIBEIRO PINHO - Cel

Macaé, May 24, 2016

FLIGHT HOURS STATEMENT

BHS – Brazilian Helicopter Services

Av. Rio Branco, 138
7th Floor – Centro
ZIP Code 20040-002
Rio de Janeiro/RJ – Brazil

Tel.: +55 21 2189-0050
Fax: +55 21 2189-0051
bhs-helicopteros.com.br

We hereby certify that pilot Luiz Henrique Garcez LOTUFO, ANAC 705632, has accumulated the following total flight hours in company aircraft since his date of hire:

Flight period: 11/14/2013 to 05/18/2016

Aircraft: EC225

Crew Position: Co-Pilot: 1,101:34
Pilot-in-Command Under Supervision: 62:29

Type of Flight: IFR (Instrument Flight Rules): 249:13
Night: 01:30

Total: 1,164:03

Denny Menezes Gutierrez
ANAC 114651 – CPF 02867571766
Chief Pilot / Piloto Chefe
BHS – Brazilian Helicopter Services
denny.gutierrez@chc.ca

I, Marina Viana Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that I have performed the professional translation of this document from Portuguese to English, as a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Marina Viana

Date: April, 23 2026

BHS

Macaé, 24 de maio de 2016.

DECLARAÇÃO DE HORAS

BHS Brazilian Helicopter Services

Av. Rio Branco, 138
7° Andar - Centro
CEP 20040-002
Rio de Janeiro/RJ
Brasil

T 55 21 2189.0050
F 55 21 2189.0051
bhs-helicopteros.com.br

Informamos que o piloto Luiz Henrique Garcez LOTUFO, ANAC 705632, efetuou os seguintes totais de horas de voo em aeronaves da empresa desde sua admissão:

Período voado: 14/11/2013 à 18/05/2016

Equipamento: EC225

Função a bordo: Co-Piloto 1.101:34

Piloto em Comando Sob Supervisão 62:29

Tipo de voo: IFR 249:13

Noturno 01:30

Total: 1.164:03

Denny Menezes Gutierrez
ANAC 114651 – CPF 02867571766
Chief Pilot / Piloto Chefe
BHS – Brazilian Helicopter Services
denny.gutierrez@chc.ca

MOD. BHS022

C.I – First Prong – Substantial Merit and National Importance

BUSINESS PLAN

2026





Name: Luiz Henrique Garcez Lotufo
E-mail: luizhglotufo@gmail.com
Mobile: +55(12)99682-6912
Position: General Manager & Aviation Training & Operations Director

Prepared by:
Nextus Plan

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APPENDIX 1

1.0 Executive Summary

Vanguard Aviation Training will be established as a specialized aviation training and operational solutions company focused on enhancing safety, efficiency, and workforce readiness in complex helicopter operations across the United States.

The company will be headquartered in Houston, Texas, a strategic location with strong demand for aviation services supporting transportation, emergency response, and critical infrastructure operations. This positioning allows the company to serve a wide range of aviation operators while maintaining proximity to high-demand operational environments.

Vanguard Aviation Training's core mission is to improve aviation safety standards and technical performance through advanced training programs, standardized operational frameworks, and structured safety solutions. The company will primarily support organizations involved in emergency response, specialized aviation operations, and complex flight environments requiring high levels of technical proficiency and risk management.

A central component of the company's approach is the delivery of advanced pilot training, including specialized programs in Night Vision Goggle (NVG) operations and complex mission scenarios. These programs are designed to enhance pilot proficiency, strengthen decision-making, and improve operational readiness in high-risk conditions.

In addition, the company will implement structured operational procedures and safety frameworks aimed at improving consistency, reducing risk, and increasing overall operational reliability.

Vanguard Aviation Training will also play an active role in workforce development through targeted training initiatives, including programs designed to prepare aviation professionals for high-demand roles. As part of this effort, the company will support the transition of military veterans into civilian aviation careers by providing specialized training aligned with industry requirements, facilitating their integration into a highly technical and safety-critical sector.

Founder Background

Mr. Luiz Henrique Garcez Lotufo is a highly experienced helicopter pilot and instructor with over 7,300 flight hours, including extensive experience in advanced flight operations, pilot training, and mission-critical aviation environments.

Throughout his career, Mr. Lotufo has held leadership and instructional roles in both military and civilian aviation, including serving as a flight instructor, squadron commander, and operational pilot. He has strong expertise in Night Vision Goggle (NVG) operations, tactical flight techniques, and search and rescue missions, including participation in real-world rescue operations in challenging environments such as the Andes.

He has also contributed to the development of training programs and operational standardization initiatives, particularly in NVG operations, supporting improvements in aviation safety and performance.

As Founder and Aviation Training Director, Mr. Lotufo will lead the company's strategic direction, training development, and technical oversight.

National Impact and Economic Relevance

Safe and efficient aviation operations play a critical role in supporting public safety, emergency response, transportation, and infrastructure-related activities in the United States.[1] Helicopter operations, particularly those conducted in complex or high-risk environments, require advanced training, standardized procedures, and strong safety frameworks.[2]

However, increasing operational complexity and workforce gaps continue to challenge the aviation sector, particularly in areas requiring specialized training and mission readiness.[3] There is a growing need for structured programs that improve pilot performance, reduce operational risk, and enhance consistency across aviation operations.

Vanguard Aviation Training addresses these challenges by providing services designed to:

- Improve aviation safety and reduce operational risks
- Enhance pilot training and workforce readiness in specialized roles
- Strengthen operational standardization and performance consistency
- Support emergency response and mission-critical aviation activities
- Improve efficiency and reliability in complex operational environments

By improving safety outcomes and operational performance, the company contributes to public safety, workforce development, and economic productivity across sectors that depend on reliable aviation services.

From an economic perspective, the company will generate revenue through specialized training and operational services while creating high-skilled employment opportunities in aviation training and support roles.

Alignment with U.S. National Priorities

Vanguard Aviation Training aligns with key U.S. national priorities related to safety, workforce development, and operational resilience, including:

- Strengthening aviation safety and reducing operational risks

[1] https://www.faa.gov/sites/faa.gov/files/2025-AVS-078_The_National_Aviation_Safety_Plan_US_NASP.pdf
[2] https://www.faa.gov/sites/faa.gov/files/fy25-aviation-safety-workforce-plan.pdf
[3] https://www.gao.gov/products/gao-23-105571

- Supporting workforce development in high-demand aviation sectors
- Enhancing emergency response and disaster preparedness capabilities
- Promoting advanced training and operational standardization
- Improving reliability in mission-critical aviation operations
- Contributing to public safety and national resilience

Operating from Houston with a scalable and expertise-driven model, Vanguard Aviation Training is positioned to deliver high-impact services that improve safety, efficiency, and operational performance across the U.S. aviation sector.

1.1 Nature and Scope of the Business

Vanguard Aviation Training will operate as a specialized aviation training and operational support company focused on improving safety, efficiency, and performance in helicopter operations across the United States.

The company will deliver structured training programs, safety-focused solutions, and operational standardization services designed for complex aviation environments. Its scope includes advanced pilot training, Night Vision Goggle (NVG) operations, safety and risk mitigation support, and the development of standardized operational procedures.

Vanguard Aviation Training will support aviation operators, training organizations, and entities involved in emergency response and specialized aviation activities, providing practical and scalable solutions that improve operational consistency and reduce risk.

All services will follow structured methodologies focused on training delivery, performance improvement, and operational reliability, incorporating best practices from both military and civil aviation environments.

Core Business Activities

1. **Advanced Pilot Training and NVG Operations:** Delivery of advanced helicopter training programs, including specialized instruction in NVG operations and complex flight scenarios, aimed at improving pilot proficiency and operational readiness.
2. **Aviation Safety and Risk Management Solutions:** Implementation of structured safety practices, risk assessment support, and development of operational frameworks designed to reduce risk and improve safety performance.
3. **Operational Standardization and Efficiency Enhancement:** Development of standardized procedures and operational frameworks to improve consistency, efficiency, and reliability in aviation operations.
4. **Emergency Response, SAR, and Workforce Development Programs:** Training programs focused on search and rescue (SAR), emergency operations, and workforce development, including preparation of aviation professionals for specialized roles.

1.2 Mr. Luiz Henrique Garcez Lotufo's Expertise

Mr. Luiz Henrique Garcez Lotufo is a highly experienced helicopter pilot, instructor, and aviation professional with more than 7,300 flight hours accumulated across complex operational environments, including over 2,800 hours as pilot in command and more than 1,300 hours as a flight instructor.

His professional background combines extensive experience in both military and civilian aviation, with a strong focus on advanced flight operations, pilot training, and mission-critical environments. Throughout his career, Mr. Lotufo has operated a wide range of aircraft, including multi-engine helicopters such as the S-70A Black Hawk, EC225, and SK92, gaining significant experience in high-complexity flight conditions and operational scenarios.

During his tenure in the Brazilian Army Aviation, Mr. Lotufo held leadership and instructional roles, including serving as a flight instructor, squadron commander, and senior operational officer. He played a key role in the development and implementation of training programs, including the introduction and structuring of Night Vision Goggle (NVG) flight training, contributing to the advancement of operational standardization and safety practices within military aviation.

His expertise also includes tactical helicopter operations, such as personnel insertion techniques (hoist, rappel, fast rope), external load transport, and operations in remote and high-risk environments. In addition, Mr. Lotufo participated in international missions, including peacekeeping and rescue operations in challenging terrains, further strengthening his experience in complex and mission-critical aviation activities.

In the civilian sector, Mr. Lotufo has continued to operate in demanding environments as a helicopter captain, conducting passenger transport and logistics missions in remote areas, with a strong emphasis on safety, operational discipline, and procedural standardization.

His combined experience in training, operational leadership, and high-risk aviation environments positions him as a subject matter expert in helicopter operations, safety, and advanced pilot training. This expertise directly supports the proposed endeavor, particularly in the areas of structured training programs, operational standardization, and safety-focused aviation practices.

2.0 The Company

Vanguard Aviation Training, headquartered in Houston, Texas, will operate as a specialized aviation training and operational solutions company focused on improving safety, efficiency, and workforce readiness in helicopter operations across the United States.

The company will deliver advanced pilot training programs, operational standardization services, and safety-focused solutions designed for complex aviation environments. Its services will

support aviation operators, training organizations, and organizations involved in emergency response and mission-critical operations.

Vanguard Aviation Training will adopt a scalable and structured operational model, combining specialized expertise with standardized training delivery and performance-oriented methodologies derived from both military and civil aviation practices.

The organization will begin with a lean structure and progressively expand its workforce to support increasing demand and operational growth. By Year 5, the company is projected to maintain the following team structure:

Projected Organizational Structure (Year 5)

- **1 General Manager & Aviation Training and Operations Director – Mr. Luiz Henrique Garcez Lotufo:** Mr. Lotufo will be responsible for the company's strategic leadership, including overall business direction, development of training programs, and technical oversight of operations. His role will focus on executive decision-making, partnerships, and supervision of key operational areas, while delegating training delivery and support functions to specialized personnel.
- **2 Flight Instructors (Helicopter):** Responsible for delivering advanced flight training programs, conducting pilot instruction, and supporting pilot qualification and proficiency development.
- **2 NVG Training Specialists:** Focused on Night Vision Goggle (NVG) training, including specialized instruction for night operations and high-risk flight environments.
- **2 Aviation Safety Specialists:** Responsible for supporting safety programs, conducting risk assessments, and assisting in the implementation of safety and compliance procedures.
- **2 Operational Support Specialists:** Provide technical and operational support, including training logistics, documentation, and development of operational procedures.
- **2 Training Coordinators:** Manage training schedules, coordinate client engagement, and ensure efficient execution of training programs.
- **1 Instructional Design Specialist:** Responsible for developing structured training materials, manuals, and standardized instructional programs to support scalable training delivery.
- **2 Business Development Managers:** Lead business development efforts, establish strategic partnerships, and support client acquisition and revenue growth.
- **1 Administrative Manager:** Oversee administrative operations, financial coordination, and internal organizational processes.
- **1 Client Relations / Customer Success Specialist:** Responsible for managing client relationships, ensuring service quality, and supporting long-term customer engagement.

Vanguard Aviation Training's organizational structure is designed to support growth while allowing the Founder to operate primarily in a strategic and supervisory capacity. Operational execution, training delivery, and administrative functions will be carried out by qualified personnel, ensuring efficiency, scalability, and high standards of service.

2.1 Company's Target

Vanguard Aviation Training will focus on delivering advanced aviation training and operational support services designed to improve safety, efficiency, and workforce readiness in helicopter operations across the United States.

The company's primary objective is to support organizations operating in complex and high-risk aviation environments where operational reliability, pilot proficiency, and safety performance are critical. These include operators involved in emergency response, specialized aviation missions, and transportation activities requiring advanced technical capabilities.

Primary Market Focus

1. Aviation Operators and Helicopter Service Providers: Helicopter operators require highly trained pilots, standardized procedures, and strong safety frameworks to maintain operational reliability. Vanguard Aviation Training will support these operators through advanced pilot training, NVG instruction, and operational standardization programs aimed at improving performance and reducing risk.

Secondary Market Focus

2. Emergency Response and Public Safety Organizations: Organizations involved in search and rescue (SAR), disaster response, and emergency aviation operations require specialized training and mission readiness. The company will provide training programs and operational support to enhance response capabilities and safety in critical situations.

3. Aviation Training Organizations and Institutions: Flight schools and training centers often require advanced training modules and structured programs beyond standard pilot certification. Vanguard Aviation Training will support these organizations by providing specialized training, instructional frameworks, and standardized methodologies.

4. Government and Defense-Related Aviation Programs: Government-affiliated aviation units and contractors require structured training and operational consistency. The company will support these entities through advanced training solutions and workforce development programs, including initiatives focused on transitioning military personnel into civilian aviation roles.

Long-Term Vision

Vanguard Aviation Training aims to establish itself as a specialized provider of advanced aviation training and operational solutions across the United States. Over time, the company will:

- Expand advanced training programs (including NVG and mission-based training)
- Strengthen safety and operational standardization services
- Support workforce development in high-demand aviation roles
- Expand partnerships with aviation operators and training institutions
- Scale service delivery nationwide

2.2 Needs for the Company's Services

The aviation sector in the United States continues to face increasing demand for highly skilled pilots, advanced training programs, and structured safety practices, particularly in complex and high-risk operational environments.

Helicopter operations, especially those involving night flights, emergency response, and mission-critical activities, require advanced technical skills, standardized procedures, and strong safety frameworks. However, several challenges continue to impact the sector:

1. Increasing Operational Complexity

Modern aviation operations involve diverse mission profiles, challenging environments, and high-performance aircraft, requiring specialized training beyond standard certification.

Vanguard Aviation Training addresses this need by delivering advanced training programs focused on real-world operational scenarios, improving pilot readiness and performance.

2. Gaps in Advanced Training and Specialization

Many training programs focus on basic certification, with limited emphasis on advanced operational skills such as NVG operations, mission-based training, and high-risk flight environments.

The company will provide specialized training programs designed to bridge this gap and enhance pilot capability in complex operations.

3. Need for Stronger Safety and Risk Mitigation Practices

Operational risk remains a critical concern in aviation, particularly in environments requiring precision, coordination, and rapid decision-making.

Vanguard Aviation Training will support the implementation of structured safety practices, operational procedures, and risk mitigation strategies to improve safety outcomes.

4. Workforce Shortages and Transition Challenges

The aviation industry faces a shortage of highly qualified professionals, particularly in specialized helicopter operations. At the same time, military personnel transitioning to civilian aviation often require additional training aligned with industry standards.

The company will support workforce development through targeted training initiatives and programs designed to facilitate the transition of veterans into civilian aviation careers.

5. Lack of Standardization Across Operations

Inconsistent procedures and training approaches can impact operational efficiency and safety.

Vanguard Aviation Training will address this challenge by developing standardized training programs and operational frameworks that improve consistency and performance.

Meeting Industry Demand

To address these needs, Vanguard Aviation Training will provide:

- Advanced pilot training programs
- NVG and specialized operations training
- Safety and risk mitigation support
- Operational standardization frameworks
- Workforce development and veteran transition programs

Through these services, the company will contribute to improving aviation safety, strengthening workforce capabilities, and enhancing operational efficiency across the U.S. aviation sector.

2.3 Company's Expansion

Houston, Texas provides a strong strategic foundation for the growth of Vanguard Aviation Training due to its demand for aviation services, proximity to critical operations, and access to a skilled workforce.

The company will expand through a structured, multi-phase strategy focused on service development, market expansion, and operational scalability.

Phase 1: Core Training and Operational Services

During its initial phase, Vanguard Aviation Training will focus on delivering core services, including advanced pilot training, NVG instruction, and safety-focused operational support.

This phase will establish the company's presence by addressing immediate market needs related to pilot training, safety improvement, and operational performance.

Phase 2: Advanced Training and Workforce Development

As the company grows, it will expand its service portfolio to include advanced mission-based training programs, expanded safety solutions, and structured workforce development initiatives, including programs for military veteran transition.

This phase will strengthen the company's position as a specialized training provider and increase its impact on workforce readiness.

Phase 3: National Expansion and Strategic Partnerships

In its advanced stage, Vanguard Aviation Training will expand its services nationwide through a combination of on-site training, partnerships, and scalable program delivery.

The company will establish strategic partnerships with aviation operators, training institutions, and organizations involved in emergency response and specialized aviation services.

Team Growth

To support expansion, the company will progressively build a multidisciplinary team, including flight instructors, safety specialists, training coordinators, and business development professionals.

Long-Term Growth Outlook

Through this structured expansion strategy, Vanguard Aviation Training aims to become a recognized provider of advanced aviation training and operational solutions across the United States.

Under the leadership of Mr. Luiz Henrique Garcez Lotufo, the company will contribute to improving aviation safety, strengthening workforce development, and supporting critical aviation operations nationwide.

2.4 Company's Economic Benefits

Guided by the leadership and technical expertise of Mr. Luiz Henrique Garcez Lotufo, Vanguard Aviation Training is positioned to generate consistent growth and meaningful economic contributions over its first five years of operation.

The company's financial projections reflect a scalable and expertise-driven business model supported by increasing demand for advanced aviation training, safety programs, and operational standardization services in the United States.

In its first year of operation, Vanguard Aviation Training is projected to generate approximately $510,000 in revenue, reflecting initial demand for specialized training services and operational support. As the company expands its client base and service capacity, revenues are expected to grow steadily, reaching approximately $2,510,628 by Year 5.

Gross margins are projected to increase from $469,200 in Year 1 to $2,309,778 in Year 5, demonstrating the efficiency and scalability of a training-based service model. Net profits are also expected to grow consistently, from $63,130 in Year 1 to $418,309 by Year 5, reflecting operational maturity and increased market penetration.

Tax Revenue Contribution

In addition to its financial performance, the company is expected to generate significant tax contributions at both the federal and state levels, as well as through payroll-related taxes.

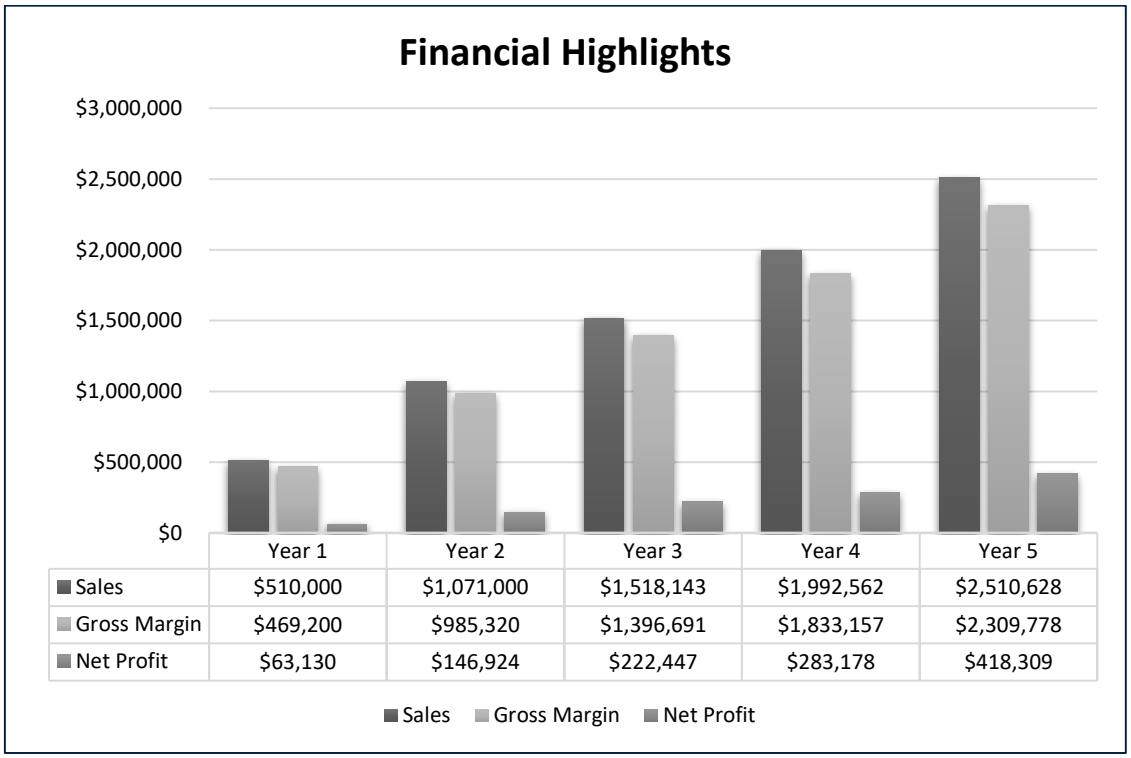
- Federal and state taxes are projected to total approximately $419,421 over five years
- Payroll taxes are projected to reach approximately $441,858 over the same period
- Total tax contributions are expected to reach approximately $861,279 over five years

These figures reflect the company's projected growth, workforce expansion, and increasing economic activity.

Through a combination of specialized expertise, scalable service delivery, and strong market demand, Vanguard Aviation Training is positioned to achieve sustained financial growth while generating measurable economic benefits.

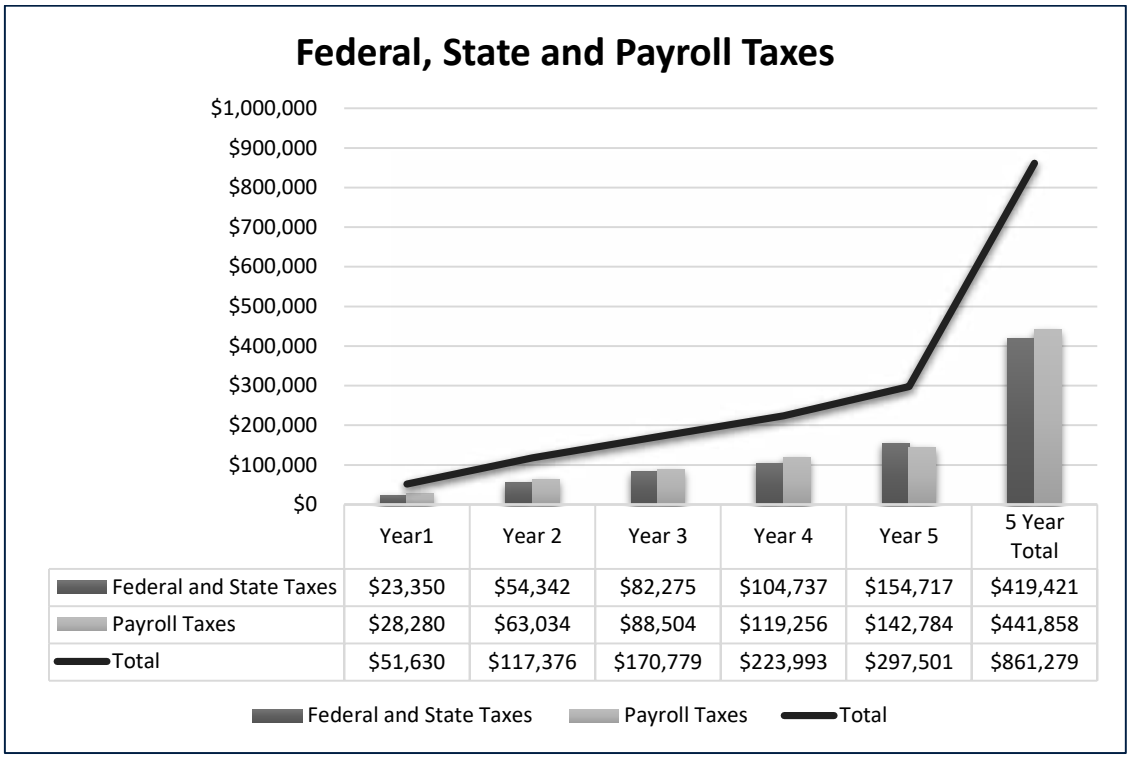
Under the leadership of Mr. Luiz Henrique Garcez Lotufo, the company will contribute to job creation, workforce development, tax revenue generation, and improvements in aviation safety and operational performance across the United States.

2.4.1 Financial Highlights Chart



	Year 1	Year 2	Year 3	Year 4	Year 5
Sales	$510,000	$1,071,000	$1,518,143	$1,992,562	$2,510,628
Gross Margin	$469,200	$985,320	$1,396,691	$1,833,157	$2,309,778
Net Profit	$63,130	$146,924	$222,447	$283,178	$418,309

2.4.2 Federal, State and Payroll Taxes Chart



	Year1	Year 2	Year 3	Year 4	Year 5	5 Year Total
Federal and State Taxes	$23,350	$54,342	$82,275	$104,737	$154,717	$419,421
Payroll Taxes	$28,280	$63,034	$88,504	$119,256	$142,784	$441,858
Total	$51,630	$117,376	$170,779	$223,993	$297,501	$861,279

2.5 Summary of Investment

Vanguard Aviation Training, under the leadership of Mr. Luiz Henrique Garcez Lotufo, will allocate a total initial investment of **$30,000** to support its setup and early-stage operations in the United States.

This investment will be funded through personal capital and will be used to establish the company's operational structure, develop training capabilities, and support initial business development activities. The company is designed to operate with a lean and scalable model, focusing on specialized expertise rather than capital-intensive infrastructure.

Startup Expenses

The company's startup expenses are estimated at approximately **$24,500** and will be allocated across essential operational areas required to launch Vanguard Aviation Training.

Key allocations include:

- **Business Formation and Legal Compliance ($2,500):** Covers company registration, legal structuring, and regulatory compliance.
- **Insurance ($4,000):** Includes general and professional liability insurance necessary for aviation-related services.

- **Training Materials and Program Development ($3,500):** Development of training manuals, instructional content, and standardized operational procedures.
- **Equipment and Technology ($5,000):** Acquisition of computers, software, and tools required for training delivery and business operations.
- **Marketing and Business Development ($4,000):** Website development, branding, and initial client acquisition efforts.
- **Travel and Business Development Activities ($3,000):** Supports networking, client meetings, and partnership development.
- **Office and Administrative Setup ($2,500):** Covers initial office setup, communication tools, and administrative infrastructure.

Working Capital

In addition to startup expenses, Vanguard Aviation Training will maintain approximately **$5,500** in working capital reserves to support early-stage operations.

These funds will provide liquidity to cover initial operating costs, including administrative expenses, business development activities, and service delivery support during the initial growth phase.

Total Investment Requirement

The total initial funding requirement for Vanguard Aviation Training is estimated at:

- **Total Startup Expenses:** $24,500
- **Working Capital:** $5,500
- **Total Investment: $30,000**

With a total investment of $30,000, Vanguard Aviation Training is well positioned to establish its operations and begin delivering specialized aviation training and operational support services.

This investment demonstrates Mr. Lotufo's commitment to building a sustainable and scalable company capable of improving aviation safety, workforce readiness, and operational performance in the United States.

2.5.1 Startup Requirements Table

Startup	
Requirements	
Startup Expenses	
Business Formation and Legal Compliance	$2,500
Insurance	$4,000
Training Materials and Program Development	$3,500
Equipment and Technology	$5,000
Marketing and Business Development	$4,000
Travel and Business Development Activities	$3,000
Office and Administrative Setup	$2,500
Total Startup Expenses	$24,500
Startup Assets	
Cash Required	$5,500
Startup Inventory	$0
Other Current Assets	$0
Long-term Assets	$0
Total Assets	$5,500
Total Requirements	**$30,000**

3.0 Company's Services

Vanguard Aviation Training will provide a portfolio of specialized aviation services designed to improve pilot proficiency, operational safety, and workforce readiness in complex helicopter operations across the United States. The company's services are structured to address critical gaps in advanced training, operational standardization, and safety performance, particularly in high-risk and mission-critical environments.

The company's service model combines advanced pilot training, structured operational methodologies, and safety-focused practices derived from both military and civil aviation experience. All services are designed to be scalable and adaptable to the specific operational needs of clients.

1. Advanced Pilot Training and NVG Operations

Vanguard Aviation Training will deliver advanced helicopter pilot training programs focused on enhancing technical proficiency, situational awareness, and decision-making in complex operational environments.

A key component of this service is specialized training in Night Vision Goggle (NVG) operations, which enables pilots to safely conduct night missions under low-visibility conditions. This training is critical for operations requiring precision, coordination, and high levels of safety.

The training programs will include:

- Advanced flight techniques for complex and high-risk environments
- NVG operational procedures, limitations, and safety protocols
- Scenario-based training to simulate real-world mission conditions
- Emergency procedures and decision-making under pressure
- Crew coordination and communication strategies

These programs are designed not only to improve pilot skills but also to enhance operational readiness and reduce the likelihood of incidents in demanding flight environments.

2. Aviation Safety and Risk Management Solutions

Vanguard Aviation Training will provide structured safety and risk management solutions aimed at improving operational reliability and reducing risk exposure in aviation activities.

This service focuses on supporting organizations in strengthening their safety practices through the implementation of structured methodologies and operational frameworks.

Key components include:

- Development and implementation of safety management practices
- Operational risk identification and mitigation strategies
- Safety assessments and performance evaluations
- Standardization of safety procedures and protocols
- Support for compliance with industry safety standards

By improving safety structures and promoting a proactive safety culture, the company helps clients reduce operational risks and improve overall performance.

3. Operational Standardization and Efficiency Enhancement

This service is focused on improving consistency, efficiency, and reliability across aviation operations through the development and implementation of standardized procedures.

Vanguard Aviation Training will support organizations in aligning their operations with structured methodologies that enhance performance and reduce variability.

Services include:

- Development of standardized operational procedures (SOPs)
- Optimization of operational workflows and processes
- Integration of best practices from military and civil aviation

- Performance improvement strategies for flight operations
- Training program standardization and documentation

These solutions help organizations achieve greater operational consistency, improve efficiency, and enhance overall safety outcomes.

4. Emergency Response, SAR, and Workforce Development Programs

Vanguard Aviation Training will provide specialized training programs focused on search and rescue (SAR), emergency response operations, and workforce development, addressing critical needs in high-risk and mission-critical aviation sectors.

The company will deliver training designed to prepare aviation professionals for real-world emergency scenarios, including:

- Search and rescue (SAR) mission training
- Disaster response and emergency aviation operations
- Coordination and execution of complex missions
- Rapid decision-making in high-pressure environments

Veteran Workforce Development Initiative

As part of its workforce development strategy, Vanguard Aviation Training will implement targeted programs to support the transition of military veterans into civilian aviation careers.

Military personnel often possess advanced operational experience, discipline, and technical skills; however, additional training is frequently required to align with civilian aviation standards and certification requirements.

The company will address this gap by providing:

- Transition-focused training aligned with civilian aviation requirements
- Skill adaptation programs for military-to-civilian operations
- Advanced training in NVG and specialized mission profiles
- Career preparation and integration into the civilian aviation workforce

This initiative contributes to both workforce development and public benefit by facilitating the reintegration of highly trained professionals into critical aviation roles.

4.0 Industry Overview

The aviation industry plays a critical role in supporting economic activity, public safety, and infrastructure operations across the United States. Helicopter operations, in particular, are

essential for a wide range of applications, including emergency response, search and rescue (SAR), transportation, infrastructure support, and specialized mission-based activities.

As operational demands increase, the aviation sector faces growing pressure to maintain high levels of safety, efficiency, and reliability, particularly in complex and high-risk environments. Helicopter operations often involve challenging conditions such as low visibility, night flights, remote locations, and time-sensitive missions, requiring highly trained personnel and advanced operational capabilities.

In recent years, the industry has experienced increasing demand for advanced pilot training and specialized operational skills, driven by the need to improve safety performance and reduce operational risks.[4] While basic pilot certification programs are widely available, there remains a significant gap in advanced training, particularly in areas such as Night Vision Goggle (NVG) operations, mission-based training, and high-risk flight environments.

At the same time, aviation organizations must continuously improve operational procedures and safety frameworks to address the complexity of modern flight operations.[5] Inconsistent training standards and lack of operational standardization can lead to inefficiencies and increased risk exposure. As a result, there is a growing need for structured training programs and standardized methodologies that enhance operational consistency and performance.

Another key challenge within the aviation industry is workforce development. The sector faces ongoing shortages of highly qualified pilots and aviation professionals, particularly in specialized helicopter operations.[6] In parallel, a significant number of military personnel transition into civilian careers each year, creating an opportunity to integrate highly skilled professionals into the aviation workforce. However, this transition often requires additional training aligned with civilian standards and operational requirements.

Technological advancements and evolving operational demands have also increased the importance of safety-focused practices and risk management strategies. Aviation operators must ensure that personnel are prepared to operate in complex scenarios, including emergency response and mission-critical operations, where decision-making, coordination, and technical proficiency are essential.

Within this industry context, companies that provide advanced training, operational standardization, and safety-focused solutions play an essential role in supporting aviation operators and organizations. These services contribute to improving pilot performance, reducing operational risks, and enhancing the overall reliability of aviation activities.

Vanguard Aviation Training will operate within this evolving and high-demand environment by delivering specialized aviation training programs, safety solutions, and operational frameworks

[4] https://www.gao.gov/products/gao-23-105571
[5] https://www.iata.org/en/pressroom/2024-releases/2024-10-01-01/
[6] https://www.helicoptersafe.com/post/the-enduring-helicopter-pilot-shortage-2024

designed to address current industry challenges. By focusing on advanced training, workforce development, and operational efficiency, the company will contribute to strengthening aviation safety, improving workforce readiness, and supporting critical aviation operations across the United States.

4.1 Industry Analysis

The aviation and helicopter operations industry in the United States is a critical component of the country's economic infrastructure, supporting sectors such as emergency response, transportation, public safety, and infrastructure operations. Within this ecosystem, the demand for specialized helicopter services and advanced pilot training continues to expand, driven by increasing operational complexity and workforce shortages.

Industry Size and Current Market Conditions

The North American helicopter market was valued at approximately $18.5 billion in 2024 and is projected to reach approximately $33.75 billion by 2033, reflecting steady growth driven by demand across emergency medical services (EMS), public safety, and specialized aviation operations.[7]

In the United States specifically, the commercial helicopter segment alone represents a significant portion of the market, generating approximately $2.83 billion in 2024, with projections to reach $3.88 billion by 2034.[8]

Helicopter operations play a vital role in:

- Emergency medical services (EMS), accounting for over 35% of helicopter usage in some segments [9]
- Air medical transport, with over 400,000 patient transports annually in the U.S.
- Search and rescue (SAR), disaster response, and firefighting operations
- Law enforcement and homeland security
- Infrastructure support and remote area transportation

These figures highlight the critical role of helicopters in time-sensitive and mission-critical operations across the country.

[7] https://www.globenewswire.com/news-release/2026/01/05/3212999/28124/en/North-America-s-Helicopters-Market-to-Witness-6-89-CAGR-During-2025-2033-Analysis-of-Investment-Opportunities-Competitive-Strategies-and-Industry-Developments.html
[8] https://www.6wresearch.com/industry-report/united-states-us-commercial-helicopter-market
[9] https://dataintelo.com/report/global-emergency-medical-services-ems-helicopter-market

Pilot Training Market and Workforce Demand

The demand for aviation training services is expanding rapidly due to a growing shortage of qualified pilots.

The U.S. pilot training market was valued at approximately $1.57 billion in 2022 and is projected to grow to approximately $4.93 billion by 2030, representing a strong compound annual growth rate (CAGR) of 15.4%.[10]

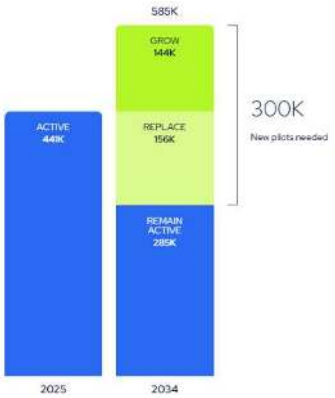


Globally, the flight training market is expected to grow from approximately $10.61 billion in 2025 to $24.86 billion by 2032, with a CAGR of approximately 12.9%.

This growth is largely driven by:

- Retirement of experienced pilots
- Expansion of aviation operations
- Increased regulatory requirements for training
- Growing demand for specialized training programs

In addition, industry forecasts indicate that over 300,000 new pilots will be needed globally over the next decade , reinforcing the urgency of workforce development.[11]



[10] https://www.fortunebusinessinsights.com/u-s-pilot-training-market-108918
[11] https://www.cae.com/2025-aviation-talent-forecast/pilot

Pilot Shortage and Workforce Gap

One of the most critical challenges facing the aviation industry is the shortage of qualified pilots, particularly in specialized helicopter operations.

Industry surveys indicate that nearly 90% of helicopter professionals expect a pilot shortage in the coming years.[12] This shortage is driven by:

- Aging workforce and retirements
- Increasing demand for aviation services
- Reduced pipeline of military-trained pilots transitioning to civilian roles

This gap creates a significant need for advanced training programs and workforce development initiatives.

Key Industry Drivers

Several factors are driving the growth of the aviation and helicopter training industry:

1. Expansion of Emergency and Public Safety Operations

Demand for helicopter services continues to grow in emergency medical transport, disaster response, and firefighting, all of which require highly trained pilots and specialized operational capabilities.

2. Increasing Operational Complexity

Modern helicopter operations involve challenging environments such as night operations, low visibility, and mission-critical scenarios, increasing the need for advanced training such as NVG operations and scenario-based instruction.

3. Workforce Development Needs

The shortage of skilled aviation professionals has created a strong demand for training providers capable of preparing pilots for complex operational roles.

4. Transition of Military Personnel

A significant number of military personnel transition into civilian careers each year, creating an opportunity to integrate experienced professionals into the aviation workforce. However, this transition requires structured training aligned with civilian standards.

Future Industry Trends

The aviation training and helicopter operations industry is expected to continue evolving, driven by technological advancements and increasing demand:

[12] https://www.bls.gov/oes/2023/may/oes532012.htm

- Growth in advanced training programs, including simulation-based and scenario-based training
- Expansion of night operations and NVG training requirements
- Increased reliance on helicopters in emergency and disaster response operations
- Development of next-generation aircraft and urban air mobility solutions
- Greater emphasis on safety, standardization, and risk management frameworks

The North American helicopter market is projected to grow at a CAGR of approximately 6.5% through 2035, reflecting sustained demand and technological advancement.[13]

The aviation training and helicopter operations industry in the United States presents strong growth potential, supported by increasing demand, workforce shortages, and expanding operational complexity.

With a rapidly growing training market, a significant shortage of qualified pilots, and increasing reliance on helicopter operations in critical sectors, there is a clear need for specialized training providers capable of delivering advanced, safety-focused, and operationally relevant programs.

Within this context, Vanguard Aviation Training is well positioned to operate in a high-demand and expanding market, contributing to workforce development, aviation safety, and operational efficiency across the United States.

4.2 Market Segmentation

The aviation and pilot training industry in the United States is composed of multiple segments defined by operational purpose, end users, and training requirements. Understanding these segments is essential to positioning Vanguard Aviation Training within high-demand and high-impact areas of the market.

The industry can be segmented based on end-user categories, operational applications, and training specialization needs, reflecting the diversity and complexity of aviation activities.

Segmentation by End Users

The U.S. aviation market is broadly segmented into three primary end-user groups:

1. Civil and Commercial Aviation Operators

This segment includes helicopter operators providing services such as transportation, logistics, and specialized aviation missions. These organizations require highly trained pilots and standardized operational procedures to maintain safety and efficiency.

[13] https://www.fortunebusinessinsights.com/industry-reports/helicopter-market-101685

This is one of the most relevant segments for Vanguard Aviation Training, as these operators depend on continuous training and performance improvement to support daily operations.

2. Government and Public Safety Organizations

This segment includes federal, state, and local agencies such as:

- Law enforcement aviation units
- Emergency medical services (EMS)
- Search and rescue (SAR) teams
- Disaster response units

These organizations operate in mission-critical environments and require advanced, scenario-based training and high levels of operational readiness.

3. Defense and Military-Related Aviation

Military aviation represents a significant segment of the industry, particularly in rotorcraft operations and training programs.

This segment is highly relevant for workforce development, as a large number of trained military pilots transition into civilian roles each year. However, these professionals often require additional training aligned with civilian aviation standards.

Segmentation by Operational Application

Helicopter operations can be segmented based on their primary application:

1. Emergency Response and Medical Services (EMS)

This is one of the largest and most critical segments, with helicopters playing a vital role in rapid medical transport and life-saving missions.

These operations require advanced pilot training, including night operations and high-pressure decision-making.

2. Search and Rescue (SAR) and Disaster Response

SAR operations involve complex mission profiles in challenging environments, requiring specialized training in coordination, navigation, and risk management.

This segment strongly aligns with Vanguard Aviation Training's expertise.

3. Law Enforcement and Public Safety

Helicopters are widely used in surveillance, patrol, and tactical operations. These missions demand high levels of precision, coordination, and operational discipline.

4. Commercial and Specialized Aviation Services

This segment includes transportation, logistics, infrastructure support, and operations in remote or hard-to-access areas.

Helicopters are essential in environments where fixed-wing aircraft cannot operate efficiently.

Segmentation by Training Type and Specialization

The pilot training market itself is segmented based on the type of training provided:

1. Basic and Certification Training

Includes private, commercial, and airline transport pilot certifications. This segment is widely served by traditional flight schools.

2. Advanced and Specialized Training

This includes:

- Night Vision Goggle (NVG) training
- Mission-based training
- Emergency and scenario-based training
- Recurrent and proficiency training

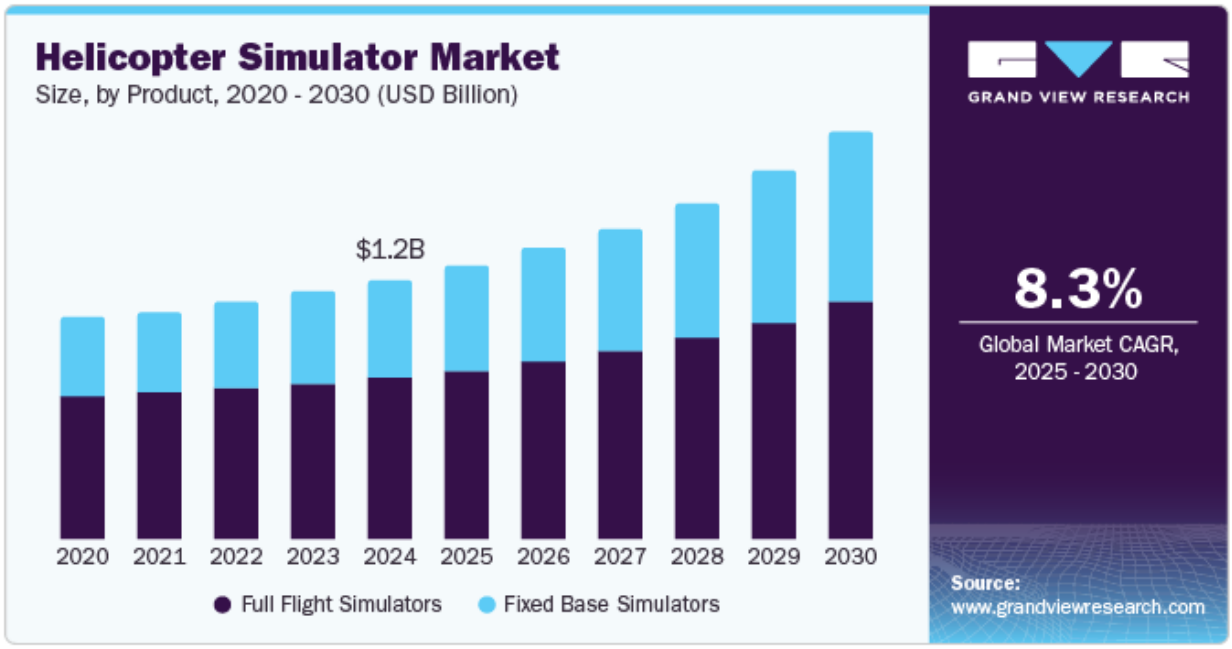
This segment represents a high-value niche with increasing demand due to operational complexity and safety requirements.

3. Simulation-Based Training

Simulation is becoming an increasingly important part of pilot training, allowing operators to improve safety and reduce costs.

The helicopter simulator market alone reached approximately $1.15 billion in 2024, reflecting strong demand for advanced training environments.[14]

[14] https://www.grandviewresearch.com/industry-analysis/helicopter-simulator-market



Simulation-based training is widely used across:

- Military aviation
- Emergency services
- Commercial operators

4. Workforce Development and Transition Training

This segment focuses on preparing professionals for specific roles, including:

- Transition of military veterans into civilian aviation
- Upskilling of experienced pilots
- Specialized operational training

This is a rapidly growing segment due to workforce shortages and the need for highly qualified personnel.

Target Market Positioning

Vanguard Aviation Training will primarily focus on high-value segments within the industry, including:

- Advanced and specialized pilot training
- Emergency response and SAR operations
- Workforce development and veteran transition programs
- Operational standardization and safety improvement services

By focusing on these segments, the company positions itself in areas with:

- High demand
- Limited competition (specialized niche)
- Strong alignment with national interest

The aviation industry is composed of diverse and interdependent segments, each with specific operational and training needs. While basic training services are widely available, there is a growing demand for specialized training, safety-focused solutions, and workforce development programs.

Vanguard Aviation Training is strategically positioned within high-demand segments that require advanced expertise, particularly in specialized training, operational safety, and workforce transition. This positioning allows the company to address critical gaps in the market while contributing to the development of a safer and more efficient aviation ecosystem in the United States.

4.3 Business Location

Vanguard Aviation Training will be established in Houston, Texas, a location that offers a highly strategic environment for aviation operations, workforce development, and long-term business growth. Houston is widely recognized as one of the leading economic centers in the United States, with a diversified economy that includes strong sectors in aviation, aerospace, transportation, and advanced industries.

The aviation sector in Texas provides a particularly strong foundation for the company's operations. According to the Texas Department of Transportation, the aviation industry in the state supports more than 778,000 jobs, generates over $30.1 billion in payroll, and contributes approximately $94.3 billion in total economic output, demonstrating the scale and economic importance of aviation activities across the state.[15] Additionally, general aviation alone accounts for more than 48,000 jobs and $9.3 billion in annual economic impact, reinforcing the relevance of training and specialized aviation services within this ecosystem.[16]

Houston itself stands out as a major aviation hub with a well-developed infrastructure that directly supports aviation-related businesses. The Houston Airport System, which includes George Bush Intercontinental Airport, William P. Hobby Airport, and Ellington Airport, generates approximately $40.6 billion in annual economic impact and supports more than 200,000 jobs in the region.[17] These figures highlight the intensity of aviation activity in the region and the strong demand for skilled professionals, operational support, and training services.

[15] https://www.txdot.gov/projects/planning/aviation-capital-improvement/economic-impact.html
[16] https://aviationacrossamerica.org/economic-impact/texas/
[17] https://www.fly2houston.com/airport-business/newsroom/press-releases/item/new-houstons-airports-pump-406-billion-into-annual-economy/

The region also benefits from a diverse aviation infrastructure that includes commercial airports, general aviation facilities, and specialized operational bases. For example, Ellington Airport operates as a dual-use facility supporting both civilian and military aviation activities, with more than 115,000 aircraft operations annually, reinforcing the presence of complex and mission-oriented aviation operations in the Houston area. This type of environment is particularly aligned with Vanguard Aviation Training's focus on advanced operations, safety, and mission-based training.

In addition to infrastructure, Houston offers access to a highly skilled and continuously developing workforce. Texas is home to tens of thousands of licensed pilots, aviation professionals, and training institutions, as well as a significant number of military personnel transitioning into civilian careers. This creates a strong talent pipeline, particularly relevant for the company's workforce development and veteran transition initiatives, which aim to integrate highly trained individuals into specialized aviation roles.

Furthermore, Houston's position as a major transportation and logistics hub, combined with its strong economic base and continuous investment in infrastructure, supports sustained demand for aviation services. The city's connectivity, industrial activity, and large-scale operations contribute to an environment where aviation plays a critical role in supporting economic productivity, emergency response, and infrastructure operations.

In this context, Houston provides an ideal location for Vanguard Aviation Training to establish and expand its operations. The combination of a strong aviation ecosystem, significant economic impact, advanced infrastructure, and access to a skilled workforce creates a favorable environment for delivering high-value training services and supporting the broader aviation industry in the United States.

5.0 Strategy and Implementation

The Strategy and Implementation section is essential to demonstrate how Vanguard Aviation Training will position itself within the aviation industry, attract clients, and achieve sustainable growth. The company's approach is based on delivering high-value, specialized training services, building strong industry relationships, and leveraging both digital and in-person channels to reach its target market.

Below are the key components of the company's strategy:

1. SWOT Analysis: Vanguard Aviation Training will conduct a comprehensive evaluation of its strengths, weaknesses, opportunities, and threats to support strategic decision-making. The company's strengths include the founder's extensive experience in helicopter operations, advanced training capabilities, and expertise in NVG and mission-based operations. Opportunities are driven by increasing demand for specialized pilot training, workforce

shortages, and the transition of military veterans into civilian aviation roles. Potential challenges include market competition and the need to continuously adapt to evolving industry standards.

2. Website: The company's website will serve as a primary digital platform to present its services, technical expertise, and value proposition. It will provide detailed information about training programs, including advanced pilot training, NVG operations, safety solutions, and workforce development initiatives. The website will also highlight the company's focus on operational excellence and its role in supporting veteran transition into civilian aviation careers.

3. Digital Marketing: Vanguard Aviation Training will implement a targeted digital marketing strategy to reach aviation operators, training organizations, and public safety entities. This strategy will include search engine optimization (SEO), content marketing focused on aviation safety and training, email campaigns, and targeted advertising. These efforts will position the company as a specialized provider of advanced aviation training and operational solutions.

4. Social Media: The company will use platforms such as LinkedIn, X, Facebook, and Instagram to share industry insights, training highlights, and educational content related to aviation safety and operations. Social media will also be used to reinforce brand positioning, promote training programs, and engage with aviation professionals and organizations.

5. Trade Shows and Industry Events: Participation in aviation-related events, conferences, and trade shows will play a key role in the company's growth strategy. These events provide opportunities to establish relationships with aviation operators, government agencies, and training institutions, as well as to stay informed about industry trends and evolving training requirements.

6. Referrals and Strategic Relationships: Vanguard Aviation Training will prioritize building strong relationships with clients and industry partners to generate referrals and repeat business. Given the specialized nature of aviation services, word-of-mouth recommendations and professional networks will be a critical driver of growth. The company will also foster relationships with organizations that support veteran transition, further strengthening its market positioning.

In Sections 5.3 and 5.4, the company will further detail its sales strategy and financial projections. The sales strategy will outline how Vanguard Aviation Training will identify opportunities, engage clients, and secure long-term contracts for training and operational support services. The sales forecast will present projected revenue growth based on market demand, service expansion, and increasing adoption of specialized training programs.

5.1 Swot Analysis

Vanguard Aviation Training's strategic positioning within the aviation training and operational support sector is supported by a combination of strong technical expertise, growing market demand, and clear opportunities for expansion. The following SWOT analysis outlines the company's internal strengths and weaknesses, as well as external opportunities and threats.

Strengths

- Strong leadership with extensive experience in helicopter operations, training, and mission-critical aviation environments
- Specialized expertise in Night Vision Goggle (NVG) operations and advanced flight training
- Experience in both military and civilian aviation, providing a unique and differentiated skill set
- Focus on high-value, specialized training services with limited direct competition
- Scalable business model with low initial capital requirements
- Ability to integrate safety, training, and operational standardization into a single service offering
- Strategic location in Houston, Texas, with strong aviation demand and infrastructure
- Alignment with workforce development initiatives, including veteran transition programs

Threats

- Competitive pressure from established flight schools and aviation training providers
- Economic fluctuations that may impact discretionary training budgets
- Regulatory changes affecting aviation training requirements and certifications

Opportunities

- Growing demand for advanced pilot training and specialized aviation services
- Increasing need for NVG training due to expansion of night and mission-critical operations
- Shortage of qualified pilots in the U.S. aviation industry
- Expansion of emergency response and search and rescue (SAR) operations
- Increasing focus on aviation safety and risk management practices
- Demand for operational standardization and performance improvement
- Opportunities to support the transition of military veterans into civilian aviation roles
- Potential partnerships with aviation operators, training institutions, and government-related entities

Weaknesses

- Limited brand recognition during the initial stages of operation
- Dependence on founder expertise in early phases of the business
- Limited internal resources compared to larger, established competitors

5.2 Website and Digital Marketing

Vanguard Aviation Training will establish a strong digital presence to enhance credibility, attract clients, and support business growth. The company's website and digital marketing strategy will play a key role in reaching aviation operators, training organizations, and public safety entities across the United States.

Website

The company's website will serve as the central platform to present its services, expertise, and value proposition. It will clearly communicate the company's focus on advanced aviation training, safety solutions, and operational support.

Key features will include:

- Professional and modern design aligned with the aviation industry
- Clear presentation of core services, including pilot training, NVG operations, safety programs, and workforce development initiatives
- Educational content such as articles and training insights to demonstrate technical expertise
- Easy contact options for client inquiries and service requests
- Full mobile optimization
- SEO structure to improve visibility among aviation professionals and organizations

Digital Marketing

Vanguard Aviation Training will implement a focused digital marketing strategy to increase brand visibility and generate qualified leads within the aviation sector.

Key components include:

- **Search Engine Optimization (SEO):** Optimization of content using keywords related to pilot training, NVG operations, aviation safety, and specialized training programs
- **Pay-Per-Click (PPC):** Targeted advertising campaigns to reach aviation operators and organizations
- **Email Marketing:** Communication with potential clients through updates, insights, and training-related content
- **Content Marketing:** Publication of articles and materials focused on aviation safety, operational efficiency, and training best practices
- **Social Media and Professional Networking:** Use of platforms such as LinkedIn to connect with aviation professionals and share relevant content
- **Analytics and Performance Tracking:** Monitoring of engagement, traffic, and lead generation to continuously improve marketing effectiveness

Through this strategy, the company will strengthen its market presence, build credibility, and attract clients seeking specialized aviation training services.

5.3 Sales Strategy

Vanguard Aviation Training will implement a structured sales strategy focused on client acquisition, relationship development, and long-term retention within the aviation sector.

The company will prioritize understanding the needs of aviation operators, training organizations, and public safety entities, allowing it to tailor its services to address operational challenges related to safety, training, and performance.

Its value proposition is based on specialized expertise in advanced pilot training, NVG operations, operational standardization, and safety-focused solutions, enabling clients to improve performance and reduce operational risk.

The company will focus on building strong professional relationships through consistent service delivery and reliable communication. Referrals and industry connections will play an important role in expanding the client base, particularly given the relationship-driven nature of the aviation industry.

Digital channels, including the company's website and professional platforms, will support client engagement and visibility. Sales efforts will also be supported by technical expertise, allowing the company to effectively communicate the value of its services.

Performance will be monitored through key indicators such as client acquisition, conversion rates, and customer retention, ensuring continuous improvement and sustainable growth.

5.4 Sales Forecast

Vanguard Aviation Training's sales forecast reflects a structured and scalable growth strategy based on increasing demand for advanced aviation training, safety solutions, and workforce development programs in the United States.

The company will generate revenue through four core service lines: Advanced Pilot Training and NVG Operations, Aviation Safety and Risk Management Solutions, Operational Standardization and Efficiency Enhancement, and Emergency Response, SAR, and Workforce Development Programs.

In Year 1, the company is projected to deliver 46 total service units, generating approximately $510,000 in revenue. As market presence expands and demand increases, total unit sales are expected to grow steadily, reaching 186 units by Year 5, with total revenues projected to reach approximately $2,510,628.

Among the service lines, Emergency Response, SAR, and Workforce Development Programs are expected to generate the highest revenue over time, reflecting strong demand for specialized training and workforce development, including veteran transition initiatives. Aviation Safety and

Risk Management Solutions and Operational Standardization services are also projected to contribute significantly, driven by increasing industry focus on safety, efficiency, and regulatory compliance. Meanwhile, Advanced Pilot Training and NVG Operations will provide consistent revenue growth as demand for specialized pilot training continues to expand.

Pricing is expected to increase gradually over the five-year period, reflecting the company's growing reputation, expanded capabilities, and increased value of its specialized services.

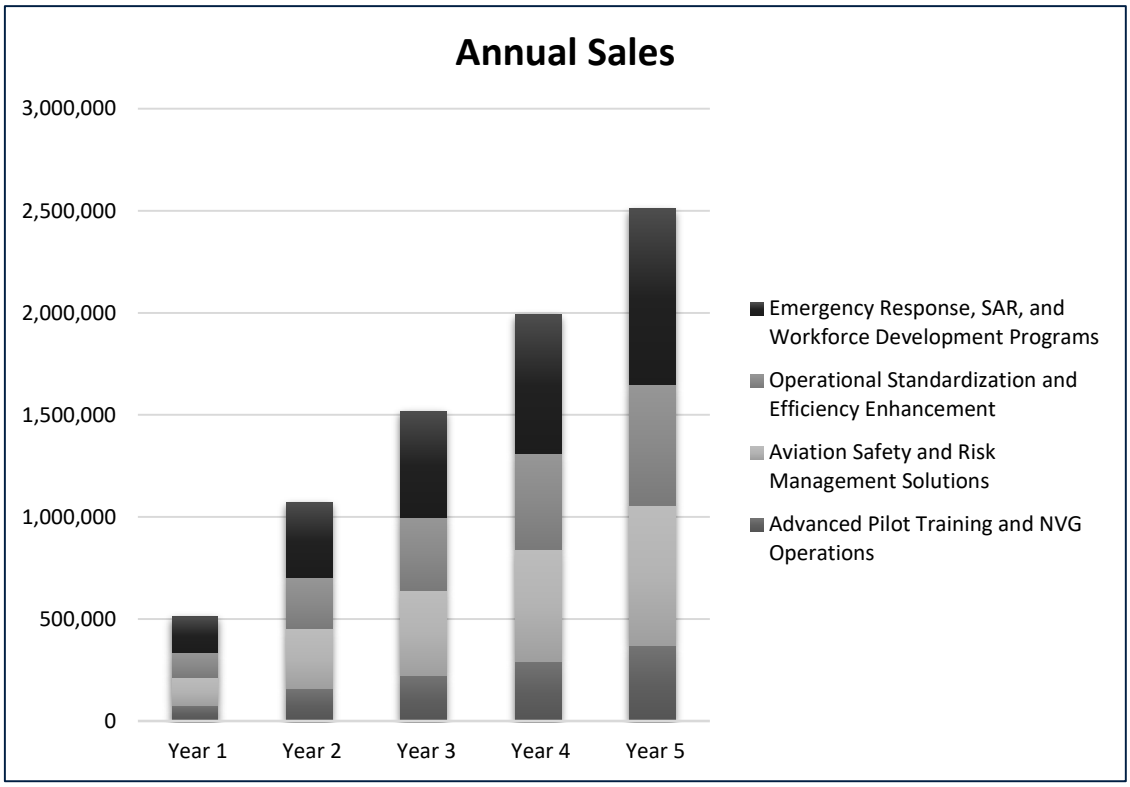
Direct costs will remain relatively low compared to revenue, reflecting the company's knowledge-based business model. Total direct costs are projected to increase from approximately $40,800 in Year 1 to $200,850 by Year 5, while maintaining strong gross margins throughout the period.

Overall, the sales forecast demonstrates a consistent growth trajectory supported by increasing demand, scalable service delivery, and a strong positioning within high-value segments of the aviation training market. This projection reinforces the company's financial viability and its ability to expand operations while maintaining operational efficiency.

5.4.1 Annual Sales Forecast Table and Chart

Sales Forecast					
	Year 1	Year 2	Year 3	Year 4	Year 5
Unit Sales					
Advanced Pilot Training and NVG Operations	15	30	41	51	61
Aviation Safety and Risk Management Solutions	14	28	38	47	57
Operational Standardization and Efficiency Enhancement	10	20	27	34	41
Emergency Response, SAR, and Workforce Development Programs	7	14	19	24	28
Total Unit Sales	46	92	124	155	186
Unit Prices	Year 1	Year 2	Year 3	Year 4	Year 5
Advanced Pilot Training and NVG Operations	$5,000.00	$5,250.00	$5,512.50	$5,788.13	$6,077.53
Aviation Safety and Risk Management Solutions	$10,000.00	$10,500.00	$11,025.00	$11,576.25	$12,155.06
Operational Standardization and Efficiency Enhancement	$12,000.00	$12,600.00	$13,230.00	$13,891.50	$14,586.08
Emergency Response, SAR, and Workforce Development Programs	$25,000.00	$26,250.00	$27,562.50	$28,940.63	$30,387.66
Sales					
Advanced Pilot Training and NVG Operations	$75,000	$157,500	$223,256	$293,024	$369,210
Aviation Safety and Risk Management Solutions	$140,000	$294,000	$416,745	$546,978	$689,192

Operational Standardization and Efficiency Enhancement	$120,000	$252,000	$357,210	$468,838	$590,736
Emergency Response, SAR, and Workforce Development Programs	$175,000	$367,500	$520,931	$683,722	$861,490
Total Sales	$510,000	$1,071,000	$1,518,143	$1,992,562	$2,510,628
Direct Unit Costs	Year 1	Year 2	Year 3	Year 4	Year 5
Advanced Pilot Training and NVG Operations	$400.00	$420.00	$441.00	$463.05	$486.20
Aviation Safety and Risk Management Solutions	$800.00	$840.00	$882.00	$926.10	$972.41
Operational Standardization and Efficiency Enhancement	$960.00	$1,008.00	$1,058.40	$1,111.32	$1,166.89
Emergency Response, SAR, and Workforce Development Programs	$2,000.00	$2,100.00	$2,205.00	$2,315.25	$2,431.01
Direct Cost of Sales					
Advanced Pilot Training and NVG Operations	$6,000	$12,600	$17,861	$23,442	$29,537
Aviation Safety and Risk Management Solutions	$11,200	$23,520	$33,340	$43,758	$55,135
Operational Standardization and Efficiency Enhancement	$9,600	$20,160	$28,577	$37,507	$47,259
Emergency Response, SAR, and Workforce Development Programs	$14,000	$29,400	$41,675	$54,698	$68,919
Subtotal Direct Cost of Sales	**$40,800**	**$85,680**	**$121,451**	**$159,405**	**$200,850**



6.0 Management Structure

As previously mentioned, Mr. Luiz Henrique Garcez Lotufo will be the General Manager & Aviation Training & Operations Director of Vanguard Aviation Training. The Personnel Plan shows that the company expects to make gradual investments in personnel in the first years of operation, and by the year 5, the company will have 16 employees, including Mr. Luiz Henrique Garcez Lotufo.

6.1 Staffing Requirements

Vanguard Aviation Training has developed a structured personnel plan designed to support its operations and expansion within the aviation training and operational support sector. This staffing strategy outlines the company's projected workforce structure, headcount growth, and compensation framework over a five-year period, ensuring alignment with increasing service demand, operational capacity, and sustainable growth.

In Year 1, the company will begin operations with a team of five professionals, led by Mr. Luiz Henrique Garcez Lotufo as General Manager & Aviation Training & Operations Director, with a base salary of $100,000. During this initial phase, hiring will occur gradually as demand develops, and some salaries reflect partial-year employment for positions introduced throughout the year.

From Year 2 onward, the company will expand its workforce in a structured manner, reaching 16 employees by Year 5, supporting increased training capacity, operational support, and business development activities.

Key roles and their progression include:

• **General Manager & Aviation Training & Operations Director – Mr. Luiz Henrique Garcez Lotufo:** Responsible for strategic leadership, operational oversight, and program development. Compensation is projected to grow from $100,000 in Year 1 to $174,901 by Year 5, reflecting expanded executive responsibilities.

• **Flight Instructors (Helicopter):** The company will begin with one instructor in Year 1 and expand to two instructors by Year 3, supporting increasing demand for pilot training programs. Total compensation grows accordingly, reaching $204,205 by Year 5.

• **NVG Training Specialists:** Introduced in Year 2, this role supports specialized night operations training. The team expands to two professionals by Year 4, reflecting growing demand for NVG capabilities, with total compensation reaching $218,791 by Year 5.

• **Aviation Safety Specialists:** Also introduced in Year 2, these professionals support safety programs, risk mitigation, and operational compliance. The team grows to two professionals by Year 5, with total compensation reaching $175,033.

• **Operational Support Specialists:** Introduced in Year 3 to support logistics, training execution, and operational coordination. The team expands to two professionals by Year 5, with total compensation reaching $145,861.

• **Training Coordinators:** Supporting program scheduling and training logistics, this role begins in Year 1 and expands to two professionals by Year 4. Compensation grows to $131,275 by Year 5.

• **Instructional Design Specialist:** Introduced in Year 2, responsible for developing structured training programs and materials. This role remains at one professional through Year 5, with compensation reaching $80,223.

• **Business Development Managers:** Responsible for client acquisition and strategic partnerships, starting with one professional in Year 1 and expanding to two by Year 4. Total compensation reaches $175,033 by Year 5.

• **Administrative Manager:** Supports internal operations, financial coordination, and organizational management. This role is present from Year 1 and grows steadily, reaching $64,179 by Year 5.

• **Client Relations / Customer Success:** Introduced in Year 3 to support client engagement and retention, remaining at one professional through Year 5, with compensation reaching $58,344.

Overall, total payroll is projected to grow from **$282,800 in Year 1 to $1,427,844 in Year 5**, reflecting the company's phased hiring strategy and expansion of operational capacity.

6.2 Annual Personnel Plan Table

Personnel Plan					
	Year 1	Year 2	Year 3	Year 4	Year 5
General Manager & Aviation Training & Operations Director - Mr. Luiz Henrique Garcez Lotufo	$100,000	$115,000	$132,250	$152,087	$174,901
Flight Instructor (Helicopter)	$84,000	$88,200	$185,220	$194,481	$204,205
NVG Training Specialist	$0	$94,500	$99,225	$208,373	$218,791
Aviation Safety Specialist	$0	$75,600	$79,380	$83,349	$175,033
Operational Support Specialist	$0	$0	$66,150	$69,458	$145,861
Training Coordinator	$18,000	$56,700	$59,535	$125,024	$131,275
Instructional Design Specialist	$0	$69,300	$72,765	$76,403	$80,223
Business Development Manager	$72,000	$75,600	$79,380	$166,698	$175,033
Administrative Manager	$8,800	$55,440	$58,212	$61,123	$64,179
Client Relations / Customer Success	$0	$0	$52,920	$55,566	$58,344
Total People	5	8	11	14	16
Total Payroll	**$282,800**	**$630,340**	**$885,037**	**$1,192,561**	**$1,427,844**

6.3 Five-Year Personnel Plan Table

Personnel Plan					
	Year 1	Year 2	Year 3	Year 4	Year 5
General Manager & Aviation Training & Operations Director - Mr. Luiz Henrique Garcez Lotufo	1	1	1	1	1
Flight Instructor (Helicopter)	1	1	2	2	2
NVG Training Specialist	0	1	1	2	2
Aviation Safety Specialist	0	1	1	1	2
Operational Support Specialist	0	0	1	1	2
Training Coordinator	1	1	1	2	2
Instructional Design Specialist	0	1	1	1	1
Business Development Manager	1	1	1	2	2
Administrative Manager	1	1	1	1	1
Client Relations / Customer Success	0	0	1	1	1
Total People	**5**	**8**	**11**	**14**	**16**

6.4 Organizational Chart – Year 5



6.5 Duties and Responsibilities

General Manager & Aviation Training & Operations Director – Mr. Luiz Henrique Garcez Lotufo

- Define the company's strategic direction, service portfolio, and long-term growth initiatives within the aviation training sector
- Oversee all business operations, ensuring alignment between training programs, safety standards, and organizational objectives
- Lead the development and implementation of advanced aviation training programs, including NVG and mission-critical operations
- Establish and maintain partnerships with aviation operators, government-related entities, and training organizations
- Supervise managerial staff and ensure effective delegation of operational and technical responsibilities
- Oversee financial performance, budgeting, and resource allocation to support sustainable growth
- Ensure compliance with applicable aviation regulations, safety standards, and industry best practices
- Drive business development strategies, market positioning, and expansion of the company's client base

Flight Instructor (Helicopter)

- Deliver practical and theoretical helicopter flight training in accordance with established aviation standards
- Conduct flight instruction sessions focused on operational proficiency and safety
- Evaluate pilot performance and provide structured feedback for improvement
- Support the development and refinement of training programs and instructional materials

NVG Training Specialist

- Deliver specialized training in Night Vision Goggle (NVG) operations for helicopter pilots
- Provide instruction on night flight procedures, risk mitigation, and situational awareness
- Support the integration of NVG protocols into training programs
- Evaluate pilot readiness and ensure compliance with NVG operational standards

Aviation Safety Specialist

- Develop and implement safety programs and risk management frameworks

- Conduct safety assessments and identify operational risks
- Support compliance with aviation regulations and safety standards
- Promote a safety-oriented culture across all training and operational activities

Operational Support Specialist

- Assist in the coordination and execution of training operations
- Support logistics, scheduling, and resource allocation for training activities
- Monitor operational workflows to ensure efficiency and consistency
- Provide administrative and operational support to instructors and management

Training Coordinator

- Organize training schedules, programs, and participant logistics
- Coordinate communication between instructors, clients, and trainees
- Track training progress and maintain program documentation
- Support the execution and continuous improvement of training programs

Instructional Design Specialist

- Develop structured training curricula and educational materials
- Design learning methodologies aligned with aviation best practices
- Integrate technical content into effective training formats
- Continuously update training content based on industry developments

Business Development Manager

- Identify and develop new business opportunities within the aviation sector
- Build and maintain relationships with clients, partners, and stakeholders
- Support contract negotiations and service proposals
- Contribute to revenue growth through strategic market engagement

Administrative Manager

- Oversee administrative operations and internal processes
- Manage financial coordination, documentation, and reporting
- Support HR functions, including hiring coordination and onboarding
- Ensure organizational efficiency and compliance with internal procedures

Client Relations / Customer Success

- Manage client relationships and ensure high levels of customer satisfaction
- Act as the primary point of contact for client communication and support
- Monitor service delivery and address client needs or concerns
- Support client retention and long-term engagement strategies

7.0 Financial Summary

The financial plan for Vanguard Aviation Training is a critical analysis of the company's financial projections, including revenue, expenses, and overall financial performance. It offers a comprehensive overview of the expected financial trajectory over a specific period of time and determines the company's financial feasibility. The plan encompasses essential aspects such as startup funding, profit and loss, cash flow, and balance sheet. The financial plan plays a crucial role in determining the company's success and helps in making informed decisions to ensure that the company achieves its financial objectives.

7.1 Break-even Analysis

The Break-even Analysis is a key financial indicator for Vanguard Aviation Training, identifying the point at which the company's revenues cover its total operating costs.

Based on the company's financial projections, Vanguard Aviation Training is expected to reach its break-even point at approximately 3 monthly service units, corresponding to an estimated monthly revenue of $34,667.

This calculation is based on the following assumptions:

1. **Average Revenue Per Unit:** Approximately $11,086.96, reflecting a blended average across all service lines
2. **Average Variable Cost Per Unit:** Approximately $886.96, consistent with the company's low variable cost structure
3. **Monthly Fixed Costs:** Estimated at $31,893, including payroll, rent, marketing, and administrative expenses

Understanding the break-even point provides a clear benchmark for operational planning and financial management. Given the company's projected sales volume, this threshold is expected to be achieved early in its operations, supporting a rapid transition to profitability.

7.1.1 Break-even Analysis Table

Break-even Analysis	
Monthly Units Break-even	3
Monthly Revenue Break-even	$34,667
Assumptions:	
Average Per-Unit Revenue	$11,086.96
Average Per-Unit Variable Cost	$886.96
Estimated Monthly Fixed Cost	**$31,893**

7.2 Profit and Loss Assumptions

Vanguard Aviation Training's financial projections reflect a scalable, service-based business model focused on aviation training, safety solutions, and operational support services.

The company is expected to generate $510,000 in revenue in Year 1, growing steadily to approximately $2,510,628 by Year 5, driven by increasing demand for specialized aviation training and workforce development programs.

Direct costs remain relatively low due to the company's expertise-driven model, increasing from $40,800 in Year 1 to $200,850 in Year 5, while maintaining a strong and consistent gross margin of 92% throughout the projection period.

Operating expenses are projected to grow in line with business expansion, particularly driven by workforce growth and operational scaling. Total operating expenses increase from approximately $382,720 in Year 1 to $1,736,752 in Year 5.

A key operational component includes aircraft and training equipment leasing, which supports practical training activities and real-world instruction environments, representing a critical investment in service delivery quality.

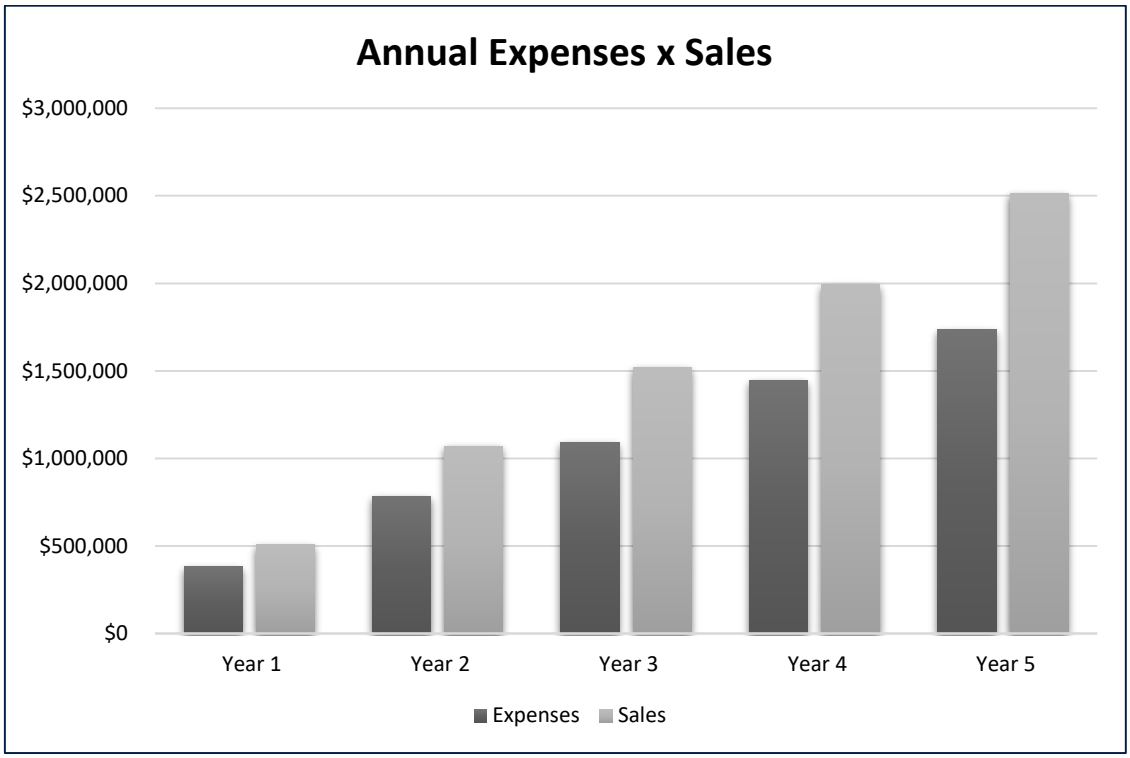
The company's profitability demonstrates a strong upward trajectory. Net profit is projected to grow from $63,130 in Year 1 to $418,309 by Year 5, with net profit margins improving from 12.38% to 16.66%, reflecting increasing efficiency and operational maturity.

Overall, the financial projections demonstrate a solid and sustainable growth model, supported by increasing demand, high-margin services, and controlled operational costs.

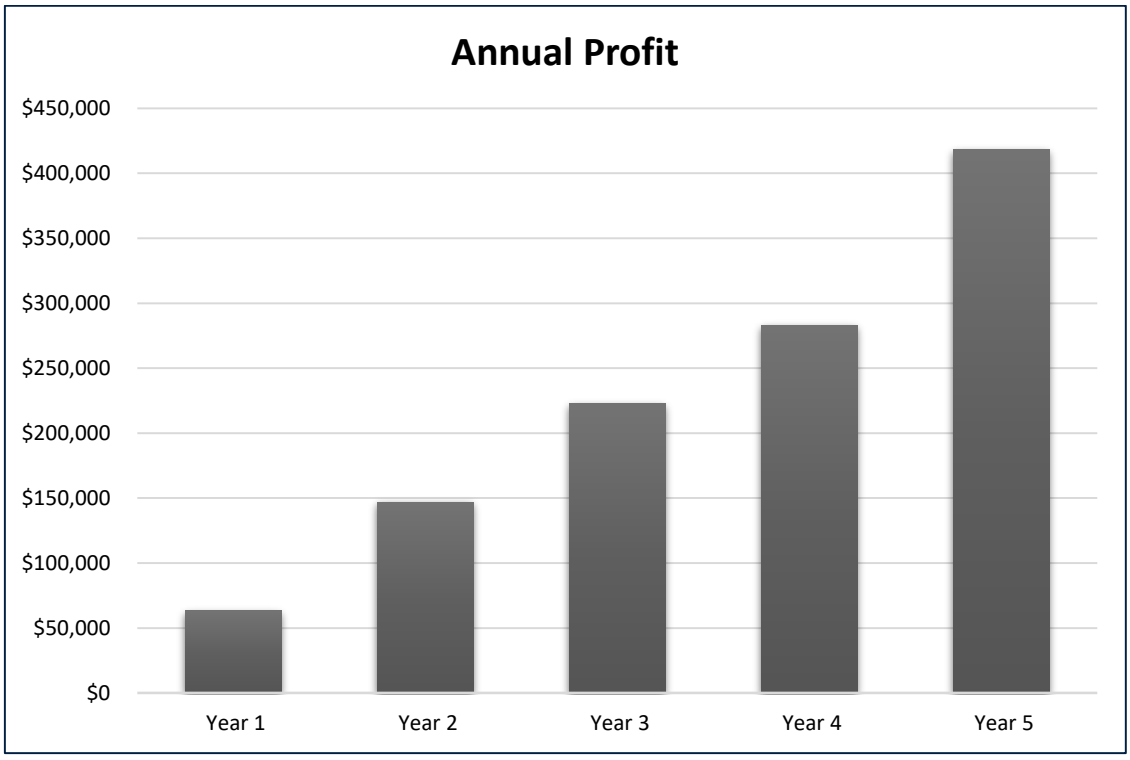
7.2.1 Annual Profit and Loss Table and Charts

Pro Forma Profit and Loss					
	Year 1	Year 2	Year 3	Year 4	Year 5
Sales	$510,000	$1,071,000	$1,518,143	$1,992,562	$2,510,628
Direct Cost of Sales	$40,800	$85,680	$121,451	$159,405	$200,850
Other Costs of Sales	$0	$0	$0	$0	$0
Total Cost of Sales	$40,800	$85,680	$121,451	$159,405	$200,850
Gross Margin	$469,200	$985,320	$1,396,691	$1,833,157	$2,309,778
Gross Margin %	92.00%	92.00%	92.00%	92.00%	92.00%
Expenses					
Payroll	$282,800	$630,340	$885,037	$1,192,561	$1,427,844
Payroll Taxes	$28,280	$63,034	$88,504	$119,256	$142,784
Depreciation	$0	$3,000	$4,500	$6,000	$7,500
Rent	$30,000	$36,000	$43,200	$51,840	$62,208
Insurance	$2,400	$2,880	$3,456	$4,147	$4,977
Marketing/Promotion	$6,000	$7,200	$8,640	$10,368	$12,442
Utilities/Internet/Phone	$1,800	$2,160	$2,592	$3,110	$3,732
Employees Education	$0	$8,000	$9,600	$11,520	$13,824
Aircraft and Training Equipment Leasing	$30,000	$30,000	$45,000	$45,000	$60,000
Accountant	$1,440	$1,440	$1,440	$1,440	$1,440
Total Operating Expenses	$382,720	$784,054	$1,091,969	$1,445,243	$1,736,752
Profit Before Interest and Taxes	$86,480	$201,266	$304,722	$387,915	$573,026
EBITDA	$86,480	$204,266	$309,222	$393,915	$580,526
Taxes Incurred	$23,350	$54,342	$82,275	$104,737	$154,717
Net Profit	$63,130	$146,924	$222,447	$283,178	$418,309
Net Profit/Sales	**12.38%**	**13.72%**	**14.65%**	**14.21%**	**16.66%**

7.2.2 Annual Expenses x Sales Chart



7.2.3 Annual Profit Chart



7.3 Cash Flow Assumptions

Vanguard Aviation Training's Pro Forma Cash Flow demonstrates a strong and sustainable financial trajectory over the five-year projection period, driven by consistent revenue growth and controlled operational expenditures.

Cash inflows are generated entirely from operations, with total cash received increasing from $510,000 in Year 1 to $2,510,628 in Year 5, reflecting the company's expanding client base and service capacity. The company does not rely on external financing or non-operational income, reinforcing its financial independence and stability.

Operational expenditures consist primarily of payroll and bill payments, both of which increase in line with business expansion. Cash spending (primarily payroll) grows from $282,800 in Year 1 to $1,427,844 in Year 5, while bill payments increase from $142,821 to $644,962 over the same period. As a result, total operational spending rises from $425,621 in Year 1 to $2,072,807 in Year 5.

Additional expenditures include dividend distributions, which begin in Year 2 and increase gradually to $75,000 by Year 5, reflecting the company's profitability and financial maturity.

Despite increasing expenses, net cash flow remains positive throughout the entire period, growing from $84,379 in Year 1 to $362,822 in Year 5. This consistent positive cash flow supports operational sustainability and ongoing business expansion.

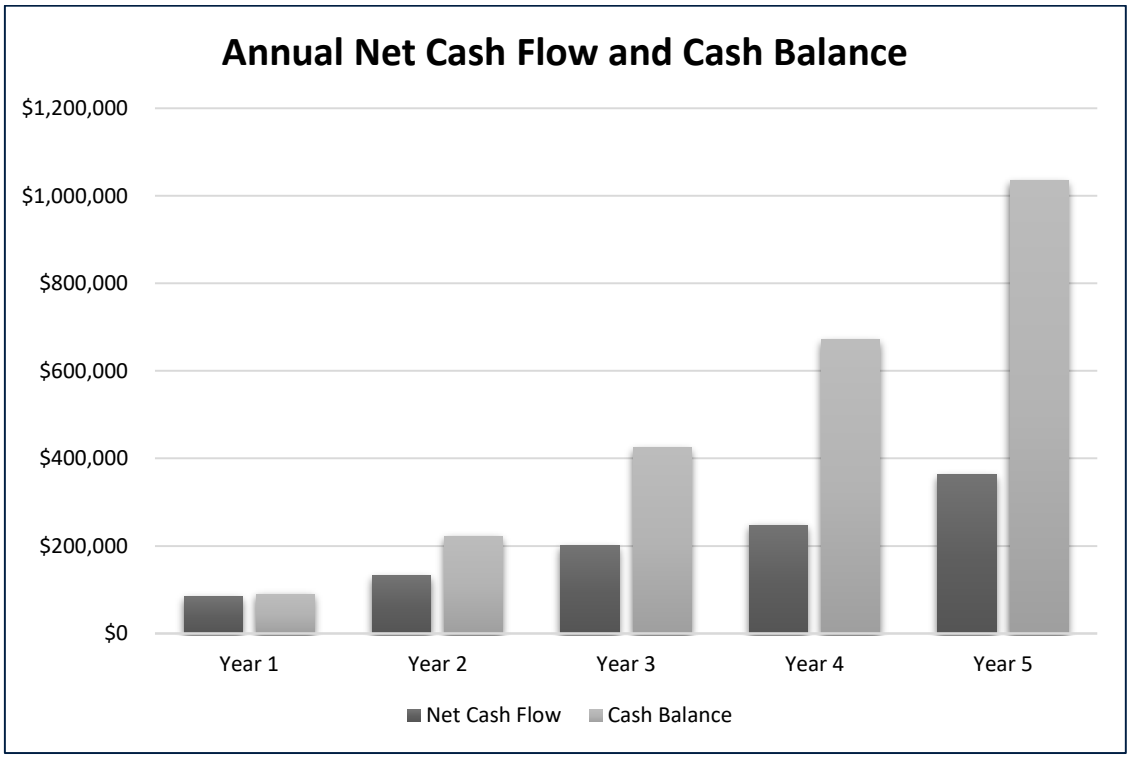
The company's cash balance reflects this upward trend, increasing from $89,879 in Year 1 to $1,034,487 by Year 5, demonstrating strong liquidity and effective financial management.

7.3.1 Annual Cash Flow Table and Chart

Pro Forma Cash Flow					
	Year 1	Year 2	Year 3	Year 4	Year 5
Cash Received					
Cash from Operations					
Cash Sales	$255,000	$535,500	$759,071	$996,281	$1,255,314
Cash from Receivables	$255,000	$535,500	$759,071	$996,281	$1,255,314
Subtotal Cash from Operations	$510,000	$1,071,000	$1,518,143	$1,992,562	$2,510,628
Additional Cash Received					
Non Operating (Other) Income	$0	$0	$0	$0	$0
Sales Tax, VAT, HST/GST Received	$0	$0	$0	$0	$0
New Current Borrowing	$0	$0	$0	$0	$0
New Other Liabilities (interest-free)	$0	$0	$0	$0	$0
New Long-term Liabilities	$0	$0	$0	$0	$0
Sales of Other Current Assets	$0	$0	$0	$0	$0
Sales of Long-term Assets	$0	$0	$0	$0	$0
New Investment Received	$0	$0	$0	$0	$0

Subtotal Cash Received	$510,000	$1,071,000	$1,518,143	$1,992,562	$2,510,628
Expenditures	Year 1	Year 2	Year 3	Year 4	Year 5
Expenditures from Operations					
Cash Spending	$282,800	$630,340	$885,037	$1,192,561	$1,427,844
Bill Payments	$142,821	$288,088	$396,671	$502,221	$644,962
Subtotal Spent on Operations	$425,621	$918,428	$1,281,708	$1,694,782	$2,072,807
Additional Cash Spent					
Non Operating (Other) Expense	$0	$0	$0	$0	$0
Sales Tax, VAT, HST/GST Paid Out	$0	$0	$0	$0	$0
Principal Repayment of Current Borrowing	$0	$0	$0	$0	$0
Other Liabilities Principal Repayment	$0	$0	$0	$0	$0
Long-term Liabilities Principal Repayment	$0	$0	$0	$0	$0
Purchase Other Current Assets	$0	$0	$0	$0	$0
Purchase Long-term Assets	$0	$0	$0	$0	$0
Dividends	$0	$20,000	$35,000	$50,000	$75,000
Subtotal Cash Spent	$425,621	$938,428	$1,316,708	$1,744,782	$2,147,807
Net Cash Flow	$84,379	$132,572	$201,434	$247,780	$362,822
Cash Balance	**$89,879**	**$222,451**	**$423,885**	**$671,665**	**$1,034,487**

7.3.2 Annual Net Cash Flow and Cash Balance Chart



7.4 Balance Sheet Assumptions

Vanguard Aviation Training's Pro Forma Balance Sheet reflects a solid financial structure characterized by asset growth, minimal liabilities, and increasing net worth over time.

The company's assets are primarily composed of cash, which increases steadily from $89,879 in Year 1 to $1,034,487 in Year 5, reflecting strong cash flow generation and disciplined financial management. The company does not maintain accounts receivable or inventory, reinforcing a streamlined, service-based business model.

Long-term assets remain minimal, with only accumulated depreciation recorded, reaching $21,000 by Year 5. As a result, total assets grow consistently from $89,879 in Year 1 to $1,013,487 in Year 5.

On the liabilities side, the company maintains a conservative structure with no long-term debt. Current liabilities consist primarily of accounts payable, increasing moderately from $21,249 in Year 1 to $53,998 in Year 5, reflecting operational growth.

Paid-in capital remains stable at $30,000, while retained earnings increase significantly over time, transitioning from a negative position in Year 1 to $496,180 by Year 5. This reflects the company's ability to retain profits and strengthen its financial position.

Earnings grow consistently from $63,130 in Year 1 to $418,309 in Year 5, contributing to total capital growth from $68,630 to $959,489 over the five-year period.

Overall, Vanguard Aviation Training demonstrates a strong financial foundation, with increasing assets, limited liabilities, and a steadily growing net worth, supporting long-term sustainability and expansion.

7.4.1 Annual Balance Sheet Table

Pro Forma Balance Sheet					
	Year 1	Year 2	Year 3	Year 4	Year 5
Assets					
Current Assets					
Cash	$89,879	$222,451	$423,885	$671,665	$1,034,487
Accounts Receivable	$0	$0	$0	$0	$0
Inventory	$0	$0	$0	$0	$0
Other Current Assets	$0	$0	$0	$0	$0
Total Current Assets	$89,879	$222,451	$423,885	$671,665	$1,034,487
Long-term Assets					
Long-term Assets	$0	$0	$0	$0	$0
Accumulated Depreciation	$0	$3,000	$7,500	$13,500	$21,000
Total Long-term Assets	$0	($3,000)	($7,500)	($13,500)	($21,000)
Total Assets	$89,879	$219,451	$416,385	$658,165	$1,013,487
Liabilities and Capital	Year 1	Year 2	Year 3	Year 4	Year 5

Current Liabilities					
Accounts Payable	$21,249	$23,896	$33,383	$41,985	$53,998
Current Borrowing	$0	$0	$0	$0	$0
Other Current Liabilities	$0	$0	$0	$0	$0
Subtotal Current Liabilities	$21,249	$23,896	$33,383	$41,985	$53,998
Long-term Liabilities	$0	$0	$0	$0	$0
Total Liabilities	$21,249	$23,896	$33,383	$41,985	$53,998
Paid-in Capital	$30,000	$30,000	$30,000	$30,000	$30,000
Retained Earnings	($39,500)	$3,630	$115,555	$288,002	$496,180
Earnings	$63,130	$146,924	$222,447	$283,178	$418,309
Total Capital	$68,630	$195,555	$383,002	$616,180	$959,489
Total Liabilities and Capital	$89,879	$219,451	$416,385	$658,165	$1,013,487
Net Worth	**$68,630**	**$195,555**	**$383,002**	**$616,180**	**$959,489**

8.0 Mr. Luiz Henrique Garcez Lotufo's National-level Impact

Addressing the U.S. Aviation Workforce Shortage

The United States aviation industry is currently facing a significant workforce shortage that directly impacts operational capacity and industry sustainability. Projections indicate that North America will require approximately **119,000 new pilots between 2025 and 2044**, while thousands of experienced professionals are expected to retire in the coming years.[18]

This shortage extends beyond pilots to include aviation technicians, safety personnel, and operational specialists, creating systemic gaps across the aviation ecosystem. These constraints increase operational pressure, reduce efficiency, and heighten safety risks.

Through Vanguard Aviation Training, Mr. Lotufo will contribute to addressing this shortage by delivering specialized training programs that accelerate workforce readiness, enhance technical capabilities, and support the development of highly skilled aviation professionals.

Enhancing Aviation Safety and Risk Mitigation

Aviation safety remains a national priority in the United States, particularly in complex and high-risk operations such as emergency response, night operations, and mission-critical aviation activities.

Mr. Lotufo's initiative directly contributes to improving safety standards through:

- Advanced pilot training programs
- Specialized Night Vision Goggle (NVG) training

[18] https://acronaviationacademy.com/usa/blog/analyzing-pilot-shortage-by-the-numbers/

- Structured safety frameworks and risk mitigation strategies
- Operational performance improvement methodologies

By strengthening pilot proficiency, decision-making, and situational awareness, the company supports safer aviation operations and reduces the likelihood of incidents, contributing to the overall reliability of the U.S. aviation system.

Supporting Veteran Transition and Workforce Reintegration

A key component of the proposed endeavor is the integration of military veterans into civilian aviation careers. The U.S. government has consistently emphasized the importance of facilitating workforce reintegration for veterans, particularly in sectors aligned with their technical expertise.[19]

Vanguard Aviation Training will support this objective by providing structured training pathways that allow veterans, especially those with aviation backgrounds to transition into civilian roles in helicopter operations and specialized aviation services.

This initiative not only helps reduce workforce shortages but also leverages the discipline, technical skills, and operational experience of military personnel, creating a highly qualified workforce pipeline.

Strengthening Emergency Response and Critical Operations

Aviation plays a critical role in emergency response, including:

- Search and rescue (SAR) operations
- Disaster response and recovery
- Medical evacuation and emergency transport
- Infrastructure and public safety support

Mr. Lotufo's training programs will enhance the preparedness and effectiveness of aviation professionals involved in these operations. By improving technical performance and operational coordination, the company contributes directly to public safety and national resilience.

Economic and Infrastructure Impact

The proposed endeavor also contributes to broader economic and infrastructure objectives. A more skilled aviation workforce supports:

- Increased operational efficiency
- Reduced risk and operational disruptions
- Improved service delivery across aviation-dependent sectors

[19] https://www.opm.gov/fedshirevets/hiring-officials/reintegration-framework/

- Greater reliability of critical transportation and emergency systems

As the aviation industry is a key component of the U.S. economy, improvements in workforce capability and operational performance generate ripple effects across multiple sectors.

Alignment with U.S. National Priorities

Mr. Lotufo's endeavor aligns with several key national priorities, including:

- Workforce development in high-demand technical sectors
- Enhancement of transportation safety and reliability
- Support for veteran employment and reintegration programs
- Strengthening of critical infrastructure and emergency response systems

These priorities are consistently reflected in federal initiatives related to aviation safety, workforce expansion, and infrastructure modernization.

In summary, Mr. Luiz Henrique Garcez Lotufo's proposed endeavor demonstrates clear national importance by addressing critical challenges within the U.S. aviation sector. Through workforce development, safety enhancement, veteran integration, and support for emergency operations, Vanguard Aviation Training contributes to strengthening a vital component of the nation's infrastructure.

The combination of technical impact, economic contribution, and alignment with federal priorities reinforces the substantial merit and national relevance of the proposed endeavor

9.0 Indirect jobs creation - Economic Policy Institute

Each industry has backward linkages to economic sectors that provide the materials needed for the industry's output, just as each industry has forward linkages to the economic sectors where the industry's workers spend their income. Therefore, in addition to the jobs directly supported by an industry, a large number of indirect jobs may also be supported by that industry. The subtraction or addition of jobs and output in industries with strong backward and forward linkages to other economic sectors can cause large ripple effects.

According to the national job multipliers published by the Economy Policy Institute (EPI) on January 23, 2019,[20] 100 direct jobs in the Other Professional, Scientific, and Technical Services industry generate a total of 154.3 total indirect jobs, as demonstrated in the following table:

[20] https://www.epi.org/publication/updated-employment-multipliers-for-the-u-s-economy/

Employment multipliers per 100 direct jobs, all private-sector industries

	Industry	Direct jobs	Supplier jobs*	Induced jobs**	Total indirect jobs
129	Computer systems design and related services	100.0	134.1	149.3	283.4
130	Management, scientific, and technical consulting services	100.0	91.1	116.5	207.6
131	Scientific research and development services	100.0	519.3	323.7	842.9
132	Advertising, public relations, and related services	100.0	460.9	270.7	731.6
133	Other professional, scientific, and technical services	100.0	70.8	83.6	154.3

Since Mr. Lotufo will create 16 direct jobs by the end of Year 5, the total number of indirect jobs to be generated in the same period will reach 24 according to the multipliers provided by the EPI. In addition to its in-house team, Vanguard Aviation Training will hire a number of independent contractors on a project basis, including legal professionals and technicians. Additionally, the company will mediate in the hiring of professionals that will perform services that are deemed to be required. Therefore, the company will stimulate the employment of a number of workers of different profiles. Furthermore, the company will hire an outsourced marketing company to develop its website and work with marketing campaigns.

The direct and indirect job creation by Vanguard Aviation Training, as well as the utilization of independent contractors and outsourced services, will have a significant positive impact on the local and national economy, fostering job growth, generating income, and contributing to overall economic prosperity.

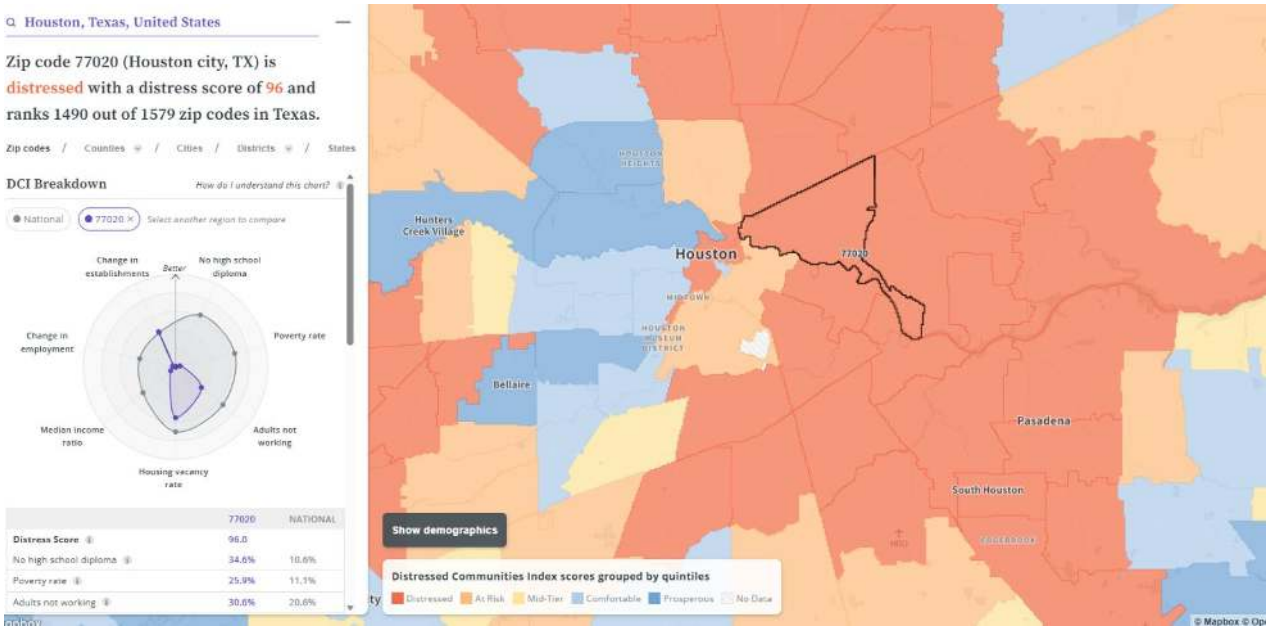
Vanguard Aviation Training' expansion plans, under the leadership of Mr. Luiz Henrique Garcez Lotufo, encompass the creation of direct and indirect employment opportunities, the payment of substantial taxes, and the utilization of local resources and services. By contributing to job creation, tax revenue, and economic growth, Vanguard Aviation Training aims to make a lasting and positive impact on both the local community and the broader U.S. economy.

9.1 Distressed Communities

This section examines the socioeconomic conditions of economically distressed communities, focusing on ZIP Code 77020 in Houston, Texas, an area identified as facing significant economic

and social challenges. Understanding these conditions is essential for businesses seeking to contribute to workforce development, economic revitalization, and long-term community impact.

ZIP Code 77020 is classified as a highly distressed community, with a Distressed Communities Index (DCI) score of 96.0, ranking 1490 out of 1579 zip codes in Texas. This classification reflects substantial economic challenges when compared to both state and national benchmarks.[21]



Demographic and Socioeconomic Profile

- **Economic Distress:** The region exhibits severe economic distress, with a DCI score of 96. Key contributing factors include high poverty levels, low income ratios, and negative employment trends.
- **Income and Poverty Levels:** The poverty rate in the area is approximately 25.9%, more than double the national average of 11.1%. Additionally, the median income is only **61.5% of the national average**, indicating reduced economic mobility and lower household earnings.
- **Employment Conditions:** Approximately 30.6% of adults are not currently working, significantly higher than the national average of 20.6%. Furthermore, the area has experienced a −24.1% decline in employment, highlighting ongoing economic instability and limited job opportunities.

[21] https://eig.org/distressed-communities-interactive/?regions%5B0%5D=77020&geo=zctas&lat=29.77&lon=-95.29&z=10.97

- **Education Levels:** Educational attainment remains a major challenge, with 34.6% of residents lacking a high school diploma, compared to 10.6% nationally. This gap indicates a strong need for technical training, workforce development, and skill-building initiatives.
- **Housing and Infrastructure:** The housing vacancy rate stands at 9.8%, above the national average of 7.0%, suggesting underutilized infrastructure and economic stagnation in certain areas.
- **Demographics:** The community is predominantly Hispanic or Latino (69.2%), followed by Black or African-American residents (23.9%), with smaller representations of other groups. Additionally, approximately 23.2% of residents are foreign-born, indicating a diverse population that may benefit from inclusive workforce development programs.

Business Implications

- **Workforce Development Opportunities:** The combination of high unemployment and low educational attainment highlights a strong opportunity for businesses to implement training programs that enhance employability and technical skills.
- **Local Hiring Potential:** The presence of a large underutilized labor force creates favorable conditions for companies to recruit locally, reducing hiring costs while contributing to economic inclusion.
- **Community Impact:** Businesses that invest in training, job creation, and professional development can play a significant role in improving economic mobility and reducing poverty levels within the community.
- **Economic Incentives:** Operating in a distressed area such as ZIP Code 77020 may provide access to government incentives, including tax credits, workforce development programs, and grants aimed at encouraging investment and job creation.
- **Market Relevance:** Services focused on education, training, and workforce integration are particularly relevant in this region, where there is a clear gap between labor supply and skill readiness.

Conclusion

Establishing operations in ZIP Code 77020 presents both challenges and meaningful opportunities. The area's economic conditions highlight the need for workforce development, job creation, and structured training initiatives.

By operating in this environment, Vanguard Aviation Training has the potential to contribute not only to its own growth but also to the economic revitalization of the community. Through targeted training programs, local hiring, and community engagement, the company can help improve employment outcomes, enhance workforce readiness, and support long-term economic development in one of Houston's most distressed areas.

APPENDIX

Monthly Sales Forecast Table

Sales Forecast													
		Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
Unit Sales													
Advanced Pilot Training and NVG Operations		0	2	2	2	1	1	1	1	1	2	1	1
Aviation Safety and Risk Management Solutions		0	1	2	1	1	1	2	1	1	1	1	2
Operational Standardization and Efficiency Enhancement		1	0	0	1	0	1	1	2	1	1	0	2
Emergency Response, SAR, and Workforce Development Programs		0	0	0	0	1	1	1	1	1	1	0	1
Total Unit Sales		1	3	4	4	3	4	5	5	4	5	2	6
Unit Prices		Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
Advanced Pilot Training and NVG Operations		$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00
Aviation Safety and Risk Management Solutions		$10,000.00	$10,000.00	$10,000.00	$10,000.00	$10,000.00	$10,000.00	$10,000.00	$10,000.00	$10,000.00	$10,000.00	$10,000.00	$10,000.00
Operational Standardization and Efficiency Enhancement		$12,000.00	$12,000.00	$12,000.00	$12,000.00	$12,000.00	$12,000.00	$12,000.00	$12,000.00	$12,000.00	$12,000.00	$12,000.00	$12,000.00
Emergency Response, SAR, and Workforce Development Programs		$25,000.00	$25,000.00	$25,000.00	$25,000.00	$25,000.00	$25,000.00	$25,000.00	$25,000.00	$25,000.00	$25,000.00	$25,000.00	$25,000.00
Sales													
Advanced Pilot Training and NVG Operations		$0	$10,000	$10,000	$10,000	$5,000	$5,000	$5,000	$5,000	$5,000	$10,000	$5,000	$5,000
Aviation Safety and Risk Management Solutions		$0	$10,000	$20,000	$10,000	$10,000	$10,000	$20,000	$10,000	$10,000	$10,000	$10,000	$20,000
Operational Standardization and Efficiency Enhancement		$12,000	$0	$0	$12,000	$0	$12,000	$12,000	$24,000	$12,000	$12,000	$0	$24,000
Emergency Response, SAR, and Workforce Development Programs		$0	$0	$0	$0	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000	$0	$25,000
Total Sales		$12,000	$20,000	$30,000	$32,000	$40,000	$52,000	$62,000	$64,000	$52,000	$57,000	$15,000	$74,000
Direct Unit Costs		Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12

Advanced Pilot Training and NVG Operations	8.00%	$400.00	$400.00	$400.00	$400.00	$400.00	$400.00	$400.00	$400.00	$400.00	$400.00	$400.00	$400.00
Aviation Safety and Risk Management Solutions	8.00%	$800.00	$800.00	$800.00	$800.00	$800.00	$800.00	$800.00	$800.00	$800.00	$800.00	$800.00	$800.00
Operational Standardization and Efficiency Enhancement	8.00%	$960.00	$960.00	$960.00	$960.00	$960.00	$960.00	$960.00	$960.00	$960.00	$960.00	$960.00	$960.00
Emergency Response, SAR, and Workforce Development Programs	8.00%	$2,000.00	$2,000.00	$2,000.00	$2,000.00	$2,000.00	$2,000.00	$2,000.00	$2,000.00	$2,000.00	$2,000.00	$2,000.00	$2,000.00
Direct Cost of Sales													
Advanced Pilot Training and NVG Operations		$0	$800	$800	$800	$400	$400	$400	$400	$400	$800	$400	$400
Aviation Safety and Risk Management Solutions		$0	$800	$1,600	$800	$800	$800	$1,600	$800	$800	$800	$800	$1,600
Operational Standardization and Efficiency Enhancement		$960	$0	$0	$960	$0	$960	$960	$1,920	$960	$960	$0	$1,920
Emergency Response, SAR, and Workforce Development Programs		$0	$0	$0	$0	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$0	$2,000
Subtotal Direct Cost of Sales		**$960**	**$1,600**	**$2,400**	**$2,560**	**$3,200**	**$4,160**	**$4,960**	**$5,120**	**$4,160**	**$4,560**	**$1,200**	**$5,920**

Monthly Personnel Plan Table

Personnel Plan													
		Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
General Manager & Aviation Training & Operations Director - Mr. Luiz Henrique Garcez Lotufo		$0	$6,000	$6,000	$6,000	$8,000	$8,000	$10,000	$10,000	$10,000	$12,000	$12,000	$12,000
Flight Instructor (Helicopter)		$7,000	$7,000	$7,000	$7,000	$7,000	$7,000	$7,000	$7,000	$7,000	$7,000	$7,000	$7,000
NVG Training Specialist		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Aviation Safety Specialist		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Operational Support Specialist		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Training Coordinator		$0	$0	$0	$0	$0	$0	$0	$0	$4,500	$4,500	$4,500	$4,500
Instructional Design Specialist		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Business Development Manager		$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000
Administrative Manager		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$4,400	$4,400
Client Relations / Customer Success		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total People		2	3	3	3	3	3	3	3	4	4	5	5
Total Payroll		**$13,000**	**$19,000**	**$19,000**	**$19,000**	**$21,000**	**$21,000**	**$23,000**	**$23,000**	**$27,500**	**$29,500**	**$33,900**	**$33,900**

Monthly Profit and Loss Table

Pro Forma Profit and Loss													
		Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
Sales		$12,000	$20,000	$30,000	$32,000	$40,000	$52,000	$62,000	$64,000	$52,000	$57,000	$15,000	$74,000
Direct Cost of Sales		$960	$1,600	$2,400	$2,560	$3,200	$4,160	$4,960	$5,120	$4,160	$4,560	$1,200	$5,920
Other Costs of Sales		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Cost of Sales		$960	$1,600	$2,400	$2,560	$3,200	$4,160	$4,960	$5,120	$4,160	$4,560	$1,200	$5,920
Gross Margin		$11,040	$18,400	$27,600	$29,440	$36,800	$47,840	$57,040	$58,880	$47,840	$52,440	$13,800	$68,080
Gross Margin %		92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%
Expenses													
Payroll		$13,000	$19,000	$19,000	$19,000	$21,000	$21,000	$23,000	$23,000	$27,500	$29,500	$33,900	$33,900
Payroll Taxes	10%	$1,300	$1,900	$1,900	$1,900	$2,100	$2,100	$2,300	$2,300	$2,750	$2,950	$3,390	$3,390
Depreciation		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Rent		$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500
Insurance		$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200
Marketing/Promotion		$500	$500	$500	$500	$500	$500	$500	$500	$500	$500	$500	$500
Utilities/Internet/Phone		$150	$150	$150	$150	$150	$150	$150	$150	$150	$150	$150	$150
Employees Education	0%	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Aircraft and Training Equipment Leasing	0%	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500
Accountant	0%	$120	$120	$120	$120	$120	$120	$120	$120	$120	$120	$120	$120
Total Operating Expenses		$20,270	$26,870	$26,870	$26,870	$29,070	$29,070	$31,270	$31,270	$36,220	$38,420	$43,260	$43,260
Profit Before Interest and Taxes		($9,230)	($8,470)	$730	$2,570	$7,730	$18,770	$25,770	$27,610	$11,620	$14,020	($29,460)	$24,820
EBITDA		($9,230)	($8,470)	$730	$2,570	$7,730	$18,770	$25,770	$27,610	$11,620	$14,020	($29,460)	$24,820
Interest Expense		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Taxes Incurred		($2,492)	($2,287)	$197	$694	$2,087	$5,068	$6,958	$7,455	$3,137	$3,785	($7,954)	$6,701
Net Other Income		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Net Profit		($6,738)	($6,183)	$533	$1,876	$5,643	$13,702	$18,812	$20,155	$8,483	$10,235	($21,506)	$18,119
Net Profit/Sales		**-56.15%**	**-30.92%**	**1.78%**	**5.86%**	**14.11%**	**26.35%**	**30.34%**	**31.49%**	**16.31%**	**17.96%**	**-143.37%**	**24.48%**

Monthly Cash Flow Table

Pro Forma Cash Flow													
		Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
Cash Received													
Cash from Operations													
Cash Sales		$6,000	$10,000	$15,000	$16,000	$20,000	$26,000	$31,000	$32,000	$26,000	$28,500	$7,500	$37,000
Cash from Receivables		$6,000	$10,000	$15,000	$16,000	$20,000	$26,000	$31,000	$32,000	$26,000	$28,500	$7,500	$37,000
Subtotal Cash from Operations		$12,000	$20,000	$30,000	$32,000	$40,000	$52,000	$62,000	$64,000	$52,000	$57,000	$15,000	$74,000
Additional Cash Received													
Non Operating (Other) Income		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Sales Tax, VAT, HST/GST Received	0.00%	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
New Current Borrowing		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
New Other Liabilities (interest-free)		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
New Long-term Liabilities		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Sales of Other Current Assets		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Sales of Long-term Assets		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
New Investment Received		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Cash Received		$12,000	$20,000	$30,000	$32,000	$40,000	$52,000	$62,000	$64,000	$52,000	$57,000	$15,000	$74,000
Expenditures		Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
Expenditures from Operations													
Cash Spending		$13,000	$19,000	$19,000	$19,000	$21,000	$21,000	$23,000	$23,000	$27,500	$29,500	$33,900	$33,900
Bill Payments		$191	$5,786	$7,293	$10,489	$11,198	$13,488	$17,394	$20,210	$20,684	$16,059	$16,777	$3,252
Subtotal Spent on Operations		$13,191	$24,786	$26,293	$29,489	$32,198	$34,488	$40,394	$43,210	$48,184	$45,559	$50,677	$37,152
Additional Cash Spent													
Non Operating (Other) Expense		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Sales Tax, VAT, HST/GST Paid Out		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Principal Repayment of Current Borrowing		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other Liabilities Principal Repayment		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Long-term Liabilities Principal Repayment		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Purchase Other Current Assets		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Purchase Long-term Assets		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Dividends		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Cash Spent		$13,191	$24,786	$26,293	$29,489	$32,198	$34,488	$40,394	$43,210	$48,184	$45,559	$50,677	$37,152
Net Cash Flow		($1,191)	($4,786)	$3,707	$2,511	$7,802	$17,512	$21,606	$20,790	$3,816	$11,441	($35,677)	$36,848
Cash Balance		$4,309	($477)	$3,230	$5,741	$13,543	$31,054	$52,660	$73,450	$77,266	$88,707	$53,031	$89,879

Monthly Balance Sheet Table

Pro Forma Balance Sheet													
		Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
Assets	Starting Balances												
Current Assets													
Cash	$5,500	$4,309	($477)	$3,230	$5,741	$13,543	$31,054	$52,660	$73,450	$77,266	$88,707	$53,031	$89,879
Accounts Receivable	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Inventory	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other Current Assets	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Current Assets	$5,500	$4,309	($477)	$3,230	$5,741	$13,543	$31,054	$52,660	$73,450	$77,266	$88,707	$53,031	$89,879
Long-term Assets													
Long-term Assets	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Accumulated Depreciation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Long-term Assets	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Assets	$5,500	$4,309	($477)	$3,230	$5,741	$13,543	$31,054	$52,660	$73,450	$77,266	$88,707	$53,031	$89,879
Liabilities and Capital		Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
Current Liabilities													
Accounts Payable	$0	$5,547	$6,944	$10,118	$10,753	$12,912	$16,721	$19,515	$20,150	$15,483	$16,690	$2,519	$21,249
Current Borrowing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other Current Liabilities	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Current Liabilities	$0	$5,547	$6,944	$10,118	$10,753	$12,912	$16,721	$19,515	$20,150	$15,483	$16,690	$2,519	$21,249
Long-term Liabilities	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Liabilities	$0	$5,547	$6,944	$10,118	$10,753	$12,912	$16,721	$19,515	$20,150	$15,483	$16,690	$2,519	$21,249
Paid-in Capital	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000
Retained Earnings	($39,500)	($39,500)	($39,500)	($39,500)	($39,500)	($39,500)	($39,500)	($39,500)	($39,500)	($39,500)	($39,500)	($39,500)	($39,500)
Earnings	$0	($6,738)	($12,921)	($12,388)	($10,512)	($4,869)	$8,833	$27,645	$47,800	$56,283	$66,518	$45,012	$63,130
Total Capital	$5,500	($1,238)	($7,421)	($6,888)	($5,012)	$631	$14,333	$33,145	$53,300	$61,783	$72,018	$50,512	$68,630
Total Liabilities and Capital	$5,500	$4,309	($477)	$3,230	$5,741	$13,543	$31,054	$52,660	$73,450	$77,266	$88,707	$53,031	$89,879
Net Worth	$5,500	($1,238)	($7,421)	($6,888)	($5,012)	$631	$14,333	$33,145	$53,300	$61,783	$72,018	$50,512	$68,630

NVG Service Request

Prong 1: Substantial merit and national importance of the proposed endeavor.

(208) 426-8117

How ASU Is Transforming Helicopter Safety With Night Vision Goggles



March 13, 2023

Thanks to journalist Ben Forrest for the excellent coverage in Vertical highlighting how Aviation Specialties Unlimited (ASU) continues to revolutionize aviation safety with night vision technology.

For more than 25 years, night vision goggles (NVGs) have been one of the most transformative safety upgrades in the helicopter industry. Once used exclusively by military pilots, NVGs are now standard equipment across civilian, law

enforcement, firefighting, and helicopter emergency medical services (HEMS)—largely due to the pioneering work of ASU and its founder, Mike Atwood.

A Pioneer in Civilian Night Vision Technology

When Atwood, a former U.S. Army Apache pilot, launched ASU in 1995, his mission was simple: help pilots save lives with night vision technology.

“Mike basically opened up the ability for anyone in the U.S. domestic market—and around the world—to fly with night vision goggles safely,” said Dr. Joseph Estrera, president of ASU. “That’s created roughly *4.2 million NVG-enabled flights* that wouldn’t have existed otherwise.”

Atwood’s leadership helped break down significant regulatory and technological barriers, enabling widespread adoption of NVGs in civilian aviation.



A Trusted NVG Training Partner for the FAA

ASU's credibility in the industry is further demonstrated by its five-year training contract with the Federal Aviation Administration (FAA).

Beginning in January 2023, ASU has been providing initial and recurrent NVG ground and flight training for FAA commercial helicopter-rated inspectors and pilots.

"It's at the heart of our core competencies," said Chad St. Francis, vice president of business development and marketing. "We're honored to train the FAA professionals who will shape NVG flight standards and safety."



Expanding Night Vision Capabilities in Brazil

ASU is also accelerating international NVG adoption. Its newest contract—secured through Brazilian distributor Quartzo Defense—makes NVG equipment and training available to public safety agencies across all 26 Brazilian states and the Federal District.

The initial order includes:

- Night vision goggles
- Flight helmets
- NVG flight training for military police and firefighting aviation units

“This is our largest contract in Brazil to date, and it holds enormous potential,” said Dan Meyer, ASU’s vice president of sales.



Recognition of Innovation and Leadership

The industry continues to recognize Mike Atwood's impact. He was recently inducted into the Association of United States Night Vision Manufacturers Hall of Fame—a testament to his groundbreaking work bringing NVG technology to civilian aviation.

"Twenty years ago, the barrier to entry was as tall as Everest," Estrera noted. "Mike clawed his way through it. No one had done it before."

Pushing the Boundaries of Night Vision Technology

ASU isn't slowing down. The company is working on lightweight wide field-of-view NVGs for U.S. Special Operations Command (USSOCOM), partially funded by the U.S. Department of Defense through its APFIT (Accelerate the Procurement and Fielding of Innovative Technologies) program.

Key improvements include:

- **Field of view expansion:** 40° ➜ 97°
- **Weight reduction:** 800g ➜ 660g

The goal is to design, manufacture, and deliver these new NVGs in just 24 months.

“This system provides improved situational awareness and reduces stress for the warfighter,” St. Francis explained.



Advancing NVG Technology for Civilian Pilots

ASU is also developing next-generation lightweight binocular NVGs for civilian use, with a targeted release in mid-2023.

“There is global momentum to expand safe night vision operations,” St. Francis said. “ASU is ready with the right NVG training, aircraft lighting, and night vision systems.”

Meyer added, “Our commitment to innovation and manufacturing allows us to provide everything our customers need for safe mission execution. That commitment strengthens our partnerships and supports long-term success.”

FAA training Night Vision Training NVG training Training

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February 15, 2009

ASU Awarded Contract With Gulf Helicopter Company For Night Vision Goggle Training

ASU has been awarded a contract with Qatar based Gulf Helicopter Company (GHC), for the provision and training of the Company's Emergency Medical Crews. The

Prong 1: substantial merit and national importance

Emergency Support Function #9 – Search and Rescue Annex

ESF Coordinator:

Department of Homeland Security/
Federal Emergency Management Agency

Primary Agencies:

Department of Homeland Security/
Federal Emergency Management Agency
Department of Homeland Security/
U.S. Coast Guard
Department of the Interior/National Park Service
Department of Defense

Support Agencies:

Department of Agriculture
Department of Commerce
Department of Defense
Department of Health and Human Services
Department of Homeland Security
Department of the Interior
Department of Justice
Department of Labor
Department of Transportation
National Aeronautics and Space Administration
U.S. Agency for International Development

INTRODUCTION

Purpose

Emergency Support Function (ESF) #9 – Search and Rescue (SAR) deploys Federal SAR resources to provide lifesaving assistance to local, state, tribal, territorial, and insular area authorities, including local SAR Coordinators and Mission Coordinators, when there is an actual or anticipated request for Federal SAR assistance.

Scope

During incidents or potential incidents requiring a unified SAR response, Federal SAR responsibilities reside with ESF #9 primary agencies that provide timely and specialized SAR capabilities. Support agencies provide specific capabilities or resources that support ESF #9. Federal SAR response operational environments are classified as:

Structural Collapse Urban Search and Rescue (US&R): includes operations for natural and manmade disasters and catastrophic incidents, as well as other structural collapse operations that primarily require Department of Homeland Security (DHS), Federal Emergency Management Agency (FEMA) US&R task force operations.

Maritime/Coastal/Waterborne SAR: includes operations for natural and manmade disasters that primarily require air, cutter, boat, and response team operations.

Land SAR: includes operations that require aviation and ground forces to meet mission objectives, other than maritime/coastal/waterborne and structural collapse SAR operations as described above.

SAR services include distress monitoring; incident communications; locating distressed personnel; and coordinating and executing rescue operations, including extrication and/or evacuation as well as providing medical assistance and civilian services through the use of public and private resources to assist persons and property in potential or

actual distress. No provision of this annex is to be construed as an obstruction to prompt and effective action by any agency to assist persons in distress.

RELATIONSHIP TO THE WHOLE COMMUNITY

This section describes how ESF #9 relates to other elements of the whole community.

Local, State, Tribal, Territorial, and Insular Area Governments

Local, state, tribal, territorial, and insular area authorities are responsible for SAR within their respective jurisdictions and typically designate a SAR Coordinator to provide integration and coordination of all SAR services.

If an affected local, state, tribal, territorial, or insular area government publishes guidance or a plan for conducting unified SAR operations, that guidance or plan takes precedence.

The affected state requests state-to-state assistance through the Emergency Management Assistance Compact (EMAC). Other local SAR resources are requested by the affected locality through other mutual aid and assistance agreements. Non-Federal SAR resources are, as appropriate, incorporated into any coordinated SAR operations.

Federal SAR responders assist and support local, state, tribal, territorial, and insular area SAR capabilities for incidents requiring a coordinated Federal response.

Federal Government

Specific information on Federal Government actions is described in the following sections.

CORE CAPABILITES AND ACTIONS

ESF Roles Aligned to Core Capabilities

The following table lists the response core capability that ESF #9 most directly supports along with the related ESF #9 actions. Though not listed in the table, all ESFs, including ESF #9, support the following core capabilities: Planning, Operational Coordination, and Public Information and Warning.

Core Capability	ESF # 9 – Search and Rescue
Mass Search and Rescue Operations	• Activates when an incident is anticipated or occurs and may result in a request for a unified SAR response to an affected area. • Federal SAR responders assist and support local, state, tribal, territorial, and insular area SAR capabilities in incidents requiring a coordinated Federal response. No provision of this annex is to be construed as an obstruction to prompt and effective action by any agency to assist persons in distress. • Meets the specific needs of each incident and is scalable based upon the nature and magnitude of the event, the suddenness of onset, and the capability of local SAR resources. Response resources are drawn from ESF # 9 primary and support agencies. • Conducts operations following the National Response Framework (NRF) and National Search and Rescue Plan (NSP), U.S. National SAR Supplement (NSS), Catastrophic Incident SAR (CISAR) Addendum, and other addenda that defines SAR responsibilities and provides guidance to the Federal departments and agencies with civil SAR mandates. – National Search and Rescue Plan (NSP): The NSP is the policy guidance of the signatory Federal departments and agencies for coordinating SAR services to meet domestic needs and international commitments. – National SAR Supplement (NSS): This document provides implementation guidance on the International Aeronautical and Maritime Search and Rescue Manual and the NSP. – Catastrophic Incident SAR (CISAR) Addendum to the NSS: This document provides a description of the unified SAR response to catastrophic incidents, guides Federal authorities involved in the response, and informs local, state, tribal, territorial, and insular area authorities on what to expect of/from Federal SAR responders. • Operates under the Economy Act[1] when there is no Stafford Act declaration. • Assesses the specific SAR requirements and assigns one of the four primary agencies as the overall primary agency for SAR for that particular incident. Designation is dependent upon incident circumstances and the type of response required. • Conducts the following actions when assigned as the overall primary agency for a particular incident: – Coordinates planning and operations between primary and support agencies. – Coordinates resolution of conflicting operational demands for SAR response resources. – Provides representation to appropriate incident facilities (i.e., National Response Coordination Center [NRCC], Regional Response Coordination Center [RRCC], Joint Field Office [JFO], emergency operations centers [EOCs]). • All ESF # 9 primary agencies provide support to the designated overall primary agency as required.

[1] 31 U.S.C. 1535-1536 (2007): This act authorizes Federal departments and agencies to provide goods or services on a reimbursable basis to other Federal departments and agencies.

Agency Actions

Primary Agency	Actions
Department of Homeland Security (DHS)	Federal Emergency Management Agency (FEMA) • Serves as the overall primary agency to accomplish the ESF #9 mission during structural collapse SAR operations in incidents requiring a coordinated Federal response. • Conducts the following actions when DHS/FEMA is designated the overall primary agency: – Manages US&R task force and Incident Support Team (IST) deployments in the affected area. – Coordinates logistical support for US&R assets during field operations. – Coordinates the provisioning of additional support assets. – Provides representation, as required, at the NRCC, JFO, and local, state, tribal, territorial, and insular area EOCs. – Provides incident reports, assessments, and situation reports as required. – Coordinates with local, state, tribal, territorial, insular area, and Federally designated SAR authorities to integrate Federal SAR resources. • US&R includes operations for natural and manmade disasters and catastrophic incidents, as well as other structural collapse operations that primarily require DHS/FEMA US&R task force operations. • The National US&R Response System integrates DHS/FEMA US&R task forces, Incident Support Teams (IST), and technical specialists. • The Federal US&R response integrates DHS/FEMA task forces in support of unified SAR operations conducted following the NSP. • Develops national US&R policy; provides planning guidance and coordination assistance; standardizes task force procedures; evaluates task force operational readiness; funds special equipment and training within available appropriations; and reimburses, as appropriate, task force costs incurred as a result of ESF #9 deployment. • The National US&R Response System is prepared to deploy and initiate operations immediately in support of ESF #9. The task forces are staffed primarily by emergency services personnel who are trained and experienced in collapsed structure SAR operations and possess specialized expertise and equipment. • Upon activation under the NRF, DHS/FEMA US&R task forces are considered Federal assets under the Homeland Security Act of 2002, the Robert T. Stafford Disaster Relief and Emergency Assistance Act, and other applicable authorities.

Primary Agency	Actions
DHS (continued)	• ISTs provide coordination and logistical support to US&R task forces during emergency operations. They also conduct needs assessments and provide technical advice and assistance to local, state, tribal, territorial, and insular area government emergency managers. • Reimburses the parent sponsoring agencies for US&R task forces for authorized US&R deployments. DHS/FEMA is authorized to reimburse such activities when there is a Stafford Act declaration or in anticipation of a declaration. For non-Stafford Act US&R deployments, the Federal department or agency requesting US&R assistance reimburses DHS/FEMA following provisions contained in the Financial Management Support Annex. DHS/FEMA uses the funding provided by the requesting Federal department or agency to reimburse the sponsoring agency for the task forces. • Conducts ESF #9 SAR operations for incidents where DHS/FEMA is the overall primary agency and follows the National US&R Response System manuals, NSP, NSS, and CISAR Addendum. • Works under the following authorities when performing US&R: – Homeland Security Act of 2002 (as amended): 6 U.S.C. 722: This section codified US&R as a system within DHS/FEMA. "There is in the Agency a system known as the Urban Search and Rescue Response System." – Stafford Act: 42 U.S.C. 5121-5207: This act authorizes the President (assisted by DHS/FEMA) to declare major disasters and emergencies in the United States and provide assistance to local, state, tribal, territorial, and insular area governments. The President may use the services of local, state, tribal, territorial, and insular area governments for the purposes of the act, which includes addressing immediate threats to life and property (e.g., SAR operations). – Post-Katrina Emergency Management Reform Act: P.L. 109-295 (2006): This act expands the scope of ESF #9 from only US&R to include all types of SAR activities. Follow-on Congressional guidance established the organizational structure. It codified US&R as a system within DHS/FEMA in the Homeland Security Act of 2002 (as amended). It also mandated DHS/FEMA to develop a Federal response capability to rapidly and effectively deliver assistance essential to saving lives; protecting property or public health and safety; and carrying out the mission of DHS/FEMA by conducting emergency operations to save lives and property.

Primary Agency	Actions
DHS (continued)	U.S. Coast Guard (USCG) • Serves as the overall primary agency to accomplish the ESF # 9 mission during maritime/coastal/waterborne SAR operations in incidents requiring a coordinated Federal response. • Conducts SAR operations for incidents where DHS/USCG is the overall primary agency and follows the SAR response structure as outlined in the NSP, NSS, CISAR Addendum, USCG SAR Addendum, and other DHS/USCG directives. • Maritime/coastal/waterborne SAR includes operations for natural and manmade disasters that primarily require DHS/USCG air, cutter, boat, and response team operations. The Federal maritime/coastal/ waterborne SAR response integrates DHS/USCG resources in support of unified SAR operations conducted per the NSP. • Personnel are trained and experienced in maritime/coastal/ waterborne SAR operations and possess specialized expertise, facilities, and equipment for conducting an effective response to distress situations. • Develops, maintains, and operates rescue facilities for SAR in waters subject to U.S. jurisdiction and is designated the primary agency for maritime/coastal/waterborne SAR under ESF # 9. • Uses staffing at Area, District, and local Sector Command Centers promotes interagency coordination with local, state, tribal, territorial, and insular area emergency managers during incidents requiring a unified SAR response in which maritime/coastal/waterborne SAR resources allocation are required. • Develops, establishes, maintains, and operates rescue facilities under and over the high seas and waters subject to the jurisdiction of the United States consistent with 14 U.S.C. 2. • Performs any and all acts necessary to rescue and aid persons, as well as protect and save property in order to render aid to distressed persons, vessels, and aircraft on and under the high seas and on waters over which the United States has jurisdiction per 14 U.S.C. 88. • Performs any and all acts necessary to render aid to persons and protect and save property imperiled by flood, and may also render aid to persons and protect and save property at any time and at any place at which Coast Guard facilities and personnel are available and can be effectively utilized per 14 U.S.C. 88. • Conducts the following actions when USCG is designated the overall primary agency for incidents: – Manages DHS/USCG SAR resources in the affected area. – Coordinates the provisioning of additional support assets. – Coordinates with local, state, tribal, territorial, insular area and Federally designated SAR authorities to integrate Federal SAR resources. – Provides representation, as required, at the NRCC, JFO, and local, state, tribal, territorial, and insular area EOCs. – Provides incident reports, assessments, and situation reports as required.

Primary Agency	Actions
Department of Interior (DOI)	National Park Service (NPS) • Shares responsibility with the Department of Defense (DOD) as the overall primary agency for a particular incident to accomplish the ESF #9 mission during land SAR operations in incidents requiring a coordinated Federal response. • Conducts ESF #9 SAR operations for incidents where DOI/NPS and/or DOD are the overall primary agency and follows the SAR response structure as outlined in the NSP, NSS, CISAR Addendum, and other relevant DOI/NPS and DOD SAR procedures, directives, and manuals. • Possesses SAR resources that are specially trained to operate in various roles, including ground search, small boat operations, swiftwater rescue, helo-aquatic rescue, and other technical rescue disciplines. DOI/NPS maintains preconfigured teams that include personnel and equipment from DOI/NPS, U.S. Fish and Wildlife Service, U.S. Geological Survey, Bureau of Indian Affairs, and other DOI components in planning for ESF #9. • Conducts the following actions when DOI/NPS is designated the overall primary agency for incidents: – Manages DOI/NPS land SAR resources in the affected area. – Coordinates the provisioning of additional support assets. – Coordinates with local, state, tribal, territorial, insular area, and Federally designated SAR authorities to integrate Federal SAR resources. – Coordinates logistical support for DOI/NPS resources during field operations. – Provides representation, as required, at the NRCC, JFO, and local, state, tribal, territorial, and insular area EOCs. – Provides incident reports, assessments, and situation reports as required. • Assumes authority to provide emergency rescue, firefighting, and cooperative assistance to public safety agencies for related purposes outside of the National Park System.

Primary Agency	Actions
Department of Defense (DOD)	• Shares responsibility with DOI/NPS as the overall primary agency for accomplishing the ESF #9 mission during land SAR operations in incidents requiring a coordinated Federal response. • Conducts the following actions through U.S. Northern Command (USNORTHCOM) and U.S. Pacific Command (USPACOM) when DOD is designated the overall primary agency for incidents: – Manages DOD SAR resources in the affected area. – Coordinates the provisioning of additional support assets. – Coordinates with local, state, tribal, territorial, insular area, and Federally designated SAR authorities to integrate Federal SAR resources. – Provides representation, as required, at the NRCC, JFO, and local, state, tribal, territorial, and insular area EOCs. – Provides incident reports, assessments, and situation reports as required. • Considers specific actions for operations involving DOD: – Coordinates facilities, resources, and special capabilities that conduct and support air, land, and maritime SAR operations according to applicable directives, plans, guidelines, and agreements, when requested by USNORTHCOM and/or USPACOM. – USNORTHCOM and USPACOM provide resources for the organization and coordination of civil SAR services and operations within their assigned SAR regions when requested to assist local, state, tribal, territorial, insular area, and Federal authorities. – If DOD SAR capabilities deploy at the direction of the Air Force Rescue Coordination Center in support of the NSP, and subsequently if the Stafford Act is invoked, those capabilities are administered by the NRF and ESF #9. As soon as practical, a DHS/FEMA or other department/agency mission assignment is submitted to and approved by DOD for those capabilities' continued support. • Provides DOD policy guidance on the following items: – DOD Support to Civil Search and Rescue (DODI 3003.01): States that DOD shall support domestic civil authorities by providing civil SAR service to the fullest extent practicable on a noninterference basis with primary military duties. – Defense Support of Civil Authorities (DODD 3025.18): Provides guidance on the provision of DOD and designated National Guard capabilities when requested by civil authorities.

Support Agency	Actions
Department of Agriculture	United States Forest Service • Develops standby agreements to provide equipment and supplies from the National Interagency Fire Center (NIFC) Cache System at the time of deployment. • Develops contingency plans for use of NIFC contract aircraft during incidents. • If available, provides equipment and supplies from the NIFC Cache System and use of NIFC contract aircraft.

Support Agency	Actions
Department of Commerce	National Oceanic and Atmospheric Administration • Acquires and disseminates weather data, forecasts, and emergency information. • Provides weather information essential for efficient SAR. • Predicts pollutant movement and dispersion over time (marine and atmospheric). • Assesses areas of greatest hazard following a marine or atmospheric release. • Provides satellite services for detecting and locating persons in potential or actual distress in the wilderness, maritime, and aeronautical environments.
Department of Defense (DOD)	National Geospatial-Intelligence Agency (NGA) • Coordinates and manages the timely tasking, acquisition, analysis, and delivery of satellite imagery or imagery-derived products as directed by the primary agency. • Provides expert analysis of imagery to determine damage levels and other elements of essential information as needed. • Provides technical expertise/analysis from other imagery sources, if such expertise resides within DOD/NGA. • Provides mobile geospatial intelligence, including technical experts (e.g., imagery analysts and geospatial analysts) and robust communications to support SAR field teams or other DHS/FEMA field teams, as requested by the primary agency. • Provides imagery-derived and geospatial intelligence analysis in preparation for potential disasters or emergencies. • Coordinates the release and dissemination of DOD/NGA products and/or data following applicable security classifications, licensing, copyright agreements, and limited distribution restrictions. U.S. Army Corps of Engineers (USACE) • Deploys specially trained and equipped structural engineers to augment DHS/FEMA US&R task forces, ISTs, military technical rescue organizations, and general purpose troops during structural collapse incidents and other disaster response missions. • Provides technical support for rescue engineering capability and advises task force leaders and commanders to assess damage, mitigate hazards, enable safe entry, and assure mobility throughout a disaster site to enable rescue and lifesaving operations. • Develops doctrine, training programs, and national standards for structural collapse response operations; conducts initial training courses, advanced coursework, exercises and continuing education for all DHS/FEMA US&R Structures Specialists, and other organizations requiring this capability. • Maintains specialized, pre-positioned, deployable equipment caches to support US&R/Disaster Response operations.
Department of Health and Human Services	• Provides personnel for liaisons and support for medical field operations; medical equipment, supplies, and pharmaceuticals; and veterinary support.

Support Agency	Actions
Department of Homeland Security	Customs and Border Protection (CBP) • Maintains Border Patrol Search, Trauma, and Rescue (BORSTAR) teams, which are highly specialized units capable of responding to emergency SAR situations anywhere in the United States. • Maintains air and marine assets to support SAR transportation operations. • Manages DHS/CBP SAR resources in the affected area. • Coordinates the provisioning of additional support assets. • Coordinates with local, state, tribal, territorial, insular area and Federally designated SAR authorities to integrate Federal SAR resources. • Provides representation, as required, at the NRCC, JFO, and local, state, tribal, territorial, and insular area EOCs. • Provides incident reports, assessments, and situation reports as required.
Department of the Interior	U.S. Geological Survey • Provides personnel with appropriate technical disciplines and specialized technology to support geospatial analysis and mapping products in support of ESF #9 primary agencies.
Department of Justice	• Coordinates force protection as requested and approved pursuant to the ESF #13 mission. • Provides assistance with the development and maintenance of tort liability claims coverage for US&R task force and IST personnel engaged in mobilization, deployment, and field operations.
Department of Labor	The Mine Safety and Health Administration • Provides mine rescue teams, mobile command centers, seismic location systems, TV probe systems, gas sampling analysis, and robot explorers. The Department of Labor Office of Workers' Compensation Programs • Through its Federal Employees' Compensation Program, provides workers compensation guidance, claims resolution, and coverage for US&R task force and IST personnel while they are engaged in mobilization, deployment, and field operations. The Occupational Safety and Health Administration • Implements procedures contained in the Worker Safety and Health Support Annex to provide onsite technical assistance, including the evaluation of SAR team exposure to hazardous substances and the dangers of structural collapse.
Department of Transportation	Federal Aviation Administration • Assumes sole authority to manage the National Airspace System (NAS), which includes operating a safe, secure, and efficient air traffic system; oversight and certification of aircraft and airmen; regulation of airspace; promotion of air commerce; and the support of America's national defense (49 U.S.C.). • Supports activities to protect and recover NAS operations.

Support Agency	Actions
National Aeronautics and Space Administration	• Provides personnel in appropriate technical disciplines (e.g., Disaster Assistance and Rescue Team). • Provides temporary use of facilities for mobilization centers and staging areas for SAR assets.
U.S. Agency for International Development	• Manages the support of international SAR teams to a domestic U.S. disaster following a Stafford Act Declaration under the International Assistance System Concept of Operations (IAS CONOPS) and in support of the NRF's International Coordination Support Annex.
Department of State	• Designates the State Task Force (STF) as the sole entity within the Department of State responsible for coordinating formal offers of international assistance if DHS/FEMA does not activate the IAS CONOPS and proactive offers of assistance from foreign countries or international/multilateral organizations are received. – If the STF has not been established, a lead bureau or the Operations Center's Crisis Management Support (CMS) office is designated. – Requests all offers be forwarded to the STF (or the lead bureau or CMS office, as appropriate) for dispensation.

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ANNEX 9

ESF-9 - SEARCH AND RESCUE

COORDINATING: South Carolina Department of Labor, Licensing, and Regulation/Division of Fire and Life Safety

PRIMARY: South Carolina Department of Natural Resources; South Carolina Law Enforcement Division; South Carolina Department of Transportation; South Carolina Forestry Commission; South Carolina National Guard; Civil Air Patrol

SUPPORT: South Carolina State Guard; Clemson University Livestock-Poultry Health; Department of Environmental Services

I. INTRODUCTION

A. Ground or Rural Search and Rescue is the search for persons who are lost or in distress on land or inland waterways. Traditionally associated with wilderness zones, ground search and rescue services are increasingly required in urban and suburban areas to locate persons with Alzheimer's disease, autism, dementia, or other conditions that lead to wandering behavior. Ground search and rescue missions that occur in urban areas should not be confused with 'urban search and rescue', which in many jurisdictions refers to the location and extrication of people from collapsed buildings or other entrapments. Situations requiring specialized water rescue training and equipment can be called for under the heading of 'Swift Water Rescue'. Some ground search teams also employ search and rescue dogs. In certain circumstances, aircraft may also be used to conduct search and rescue operations.

B. Urban Search and Rescue (US&R) involves the location, extrication, and initial medical stabilization of victims trapped in structural collapse due to natural disasters, mines and collapsed trenches. The causes of US&R incidents can be categorized as accidental, deliberate, or as a result of a natural disaster. Structural collapse incidents can comprise unstable or collapsed structures in an unsafe position. Collapse incidents usually leave voids inside the debris that can result in numerous casualties trapped under large amounts of very heavy and often unstable debris.

C. US&R services can face complex rescue operations within hazardous environments. Incident experience shows that people are often found alive many hours and days after rescue operations commence. Corresponding services should be planned accordingly. The first 72 hours of an incident are crucial to minimizing the mortality rate and search and rescue must begin immediately. Urban disaster search and rescue activities include locating, extricating, and coordinating the immediate medical assistance to victims trapped in collapsed structures.

D. Search and rescue activities include emergency incidents that involve locating missing person(s), boats lost at sea, downed aircraft, extrication if necessary, and initial medical stabilization of victims upon rescue.

E. Swift water and flood search and rescue activities includes locating victims and effecting safe rescue(s) in a moving water environment by ground, water, or air.

II. PURPOSE

The purpose of this annex is to provide state support to local governments by using state resources in missing person, swift water/flood, and urban/disaster search and rescue (SAR) activities during daily events as well as actual or potential disasters.

III. CONCEPT OF OPERATION

A. The SC Department of Labor, Licensing and Regulation (SCLLR); Division of Fire and Life Safety, is responsible for the coordination of all ESF-9 administrative, management, planning, training, preparedness, mitigation, response, and recovery activities to include developing, coordinating, and maintaining the ESF-9 Standard Operating Procedures (SOP).

B. The SERT will provide support to local search and rescue operations through ESF-9 as the coordinating ESF. The SCLLR Division of Fire and Life Safety, as the lead agency, will coordinate the provision of other state personnel and equipment.

C. Upon notification by the State EOC of a potential or actual event requiring response, SERT agencies with SAR assets will be notified by telephone, email or text utilizing the Code Red System. All support agency contact persons for the SAR emergency support function will be instructed to alert their contacts throughout the state to ensure all resources are available.

D. ESF-9 will coordinate the state's search and rescue response.

1. ESF-9 may coordinate the staging of assets before actual requests are forwarded.

2. When state assets are exhausted, or in anticipation of large-scale disasters beyond the state's capability, ESF-9 will coordinate other state or federal resources.

E. Additional specialized resources may be needed from state and federal resources through mutual aid and Emergency Management Assistance Compacts (EMAC).

F. ESF-9 will coordinate with all supporting and other appropriate departments/agencies and organizations to ensure continual operational readiness.

G. ESF-9 will provide daily situation reports, starting at OPCON 2, to all specialized state teams.

H. The Firefighter Mobilization Act of 2000, amended 2013, (South Carolina Code of Laws, Title 23, Chapter 49) mobilizes search and rescue services statewide to respond to any type of emergency that requires additional resources. ESF-9 will

use the mobilization plan to coordinate additional search and rescue resources, as needed.

I. As appropriate, ESF-9 will coordinate deployment of liaison staff to the county emergency operations centers (EOC) and/or the local unified command post(s).

J. ESF-9 will coordinate deployment of aviation search and rescue resources and send liaison staff to county EOCs if requested and/or the local unified command post(s).

K. ESF-9 will coordinate with Federal ESF-9 to obtain and coordinate federal assistance as required.

L. State government agencies assist local government in planning, training, and obtaining resources. The state may assume operational control of any SAR mission when requested by local government.

M. The state may also assume control in situations involving multi-county areas and/or as the Governor directs.

N. Organization of the search and rescue function varies from county to county. The emergency manager, fire/rescue chief, or senior law enforcement official may be designated as the local search coordinator. This function may be delegated to state ESF-9 and then assigned to state or federal SAR subject matter experts.

IV. ESF ACTIONS

A. Prevention/Protection

1. Participate in state exercises and, at least annually, validate this Annex and supporting SOPs.

2. Ensure procedures are in place to document costs for any potential reimbursement.

B. Response

1. Initial Response

a. Coordinate the support of local agencies with appropriate resources, to include mobilizing and deploying teams and equipment as needed.

b. Coordinate and maintain situational awareness of resources committed to an incident.

c. Coordinate with support agencies for the deployment of liaison team(s) to county EOC(s) or Incident/Area Command Post(s).

d. Plan for and coordinate relief resources to replace or rotate with committed resources.

e. Coordinate other state and federal support for search and rescue operations to include planning for reception and deployment to the area of operations.

f. Coordinate air support assets to support search and rescue operations.

g. State and local resources from outside the disaster area are committed through coordination with other agencies with SAR resources.

h. Transportation will be provided, if available, or may be the responsibility of the resource agency. Coordination with the SERT Operations Support Branch may be required. Resources will be pre-positioned if necessary.

2. Sustained and Enduring Operations

a. Coordination between state, local, and if requested, federal SAR resources is controlled by the State Emergency Response Team (ESF-9).

b. SAR resources are reassigned as needed and requested.

c. SAR resources are demobilized when no longer needed.

C. Recovery

1. Provide SAR resources to assist recovery efforts, within the scope of SAR resource mission sets, upon request.

2. Return all activities expeditiously to pre-emergency status.

3. Maintain and update all plans and programs.

4. Continue to coordinate and maintain situational awareness of resources committed to an incident.

5. Continue to coordinate support for local operations and plan for a reduction of operations.

6. Anticipate and plan for the arrival of, and coordination with, FEMA ESF-9 personnel in the SEOC and the JFO.

7. Ensure procedures are in place to document costs for any potential reimbursement.

8. Support recovery priorities as identified by Recovery Task Force.

D. Mitigation

1. Review, evaluate, and comment on proposed State Hazard Mitigation Plan amendments, upon initiation and within review period.

2. Support requests and directives from the Governor and/or FEMA concerning mitigation and/or re-development activities.

3. Document matters that may be needed for inclusion in agency or state/federal briefings, situation reports and action plans.

V. AGENCY RESPONSIBILITIES

A. General

1. Coordinating, primary, and support agencies will identify, train, assign, and provide personnel to staff ESF-9 in the SEOC.

2. Support agencies will designate a lead contact from their agency to ESF-9 and will maintain contact with and prepare to execute missions in support of ESF-9 during periods of activation.

3. Coordinating, primary, and support agencies will establish and maintain a system for alert and mobilization.

B. South Carolina Department of Labor, Licensing, and Regulation

1. Based on availability and upon request, provide a forward liaison to local government and coordinate assistance and/or response from state and federal governments and private SAR organizations.

2. Organize and appropriately train emergency management personnel for participation in all aspects of SAR operations.

3. Coordinate additional training for state and local government agencies and volunteer organizations to ensure an acceptable level of SAR preparedness.

4. Ensure specialized resources are prepared by maintaining training records, applications, and typing criteria.

5. Maintain current directory of qualified resources for search and rescue.

6. Coordinate air assets to transport specialized resources in a timely fashion in coordination with the Air Operations Branch, when activated.

7. Provide search and rescue training.

8. Coordinate and manage South Carolina Urban Search and Rescue (US&R) resources.

9. Coordinate and mobilize qualified resources from fire and rescue services statewide through Firefighter Mobilization and statewide mutual aid agreements.

10. Provide the South Carolina (Palmetto) Incident Support Team (SC-IST) to coordinate and manage search and rescue operations.

C. South Carolina Department of Natural Resources

1. Act as guides in woodland and water search areas.

2. Plan, coordinate, and execute rural search and rescue operations.

3. Provide air, water, and land transportation suitable for SAR missions.

4. Provide SAR teams.

D. South Carolina Law Enforcement Division

Provide personnel, tracking teams, working dogs, air assets, hoists, high intensity spotlights, and Forward Looking Infrared Radar imaging (FLIR) as requested.

E. South Carolina Department of Transportation

Provide aviation support and coordination through the Air Operations Branch.

F. South Carolina National Guard

1. Conduct air and ground search as directed.

2. Conduct swift water/flood search and rescue using qualified civilian helicopter aquatic rescue technicians.

3. Conduct stranded personnel rescue and injured personnel extraction through operating aircraft with rescue hoist or Heli-Basket operations capability.

4. Conduct annual recurrent qualification training with pilot(s), crew chief(s), and qualified civilian rescuers.

5. Provide aviation support with FLIR imaging and high intensity spotlights.

6. Provide manpower, expertise, and supervision of the Air Operations Branch.

G. South Carolina Forestry Commission

1. Provide air and ground search and rescue as directed.

2. Act as guides within state forest areas.

3. Provide four Incident Management (1 Type-2, 3 Type-3) Teams (IMTs) to coordinate management of search and rescue operations as required.

H. Civil Air Patrol

1. Provide trained personnel for air and ground search operations.

2. Provide aerial photography during search and rescues operations.

3. Provide an Incident Commander (IC) for air search operations as tasked by the United States Air Force Rescue Coordination Center (AFRCC) or approving and accepting a mission request from emergency management.

4. Upon receiving a mission number from AFRCC or approving and accepting a mission request from emergency management, provide personnel for ground, lake, or river SAR operations.

I. South Carolina State Guard

Provide trained personnel and available equipment for search and rescue operations.

J. Clemson University Livestock-Poultry Health

Provide assistance in sourcing trained personnel for animal search and rescue operations.

K. Department of Environmental Services (DES)

Provide Hazardous Materials technical assistance.

VI. FEDERAL ASSISTANCE

A. This Annex is supported by the National Response Framework for Federal ESF-9 (Search and Rescue).

B. Federal ESF-9 will coordinate urban search and rescue support to state and local SAR operations through the SERT. SAR activities on federal property, such as national parks, will be under the direction and control of the federal agency under whose jurisdiction the emergency occurs.

C. The Regional Administrator of FEMA is authorized to provide federal assistance as emergency protective measures under the emergency and major disaster provisions of the National Response Framework.

D. The US Air Force Rescue Coordination Center has jurisdiction of inland search operations for incidents involving aircraft.

E. The US Coast Guard Rescue Coordination Center has jurisdiction of search and rescue missions over coastal and navigable waterways.

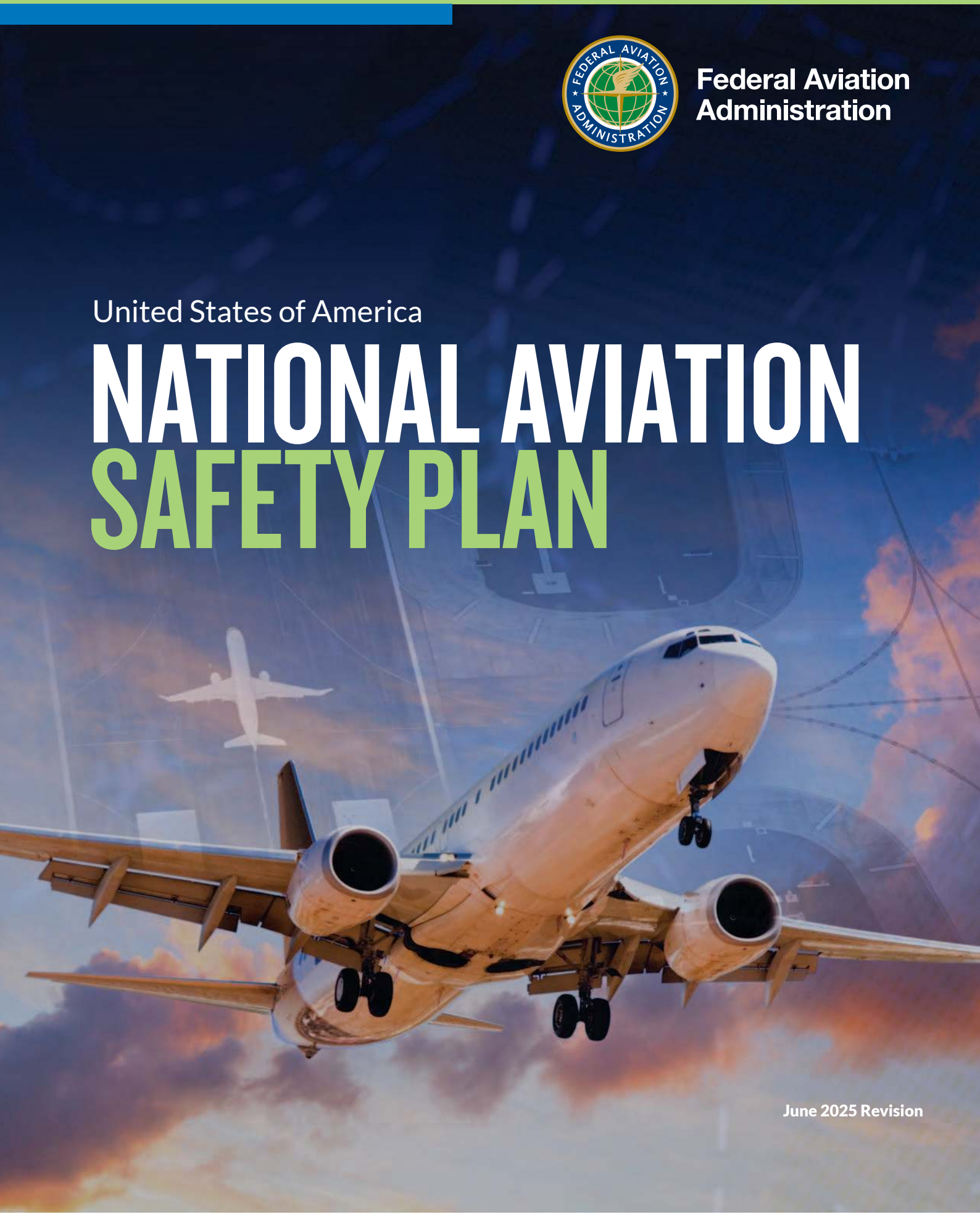
F. Federal ESF-9 will generally be a part of the IMAT and may be represented on any advance element.

G. The National US&R Response System is an integrated system of US&R task forces, Incident Support Teams (IST), and technical specialists.

Federal Aviation Administration

United States of America

NATIONAL AVIATION SAFETY PLAN



June 2025 Revision

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EXECUTIVE SUMMARY

Amidst an ever-changing operating environment, the United States continues our steadfast commitment to pursuing the highest levels of safety in the National Airspace System and contributing to global efforts to improve aviation safety. We recognize that aviation safety is a result of the combined efforts of all aviation stakeholders, both public and private. Across the U.S. Government, a number of departments and agencies play a role in establishing, maintaining, and overseeing civil aviation safety.

The Federal Aviation Administration (FAA) is pleased to contribute to the implementation of the International Civil Aviation Organization's (ICAO) Global Aviation Safety Plan (GASP) by establishing the U.S. National Aviation Safety Plan (NASP) with the support of other U.S. Government agencies.

The NASP is comprised of the plans, programs and other resources, which, together with the U.S. State Safety Program (U.S. SSP) document, create a holistic view of how the United States manages civil aviation safety. The NASP also allows us to provide even greater transparency into the multi-faceted U.S. approach to aviation safety.

We trust that the U.S. NASP will serve as a valuable source of information about the U.S. civil aviation safety oversight system for the flying public, international civil aviation authorities, industry, and other stakeholders.



INTRODUCTION

The United States is committed to the management and continual improvement of our national civil aviation safety in accordance with the State Safety Policy and Objectives published in the U.S. SSP document. The United States has created the NASP to fulfill the goals and targets outlined in ICAO's GASP by communicating clearly to all stakeholders the U.S. Government's strategies for improving national civil aviation safety and providing this compendium as a resource to access more information about these strategies, initiatives, and programs.

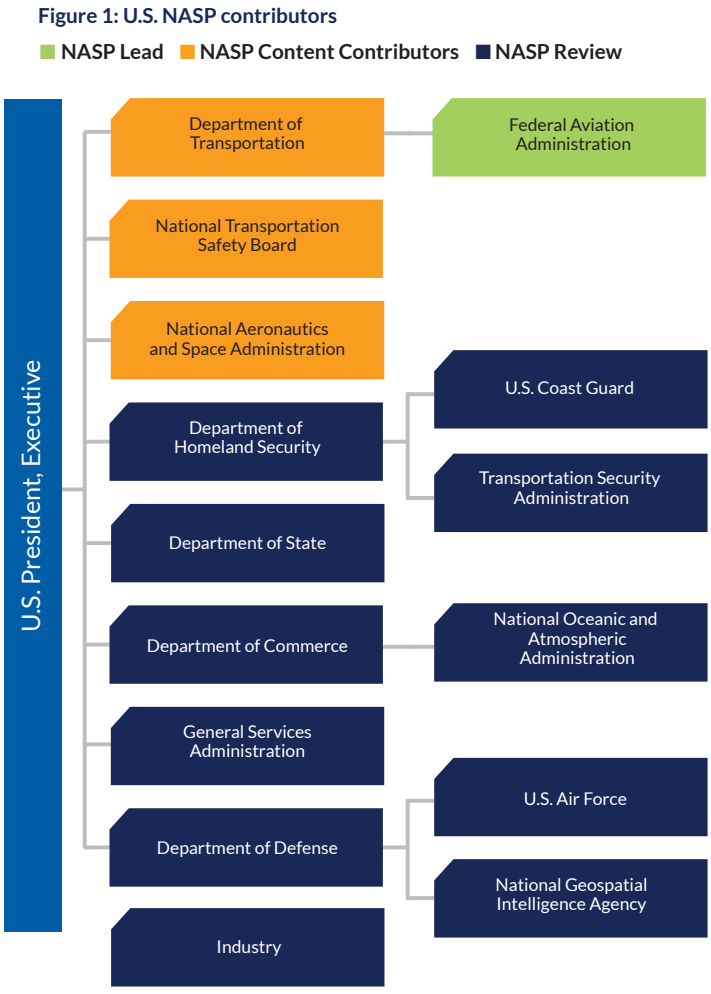
OVERVIEW OF U.S. NASP

The U.S. NASP provides information on the U.S. National Airspace System* and its operational picture as well as the strategic direction for the management of aviation safety. The NASP outlines the areas in which the U.S. Government is targeting civil aviation-related resources and helps inform aviation stakeholders of U.S. priority areas for the management of civil aviation safety.

U.S. NASP DEVELOPMENT

The FAA's Aviation Safety organization manages the NASP development, updates, and publication in coordination with the U.S. Government departments and agencies shown in Figure 1 and in consultation with other stakeholders.

Figure 1: U.S. NASP contributors



* The **U.S. National Airspace System** is a network of controlled and uncontrolled airspace, both domestic and oceanic. It also includes air navigation facilities, equipment and services; airports and landing areas; aeronautical charts, information and services; rules and regulations; procedures and technical information; and manpower and material. [Source: https://www.faa.gov/air_traffic/nas/]

RELATIONSHIP BETWEEN THE U.S. NASP AND THE U.S. SSP

The NASP is one of the key documents produced as part of the U.S. SSP documentation. The U.S. SSP document provides information describing HOW the U.S Government manages civil aviation safety, while the NASP focuses on WHAT the U.S. Government is managing in the U.S. National Airspace System, including the operational context as well as operational and other safety priorities. These are complementary, but each has a distinct focus. Neither the U.S. NASP nor the U.S. SSP document supersede any specific regulation, instruction, or order pertaining to specific rules or requirements.

Read the U.S. SSP document to learn more about the mechanisms and frameworks employed to identify and address specific activities that support the safe and efficient delivery of aviation activities.

U.S. CIVIL AVIATION OPERATIONAL OVERVIEW*

The U.S. National Airspace System is the busiest and safest airspace system in the world, and this operational context is the backdrop for the civil aviation safety management content in the U.S. NASP. The following resources provide current and forecasted information on the U.S. National Airspace System:

- **FAA Administrator's Fact Book**
  Provides statistics, data, and other information about aviation safety and the FAA's management of the nation's airspace system. Content covers the agency's air traffic, commercial space transportation, aircraft, airspace modernization, and drones.
- **Air Traffic By The Numbers**
  This infographic is an easy-to-reference source for relevant facts and information about U.S. airspace and FAA Air Traffic Organization services.
- **FAA Operations & Performance Data**
  Provides access to historical traffic counts, forecasts of aviation activity, and delay statistics.
- **Aviation Data & Statistics**
  An FAA-hosted collection of aviation data and statistics resources.
- **FAA Aviation Forecasts**
  The FAA tracks the trends and trajectories of U.S. airspace operations in the annual release of FAA Aviation Forecasts. The purpose of the forecasts is to predict future demand within the aviation industry. The FAA develops the commercial aviation forecasts and assumptions from statistical



Figure 2: Comparing the U.S. SSP document and U.S. NASP

* Unlike many States, the U.S. has a Federal, rather than Civil, national airspace system (NAS). While some States have separate airspace/rules/systems for civil and military aviation, the US Federal Aviation Act of 1958 established a Federal, rather than Civil, NAS for use by both military and civilian aircraft, with air traffic services (later corrected to air navigation services) provided by civil and military controllers.

PURPOSE

The U.S. NASP compiles existing U.S. Government plans and initiatives that contribute to describing the strategic direction for managing civil aviation safety in the United States. The U.S. NASP does not modify or supersede the content or activities contained in these plans and initiatives, but instead provides a complementary, informational resource of relevant materials. Through the provided web links within this plan, you will find U.S. Government information about civil aviation safety planning, priorities, targets, performance, and safety improvement efforts, together with their duration(s) and/or time period(s), where applicable. The content in the U.S. NASP will be updated regularly to reflect current information and practices.

RELATIONSHIP BETWEEN U.S. NASP AND GLOBAL AND REGIONAL AVIATION SAFETY PLANS

ICAO created the GASP to "...continually reduce fatalities, and the risk of fatalities, by guiding the development of a harmonized aviation safety strategy, regional aviation safety plans and national aviation safety plans."[1] The GASP provides a global framework for developing and implementing national aviation safety plans. The U.S. NASP supports the intent of this framework to the extent practicable for the United States and the achievement of corresponding goals and targets in the GASP. The United States also participates in the development of regional aviation safety plans (RASP) through membership and/or accreditation to ICAO Regional Aviation Safety Groups (RASGs). U.S. civil aviation safety data and/or information may contribute to the following RASPs:





Figure 3 describes the relationship among the U.S. NASP, the NACC RASP, and ICAO GASP

- **ICAO North American, Central American and Caribbean (NACC) RASP (Accredited)**
- **ICAO Asia-Pacific RASP (Member)**

Contributing to the ICAO NACC RASP

The ICAO NACC Regional Office monitors the implementation of the Safety Enhancement Initiatives listed in the NACC RASP and measures safety performance of the regional civil aviation system in cooperation with the RASG-Pan America (RASG-PA). The United States contributes to this monitoring through participation in the RASG-PA and its contributory bodies, including the provision and analysis of civil aviation safety data and reporting. The United States also reports information to the NACC Regional Office upon request. (see Figure 3)

ADDITIONAL U.S. CIVIL AVIATION-RELATED PLANS

The following plans provide information about the infrastructure and human capital aspects of air transport at the national level and the strategic direction that contributes to the management of civil aviation safety in the United States:

[1] The Global Aviation Safety Plan (GASP) presents the strategy which supports the prioritization and continuous improvement of aviation safety. https://www.icao.int/safety/GASP/Pages/default.aspx



Strategic plans

- **Department of Transportation (DOT) Strategic Plan**
  Establishes DOT's strategic goals and objectives.
- **FAA Plan**
  Establishes the FAA activities in alignment with DOT's Strategic Plan DOT Strategic Plan, and describes four-year goals the agency will pursue and the yearly actions that will contribute to realizing these objectives.
- **National Transportation Safety Board (NTSB) Strategic Plan**
  Establishes the NTSB's strategic priorities, goals, and objectives.
- **National Aeronautics and Space Administration (NASA) Aeronautics Research Mission Directorate Strategic Plan**
  Establishes strategic goals and objectives for aeronautics research performed under NASA's Aeronautics Research Mission Directorate. Research includes vehicle, airspace and safety-related capabilities for civil aviation.
- **NASA Volume of Integrated Performance**
  Annual performance report that describes progress toward agency goals and objectives. Civil aviation-related items focus on research and development.

More information about the Strategic Plans listed above is provided in A strategic approach to managing safety.

Aviation infrastructure plans

- **Federal Aviation Administration Capital Investment Plan**
  Multi-year plan for the U.S. national infrastructure, airspace modernization programs and activities..
- **Airports Capital Improvement Plan**
  Plan that identifies eligible, justified, and reasonable development, planning, equipment, or environmental projects for airports, which are in the National Plan of Integrated Airport Systems.

Aviation Professionals Development

- **FAA Science, Technology, Engineering, and Math (STEM) Aviation & Space Education (AVSED) Program**
  Plans to promote the next generation of skilled aviation and aerospace professionals.

A STRATEGIC APPROACH TO MANAGING AVIATION SAFETY

The U.S. NASP centralizes access to resources that demonstrate how the United States manages civil aviation safety. The NASP promotes connectivity among U.S. civil aviation safety planning, programs, and initiatives but does not impose new requirements. Due to the size and complexity of the U.S. National Airspace System and the number and variety of government and private stakeholders, the U.S. NASP focuses on providing a comprehensive presentation of civil aviation safety management activities by U.S. Government agencies managing the National Airspace System.

The FAA's Aviation Safety organization leads the management of the U.S. NASP in collaboration with entities responsible for or participating in aviation safety management, and ensures endorsement of the plan by senior U.S. aviation leadership. The content in the U.S. NASP will be regularly reviewed and updated through a collaborative approach to ensure it reflects evolving information and practices. Many U.S. organizations play important roles in supporting the highest levels of safety, and participation by identified stakeholders is important to an accurate and informative U.S. NASP. Read U.S. NASP development for more details about contributors to the plan.

SAFETY GOALS AND TARGETS

As discussed in the U.S. SSP document, the U.S. civil aviation safety system encompasses a number of public and private stakeholders, including multiple U.S. Government departments and agencies with specific functions and responsibilities. The U.S. SSP document focuses on the FAA and NTSB because those two organizations fulfill the majority of SSP-related functions for the United States.[i] Each of these organizations establishes strategic plans that describe goals for a defined period, typically three to five fiscal years. [2]

DOT and FAA

The DOT and FAA plans include safety elements that are reflected in annual priorities and targets. Metrics (e.g., performance or success indicators) are important components of the plans. The Plans also incorporate stakeholder input received during the development process, where appropriate. Figure 4 shows how safety targets are established annually in alignment with the Strategic Plans.



[2] The U.S. Government fiscal year begins on October 1 and ends on September 30 of the following year.

NTSB

The NTSB's Strategic Plan identifies goals for improving transportation safety, with a focus on enhancing the effectiveness and efficiency of its investigative products and processes. Data collection and analysis are fundamental aspects of informing these efforts and continually improving the management and execution of agency objectives.

Global safety goals and targets

The ICAO GASP contains safety goals and targets for countries, regions, and industry. The United States continues to focus on reducing fatalities and serious injuries and contributing to ICAO RASGs as shown in Figure 6.

SAFETY MANAGEMENT SYSTEMS (SMS) IN THE FAA

The U.S. SSP document describes in detail how the FAA demonstrates commitment to safety management principles through internal SMS implementation and oversight as part of its responsibility to regulate and oversee all aspects of U.S. civil aviation safety. This strategic approach integrates the

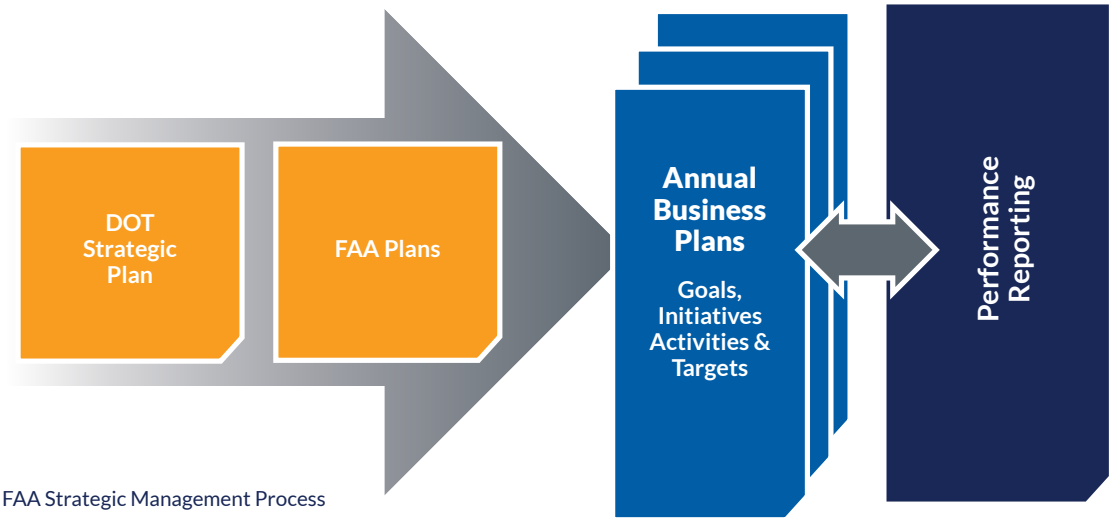


Figure 4: DOT and FAA Strategic Management Process

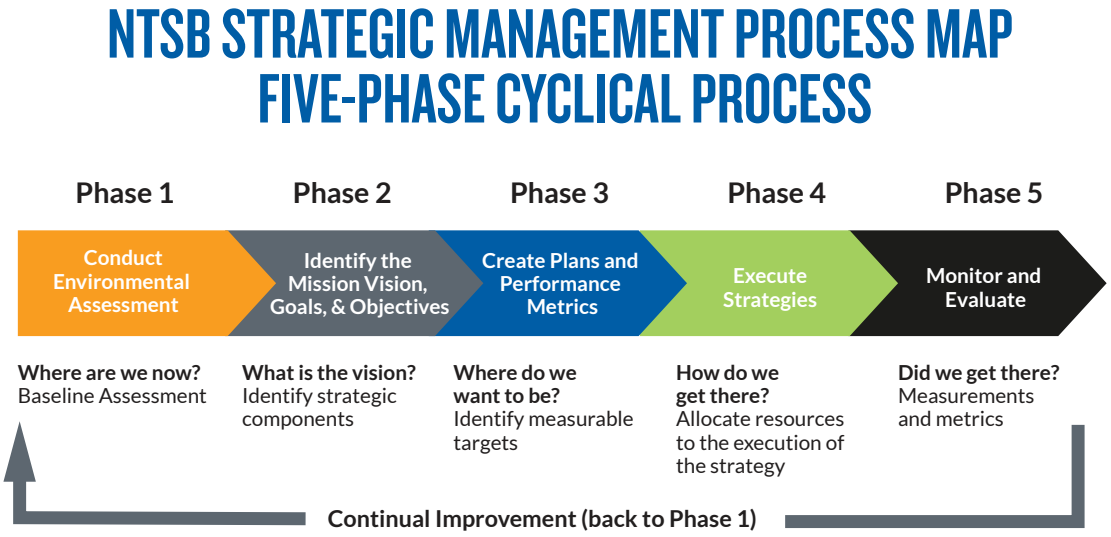


Figure 5: NTSB Strategic Management Process Map

GASP 2023-2025 Goal	GASP Target	What We Are Doing
Achieve a continuous reduction of operational safety risks	Maintain a decreasing trend of global accident rate	The DOT and FAA plans include safety elements that are reflected in annual priorities and targets
Increase collaboration at the regional level	By 2025, all States to contribute information on safety risks, including SSP safety performance indicators (SPIs), to their respective regional aviation safety group (RASGs)	The FAA participates in the following ICAO RASGs and contributory bodies covering the Pan America (North America, Central America, Caribbean, and South America), Asia and Pacific, and North Atlantic regions: • **RASG-PA** • **RASG-Asia and Pacific Regions** • **North Atlantic Systems Planning Group and Safety Oversight Group**

Figure 6: DOT, FAA Plans compared to global safety goals and targets

management of safety risk into business planning, operations, and decision-making. More information about SMS in the FAA:

- **FAA Programs & Initiatives: SMS**
  Provides information about SMS, Aviation Safety and the interface with FAA, including information about the FAA's SMS international collaboration efforts and information tailored to specific aviation sectors.
- **FAA Order 8000.369 - Safety Management System**
  Establishes the SMS policy and requirements for the FAA.

EMERGING ISSUES

Emerging issues include concepts of operations, technologies, public policies, business models or ideas that might impact safety in the future, for which insufficient data exists to complete typical data-driven analysis. It is important to remain vigilant with respect to emerging issues to identify any potential safety risks, collect relevant data, and proactively develop mitigations to appropriately address risks.

In June 2024, the US government and industry jointly established the Aviation Safety Team (AST) to address the increasingly complex and interconnected risks within the National Airspace System. The AST integrates existing safety teams from the commercial (CAST), general aviation (GAJSC) and rotorcraft (USHST) communities with the Aviation Safety Information Analysis and Sharing (ASIAS) assets with plans to include emerging entrance safety teams in the future. Additionally, the AST model also includes a new National Safety Issue Registry (NSIR) to serve as a repository of issues that have the potential to have a national systemic outcome and provide national-level safety assurance. Educational and informational products generated by these safety teams are made available through public-facing websites such as the SKYbrary (CAST), the GAJSC website, and the USHST website.

In addition to the safety-related goals, objectives, initiatives, and FAA key activities identified in the DOT and FAA Strategic Plans, the following programs and initiatives further support a risk-based approach to the identification of emerging issues:

- **Aviation Safety Information Analysis and Sharing (ASIAS)**
  A central conduit for the exchange of safety information among stakeholders from the commercial, general aviation and rotorcraft communities. The information is used for analyses that inform safety decisions to reduce the risk of accidents.
- **FAA Integrated Oversight Philosophy**
  Identifies principles for evolving safety oversight systems, to better position the FAA to meet the challenges of a rapidly evolving U.S. aerospace system..
- **FAA Compliance Program**
  The FAA's approach to compliance and the advanced integration of these concepts into the fabric of the agency's mission.
- **FAA Flight Standards Service System Approach for Safety Oversight Program**
  Established to develop and implement a comprehensive system safety approach to the oversight of aviation entities, with the goal to improve safety beyond current levels by enhancing Risk-Based Decision-Making practices and initiatives.



- **Aviation Voluntary Reporting Programs**
  Proactive public-private partnership programs enabling aviation employees to voluntarily and confidentially report operational experiences and safety concerns for non-punitive review and analysis. These programs support identifying and resolving latent emerging issues. Voluntary reporting programs are also important operational safety priorities.
- **National Aviation Research Plan**
  The National Aviation Research Plan, or NARP, provides an overview of the FAA's research and development (R&D) plans over the next five years, highlighting near-, mid- and far-term research.

Research and development

Rapid innovation in aerospace is fundamentally transforming aviation. More than ever, we need our researchers to continue finding creative solutions to complex aviation problems. To succeed, we must balance bold new ideas with tried and true safety considerations.

FAA

The FAA's R&D is primarily applied research designed to help the FAA develop policies, regulations, certifications, guidance, and standards that increase safety and modernize the National Airspace System.

The annual NARP presents the FAA's R&D goals, highlights planned research, and identifies partnerships with other agencies, academia, and industry. The FAA utilizes industry/academia partnerships and their state-of-the-art research

The FAA's R&D portfolio is guided by national goals, research priorities, and strategic plans that inform the NARP. Focus areas include new entrants such as drones, and supersonic flight; cybersecurity; resiliency, and more.

laboratories to conduct leading-edge research to meet mission-critical program objectives. Both the William J. Hughes Technical Center in Atlantic City, NJ and the Civil Aerospace Medical Institute at the Mike Monroney Aeronautical Center in Oklahoma City, OK are home to world–renowned scientists and host the largest percentage of FAA's STEM workforce.

William J. Hughes Technical Center (WJHTC)

The WJHTC serves as the FAA's laboratory and scientific test base for research, development, test and evaluation. It develops, manages and operates over 500,000 square feet of aviation laboratories. This national asset underpins all air traffic control system modernization programs and serves as the proving ground for new aviation safety programs and capabilities. The WJHTC's research, engineering, development, test, and evaluation capabilities remain essential to the continued advancement of technologies that improve aviation safety and mitigate impacts on the environment.

Civil Aerospace Medical Institute (CAMI)

CAMI is the medical certification, research, education, and occupational health wing of the FAA's Office of Aerospace Medicine. It focuses on the human element in flight – i.e., pilots, flight attendants, passengers, air traffic controllers, and the entire human support system that embraces civil aviation. CAMI has more than a dozen complex labs and large-scale, computerized health system and performance databases. CAMI



researchers study the factors influencing human performance in the aerospace environment, find ways to understand them, and communicate that understanding to the aerospace community.

The FAA also collaborates with other U.S. Government agencies leading aerospace R&D programs to leverage resources and expertise in advancing aviation safety.

NASA

NASA Aeronautics Research Mission Directorate

Aviation safety research is conducted at NASA within the Airspace Operations and Safety Program. NASA acts as an independent research institution and coordinates with the FAA and other government and industry stakeholders to provide evidence and recommendations for safety policy and safety promotion. NASA's subject matter expertise includes risk analysis, computational modeling, flight testing, and human-machine interaction. NASA is also home to the Aviation Safety Reporting System (ASRS), which is administered through an agreement with the FAA and as part of FAA's Aviation Safety Reporting Program. ASRS is used as both a vital source of data about current and trending aviation safety and as a repository for aviation safety research.

The programs and initiatives described here, along with others included in the U.S. SSP document, also contribute to civil aviation operational safety priorities in the U.S. National Airspace System.

U.S. Coast Guard

The United States prevention of civil aviation fatalities extends to the safety of crew and passengers even after an accident.

National Search and Rescue Committee and United States Search and Rescue Publications

The United States considers its search and rescue activities (SAR) as part of the safety of aviation crew and passengers, specifically for those involved in aviation accidents and incidents. The U.S. Coast Guard's primary goal is to prevent loss of life in every situation within its SAR mission. Successfully meeting the SAR mission for aviation accidents requires active management and coordination of national and international stakeholders. The United States established the National Search and Rescue Committee (formerly the Inter-Agency Committee on Search and Rescue) that oversees the National Search and Rescue Plan (and more detailed U.S. National Search and Rescue Supplement) comprised of various USG Departments and Agencies.

OPERATIONAL SAFETY PRIORITIES

The U.S. SSP document describes how the United States collects aviation safety data from numerous sources and develops and processes information from aggregated data sources and highlights examples of U.S. risk-based oversight systems for targeting areas of greater concern or need.[3] Aviation voluntary reporting programs and public-private partnerships contribute significantly to civil aviation operational safety in the U.S. National Airspace System by supporting the data- driven identification of safety risks and corresponding safety enhancements. The work done through these partnerships, which are committed to enhancing safety and reducing fatality risk in various aviation sectors, drives safety improvements including, but not limited to, actions such as: rulemaking; policy development; targeted safety oversight activities; safety data analysis; and safety promotion. The collaboration between government and industry, at all levels, has been instrumental in the success the United States has achieved in the improvement of aviation safety. Continued success in advancing aviation safety depends on these strong safety partnerships built on trust and the ability to share and protect voluntarily provided safety information.

The FAA continues to work with private and public stakeholders to establish and implement safety management systems to address and reduce risk within their operations and the National Airspace System, and to encourage voluntary investments in safety enhancements that reduce the fatality risk.

FAA OPERATIONAL SAFETY INITIATIVES

The FAA continually monitors the U.S. National Airspace System through surveillance, inspection, review, investigation, and analysis to look for conditions that affect the safety of operations, equipment/ systems, airplanes, and people. The following operational safety initiatives contribute to improving or maintaining current safety levels by providing information, guidance, and resources to aviation personnel and the traveling public:

> The U.S. SSP document describes how the United States collects aviation safety data and develops and processes information for targeting aviation safety areas of greater concern or need.

- **Aviation Voluntary Reporting Programs**
  - **Airports Voluntary Reporting System (AVRS) under the FAA Airports (ARP) Safety Management System**
    AVRS enables FAA employees in the Office of Airports to report hazards, safety-related issues, concerns, and incidents through a process in which they can provide recommended solutions and ideas for mitigation or improvement..
  - **Air Traffic Safety Action Program (ATSAP), ATSAP-X, SAFER – Federal Contract Towers (FCT), and Technical Operations Safety Action Program (T-SAP)**
    These programs foster a voluntary, cooperative, non-punitive environment for FAA air traffic employees (ATSAP), FAA engineers, architects, flight procedures team, and others (ATSAP-X), FAA Contract Air Traffic Controllers (SAFER-FCT), and FAA technicians (T-SAP) to openly report safety concerns.
  - **Aviation Safety Action Program (ASAP)**
    The ASAP encourages air carrier and repair station employees to voluntarily report safety information that may be critical to identifying potential precursors to accidents.
  - **Aviation Safety Reporting System (ASRS)**
    NASA manages and maintains the ASRS under an agreement with FAA's Aviation Safety Reporting Program. ASRS is an important facet of the continuing effort by government, industry, and individuals to maintain and improve aviation safety. The ASRS collects voluntarily submitted aviation safety incident/situation reports from pilots, controllers, and others. ASRS uses the information it receives to promote aviation safety through research, reporting and alerting.
  - **FAA Aviation Safety organization Voluntary Safety Reporting Program (VSRP)**
    The VSRP provides those who work in the FAA's Aviation Safety organization the ability to report confidentially any safety concerns without fear of punitive action. The FAA's Aviation Safety workforce is composed of about 7,700 professionals who provide oversight of airlines, manufacturers, maintenance providers, aviation medical examiners and flight crews.

[3] The United States has established procedures to develop and process information from aggregated data sources, which are used within the U.S. safety system to monitor trends in aviation safety and identify any safety issues and address them in the most appropriate ways. https://www.faa.gov/sites/faa.gov/files/about/initiatives/sms/reference_library/AVS-210503-001-Supporting-US_State_Safety_Program.pdf



FAA operational safety initiatives contribute to improving or maintaining current safety levels by providing information, guidance, and resources to aviation personnel and the traveling public (continued from pg. 13):

- **Runway Safety**
  - **FAA Runway Incursion Mitigation Program and Runway Safety Statistics**
  - **Runway Excursions**
  - **FAA Takeoff and Landing Performance Assessment**
- **Aircraft Cargo Safety and Air Carrier Cargo Safety**
- **Illegal Charters**
- **Cabin Safety**
- **UAS Data Exchange (LAANC) and B4UFLY App**
- **Notices to Airmen Modernization**
- **Boeing 737 MAX Reading Room**

Operational safety initiatives are continually evolving in response to safety needs, priorities, and opportunities, and the FAA regularly releases new information and resources.

ADDITIONAL U.S. GOVERNMENT OPERATIONAL SAFETY INITIATIVES

- Safety recommendations are one of the most important products from NTSB investigations and are addressed to the organization best able to address the safety issue(s). Broader safety issues are frequently examined through initiatives such as NTSB special investigations and special studies, both of which typically also result in the issuance of safety recommendations. NTSB also generates safety alerts to bring attention to specific issues and provide practical suggestions as necessary.
- NASA leads an effort to evolve SMS for increasingly autonomous aviation operations. This new concept is called an In-Time Aviation Safety Management System (IASMS). This IASMS development is coordinated within NASA's System-Wide Safety project.
- The National Oceanic and Atmospheric Administration National Weather Service (NWS) is transforming its operations to help America respond to impactful and extreme water, weather, and climate events by becoming a Weather-Ready Nation. Offices provide forecast information in a way that better supports emergency managers, first responders, government officials, businesses and the public – including aviation stakeholders – to make fast, smart decisions to save lives and property and enhance livelihoods. NWS supports the FAA on-site, providing up-to-date weather forecasts and impact-based decision support services to support our aviation industry.

DATA, STATISTICS, AND REPORTS

Regularly updated information about aviation accidents and incidents and other reported events that occurred in the United States and that involved aircraft registered in the United States engaged in commercial air transport and aircraft involved in general aviation, is available from the following resources:

- **FAA Accident & Incident Data**
- **Aviation Safety Information Analysis and Sharing (ASIAS) System Preliminary Accident and Incident Reports**

The FAA also reports this information annually against established performance targets, as described in Monitoring implementation.

- **NTSB Data & Stats**
  - Aviation Accidents
  - Annual Review of Aircraft Accident Data
  - Accident Docket Search
  - Aviation Accident Reports
  - Safety Research Reports

OTHER SAFETY PRIORITIES

In addition to focusing on continually reducing the fatality risk, the United States identifies and pursues other safety priorities important to providing the safest and most efficient aerospace system in the world now and in the future. These are given priority in the NASP since they are aimed at enhancing and strengthening U.S. safety oversight capabilities and the management of aviation safety in the U.S. National Airspace System and may encompass organizational improvements, emerging issues, and other areas of interest. The following resources provide information about additional U.S. aviation safety priorities:

DOT AND FAA PRIORITIES

The Strategic Plans described in A strategic approach to managing aviation safety outline strategic safety priorities and key activities for the DOT and FAA. Additional resources include:

- **DOT Safety Programs and Projects**
- **FAA Advisory and Rulemaking Committees and Topics**
- **NARP**

The NARP provides an overview of the FAA's research and development plans over the next five years, highlighting near-, mid- and far-term research.

- **FAA Air Transportation Centers of Excellence**

Safety promotion

Safety promotion programs such as the following are important mechanisms to actively communicate safety information:

- **FAA Safety Team**
    - DronePro Program
- **FAA Safety Briefing**
- **Hazardous Materials Safety**
- **Laser Safety**

Integration

The FAA works to enable the safe integration of airspace users into the U.S. National Airspace System through activities and capabilities such as:

- **FAA UAS Programs, Partnerships, and Opportunities**
- **FAA Commercial Space Transportation Space Data Integrator**

> The United States identifies and pursues other safety priorities important to providing the safest and most efficient aerospace system in the world now and in the future.



MONITORING IMPLEMENTATION

A fundamental element of any system that seeks continuous improvement is monitoring the implemented steps that produce the intended results: safety, quality, efficiency, etc. Monitoring implementation creates a feedback loop through which concerns or deficiencies are identified via the collection of objective evidence, then assessed for their potential impact on system function, and mitigated through corrective actions.[4] This high- level concept is reflected within national laws, ICAO activities, and ICAO programs.

The United States continuously monitors the performance of the U.S. National Airspace System. Annual performance planning and reporting ensures monitoring and accountability against established metrics and targets. U.S. Government departments and agencies document their annual planning, monitoring, and reporting in publicly available business plans, and performance and achievement reports. Figure 7 presents a typical annual planning, monitoring, and reporting cycle.

Annual plans and reports encompass a variety of aviation safety goals, priorities, enhancements, and initiatives and provide relevant up-to-date information on progress made. Progress toward meeting annual goals and targets is also documented.

DOT AND FAA

- DOT Budget and Performance Documents
- FAA Plans and Reports
  - **Portfolio of Goals, FAA Business Plans, FAA Performance and Accountability Reports, and UAS Accomplishment Reports**

These annual plans and reports, which are updated regularly, include the work planned and accomplished toward the implementation of the DOT and FAA Plans discussed in a strategic approach to managing safety.

> The United States continuously monitors the performance of the U.S. National Airspace System.

NTSB

- NTSB Strategic Plans and Reports

The NTSB's annual strategic performance plan outlines its strategies to achieve agency priorities, promote organizational change, and improve agency performance. It outlines and links to goals and objectives for the fiscal year through the use of performance metrics and targets. The strategic performance report provides a summary of progress and accomplishments toward meeting annual goals and objectives. It relies on routine collection and analysis of performance metric data to ensure performance outcomes and decisions are actively managed.

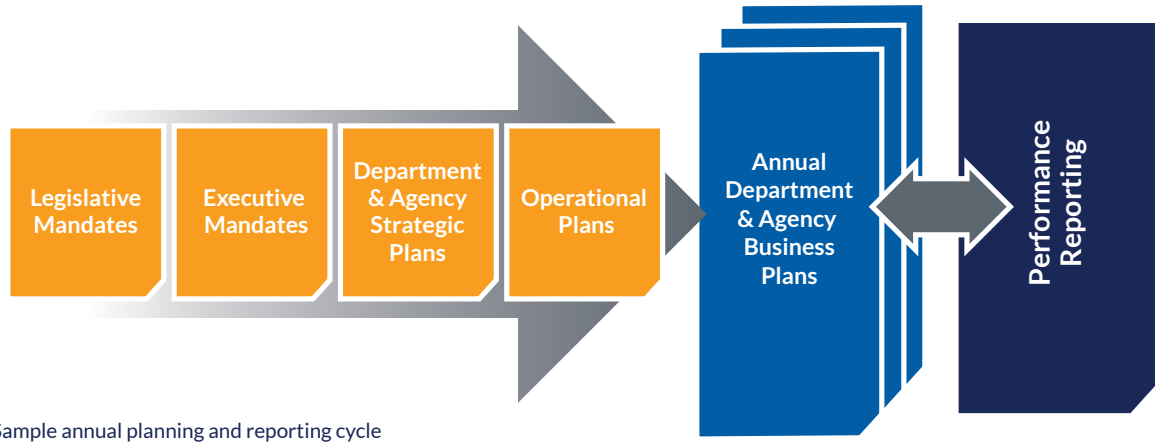


Figure 7: Sample annual planning and reporting cycle

[4] U.S. Government agencies are also subject to independent audits and investigations by other U.S. Government organizations, such as the Government Accountability Office.

CONTACTS

Stay connected by engaging with the FAA on social media platforms and browsing the agency Newsroom

Any questions regarding the U.S. NASP and its content may be addressed to the following:

Aviation Safety International Division
9-AVS-INTL@faa.gov



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Federal Aviation Administration

Federal Aviation Administration
800 Independence Avenue, SW
Washington, DC 20591
www.faa.gov

Federal Aviation Administration

AVIATION SAFETY

WORKFORCE PLAN

FY 2025 – FY 2034



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Executive Summary

The Federal Aviation Administration's (FAA; Agency) annual Aviation Safety (AVS) Workforce Plan outlines the staffing plan for existing and future personnel in AVS. The Fiscal Year (FY) 2025 issue of the AVS Workforce Plan focuses on those mission-critical occupations directly impacting public safety.

The AVS Workforce Plan is divided into four sections. The first section provides a description of the AVS workforce, delineating between mission-critical occupations for Public Safety and mission-support safety-critical enablers. The second section explains the AVS mission, highlighting major safety objectives. The third section describes modeling for the workforce forecast, using data-driven models to anticipate the needs between FY 2025 and FY 2034. The fourth section explores the challenges of attracting qualified talent while competing with industry to hire from a shared pool of candidates. The plan further describes initiatives to recruit, develop, maintain, and retain mission-critical technical experts directly impacting public safety.

In response to the January 2024 door plug incident on Alaska Airlines Flight 1282, the FAA took several actions including increasing our Aviation Safety Inspector (ASI) staffing to enable increased on-site presence at manufacturing and production sites, increasing product audit frequency and targeted surveillance activity, and embedding ASIs within various manufacturing and production activities to provide early feedback on initiatives and monitor progress. The FAA also established frequent, recurring meetings amongst senior leadership to review Boeing's progress, challenges, and issues, and established a standard set of metrics that are reviewed at regular intervals for monitoring the health of Boeing's production and quality systems. The FAA continues to actively monitor and support Boeing's progress on Safety Management System (SMS) implementation, as required by the new part 5 SMS rule, and the recommendations from the Aircraft Certification, Safety, and Accountability Act (ACSAA), 2020 (Public Law [Pub. L.] 116-260), Section 103 Expert Panel.

While the general aviation accident rate continues to decrease, recent aviation incidents—one of which is the country's deadliest aviation incident since 2001 and included a major commercial air carrier—are a stark reminder of the enormity of the FAA's safety mission. AVS is dedicated to continuously improving safety and efficiency in line with the FAA's mission to provide the safest and most efficient airspace system in the world.

Introduction to the AVS Workforce Plan

To meet the requirements of the Consolidated Appropriations Act, 2024 (Pub. L. 118-42), the FAA prepared this 18th annual update to the AVS Workforce Plan. This plan includes information of interest to key external stakeholders, such as the congressional Authorization and Appropriations Committees and the White House. It includes staffing estimates for ASIs and Aviation Safety Engineers (ASEs), which comprise 65 percent of the AVS workforce and 92 percent of AVS Public Safety staff. This FY 2025 report accounts for aircraft fleet changes; operations forecasts; inspector and engineer attrition; and other factors.

As of September 2024[1], AVS had approximately 7,700 professionals who make up the AVS workforce and contribute to ensuring the National Airspace System (NAS) remains the safest in the world. The NAS is the world's most complex airspace, encompassing commercial and general aviation, as well as the expanding drone and commercial space launch sectors.

With the FAA safety mission constantly in mind, everything AVS does across the aviation lifecycle ensures that every entity certified to operate within the NAS meets the required aircraft design and operational safety standards.

This Workforce Plan is designed to strengthen the recruitment, training, and professional development of mission-critical activities in AVS. Successful delivery on the aerospace safety mandate demands we hire and retain the right people, with the right skills, at the right time, with the ability to address risk proactively and preemptively throughout the NAS.

[1]Full-time Permanent, Operations Funded positions as of Pay Period 20 ending on September 21, 2024.

SECTION 1
UNDERSTANDING THE AVS WORKFORCE

This section of the plan describes AVS's staffing categories, organizational structure, and occupations that enable mission-critical execution.

Staffing Categories

The AVS workforce is comprised of Public Safety and Mission Support staff.

1. Public Safety Staff

The Public Safety staffing category (70 percent of the AVS Operations workforce) includes key positions where the duties have a direct operational impact on public safety. While ASIs and ASEs comprise 92 percent of this category and are the focus of this workforce plan, other critical positions—medical examiners, for example—while smaller in number, also play a critical role in keeping the public safe.

The responsibilities of Public Safety staff include, but are not limited to:

- Monitoring and enforcing industry compliance with safety regulations through inspections, data analysis, and risk management;
- Certifying aviation personnel, airlines, repair stations, training centers, and other aviation entities;
- Issuing and overseeing design approvals, production approvals, and airworthiness certificates, and executing continued operational safety processes for aircraft, aircraft alterations, equipment, and avionics;
- Investigating aviation accidents and incidents;
- Overseeing the FAA Air Traffic Organization (ATO) SMS;
- Overseeing and monitoring AVS delegation programs; and
- Overseeing and monitoring new entrant integration into the NAS.

2. Mission Support Staff

Mission Support staff (30 percent of the AVS Operations workforce) provide specialized support to enable Public Safety staff to perform their jobs efficiently and effectively. Mission Support staff are essentially safety-critical staff enablers and force-multipliers that generate outsized effects of the staffed workforce. This category includes functions requiring specialized skills, knowledge, and advanced training, such as operations research, data science, analytics, computer science, aviation systems expertise, statistics, chemistry, health technicians, foreign affairs, and economists. It also includes professional positions that provide expert-specific support, including technical expertise, professional guidance, expert advice, and specialist assistance in areas such as research, finance and budget management, international outreach, communications, people management, business planning, and project management. Administrative and clerical positions round out this category.

Organizational Structure

The AVS organization, one of the five FAA lines of business, is structured into business units called services and offices with physical locations in the United States and internationally. An Executive Director, or equivalent head, leads each service and office. The Executive Directors and their respective deputies make up the AVS Management Team. The AVS Management Team is led by the Associate Administrator for Aviation Safety.



Services

- Aircraft Certification (AIR)
- Air Traffic Safety Oversight (AOV)
- Flight Standards (FS)



Offices

- Aerospace Medicine (AAM)
- Quality, Integration, and Executive Services (AQS)
- Rulemaking (ARM)
- Unmanned Aircraft Systems Integration (AUS)
- Accident Investigation and Prevention (AVP)
- Organization Designation Authorization (ODA)

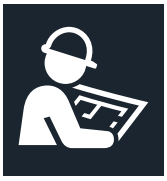
Occupational Series Within the AVS Workforce

This section describes the occupational series that comprise the majority of the AVS workforce. An occupational series is a subdivision of an occupational group or job family consisting of positions similar to a specialized line of work and qualification requirements. The two largest public safety occupational series within AVS are ASI and ASE.



Aviation Safety Inspector

An ASI is responsible for the certification and surveillance of air carriers, general aviation, aircraft product and part manufacturers, and air operators in accordance with Title 14 of the Code of Federal Regulations (CFR). Major ASI responsibilities include administering, investigating, and enforcing safety regulations and standards for the production, operation, maintenance, and modification of all aircraft flying today. ASIs work in four specialty areas: avionics, manufacturing, maintenance, and operations.



Aviation Safety Engineer

An ASE is responsible for applying engineering knowledge and experience in specific disciplines such as airframes, systems and equipment, propulsion, and flight tests. Major ASE responsibilities include administering safety standards for the design and certification of aeronautical products; evaluating designs for compliance with safety regulations and standards; and ensuring the continued operational safety of aircraft, engines, and propellers.

SECTION 2
ADVANCING THE SAFETY MISSION

One Mission, Many Contributors

The AVS statutory mission is to provide the safest, most efficient aerospace system in the world through a data-driven, risk-based systems approach for standards, certification, and oversight. The scope of responsibilities required to keep the NAS operating safely and efficiently requires AVS to be at the forefront of aerospace technology and human factors. This section describes some of the many tools that AVS employs to help keep the NAS operating safely.

AVS employs many tools to help keep the NAS operating safely, including:

Data-Driven Risk-Based Decision-Making

employs the active use of safety and performance data using methods to assess safety risk and existing safety performance controls. AVS also leverages leading commercial software platforms for data-driven operations and decision-making and enhancing data ecosystems that empower users, collaboration, and compound value.

Safety Management System (SMS)

is a formal, top-down, organization-wide approach to managing safety risk and assuring the effectiveness of safety risk controls. It includes systematic procedures, practices, and policies for the management of safety risk. SMS consists of four primary components covering Safety Policy, Safety Risk Management, Safety Assurance, and Safety Promotion.

The Compliance Program

is a risk-based approach to ensure industry maintains compliance with regulations by proactively identifying and mitigating problems. The Compliance Program focuses on using the most effective means to fix problems before they cause an accident or serious incident. While recognizing that most operators or manufacturers voluntarily comply with the core principles of safety, the Compliance Program regards intentional noncompliance as the greatest safety risk, which requires proactive, strong enforcement.

Systems Modernization

ensures FAA systems keep pace with technological advancements, enabling the FAA's infrastructure and processes to remain up to date and capable of handling the demands of an evolving aerospace industry. It involves upgrading and enhancing legacy systems, infrastructure, integrating advanced surveillance tools, case management technologies, and leveraging automation, as well as artificial intelligence. By embracing these advancements, the FAA can enhance the accuracy, capacity, and sustainability of the aerospace system.

Information Sharing Programs,

such as the Aviation Safety Information Analysis and Sharing system and AIR's Product Data Analytics platform, leverage data and information sources across government and industry, including voluntarily provided safety data, to monitor known risks, evaluate the effectiveness of deployed mitigations, and detect emerging risks. Collaboration with union partners is a critical component to the success of voluntary safety information sharing and safety.

Government–Industry Cooperative Efforts,

such as the Commercial Aviation Safety Team and General Aviation Joint Safety Committee, use integrated, data-driven strategies to reduce accidents and fatality risk. The success of these collaborative organizations is driven by the dedicated efforts of the respective members to proactively adopt mitigations to improve safety.

International Cooperation and Collaboration

enhances safety by influencing regional and global alignment and increasing transparency, compatibility, and harmonization of various global approaches to aviation safety. International cooperation and collaboration include mechanisms such as the effective use of bilateral aviation safety agreements, technical assistance, and provision of training and workshops, as well as taking an influential role in the International Civil Aviation Organization (ICAO).

Certification and Safety Oversight Reform

A foundational component of safety is the commitment to continuous improvement. The FAA is driving greater transparency, collaboration, and accountability across the Agency with its regulated parties. As part of this, the FAA is committed to an integrated approach to implementing all the requirements of ACSAA, as well as the recommendations from investigations and independent reviews related to the 737 MAX accidents, including the door-plug incident on January 5, 2024.

In the past year, the FAA satisfied several requirements of ACSAA, including issuing an update to the systems safety rule for transport category aircraft, publishing a final rule that requires a SMS for design and manufacturing organizations, Part 135 operators, and Air Tour Operators, and receiving and acting on findings and recommendations included in the Section 103 ODA Expert Panel final report.

In addition, the ODA Office chartered an Interference Review Team, which includes representatives from ODA, AIR, and FS, to review allegations of interference with the performance of authorized functions by ODA Unit Members. This team will ensure a consistent application of the Interference Notice requirements across AVS, and feedback from the team's review will inform future outreach to ODA holders and future policy changes.

Conclusion

AVS strives to uphold the Agency's safety standards through transparency and accountability, regardless of the challenges posed by our complex and dynamic aviation environment. Investing in skilled people and creating a safe and professional workplace ensures AVS can meet these challenges through a unified approach to managing risks and conducting oversight. The FAA's passion for aviation safety is the driving force for all we do, with AVS services and

offices working interdependently with each other and with external stakeholders toward a shared vision for delivering results for the AVS statutory safety mission.

Delivering Results

The numbers in Figure 1 illustrate the broad scope of AVS's work. Beyond the number of registered aircraft, active pilots, designees, airmen medical examinations, and companies with drug testing programs are tangible factors that enhance safety in our complex system. The scope of work depicted also extends to our international collaboration with the 193 Member States in ICAO.

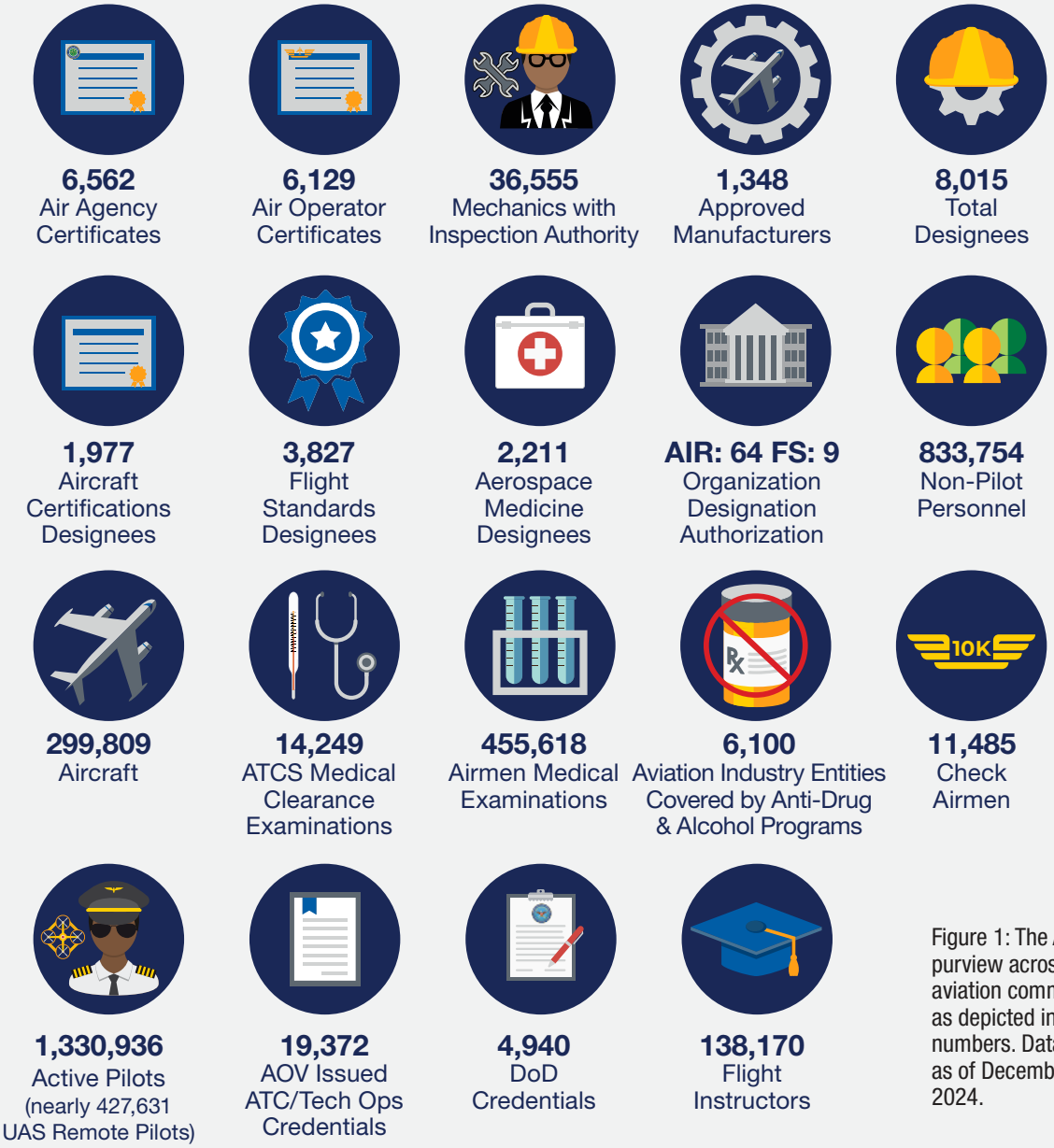


Figure 1: The AVS purview across the aviation community, as depicted in numbers. Data is as of December 31, 2024.

AVS Strategy for Effective Use of Resources

Maintaining staffing levels with skilled and experienced personnel who have completed all onboarding training and are positioned to effectively deliver against job requirements is a delicate balance of sustaining a primed pipeline while anticipating attrition. Our commitment to efficiently detecting and addressing the shifting demands of the aviation safety system requires a strategic approach to managing our staffing numbers across the AVS enterprise.

AVS uses risk-based analysis and decision-making to direct resources to statutory mission-critical needs. In addition, AVS is working to evolve workforce modeling to enable sensitivity analysis across a greater breadth of variables, allowing for improved strategic planning.

SECTION 3
FORECASTING AVS WORKFORCE NEEDS

ASIs and ASEs constitute 65 percent of the positions within AVS. As a result, forecasting and modeling concentrate on assessing the requirements for these positions. The AVS staffing model, in conjunction with more targeted assessments by each organization, assists the FAA in identifying staffing requirements for ASIs, ASEs, and medical staff.

The workforce continues to evolve as advances are made in the aviation safety environment. Using and improving established methods of workforce forecasting and modeling will ensure we continue to meet our obligations to promote and improve safety in the NAS.

AVS Staffing Analytics

AVS uses a data-driven model to perform the initial analysis of our staffing needs. The model is comprised of specialized modules that assess ASI and ASE staffing requirements within AVS. The model uses data inputs, such as historical work activities and work hours, as a baseline for future staffing requirements. AVS continues efforts to improve the staffing tool to better position the model for the future.

Data Quality

As with any software tool, the quality of analytical output is only as good as the data input. AVS has applied significant effort to improve the data quality of workload and work-hour tracking systems. With improved data, analysts have been able to:

- Identify and review actual working time for various ASI and ASE activities;
- Categorize activities;
- Identify and quantify the potential change in activities associated with staffing increases or shortfalls;
- Examine the relationship between activity categories and industry growth;
- Research training times for employees at different experience levels;
- Compare workload recorded in various oversight applications (i.e., the Safety Assurance System);
- Examine the year-over-year change in time spent per activity and estimate future workload;
- Quantify and project all work hours, including those spent on training, administrative activities, leave, and travel; and
- Examine the workload impact associated with designee oversight.

Historical Work Activities and Work Hours

The staffing tool modules all share the same general structure. Activities and work hours are classified and quantified by work type. The average time per activity—referred to as the nominal time—is calculated annually by using hours recorded in the FAA Labor Distribution and Reporting system and other appropriate oversight activity tracking systems.

Forecasting

The number of activities forecasted for the next ten years is based on their relationship to drivers of demand. Where possible and applicable, FAA-produced forecasts are used to predict workload changes associated with industry growth. These forecasts are combined with field-level knowledge of expected workload changes.

The required modeled workforce is then calculated by multiplying the nominal time per activity by the number of forecasted activities for each year for ten years. The model determines the staffing levels that will be required if the same level of effort needed to support current activities is forecasted based on the growth or contraction of the current industry. The model results are reviewed and adjusted, if necessary, based on subject matter expertise to account for growing segments of industry, such as drones, and the implementation of new automation applications.

The resurgence of the travel industry, further exacerbated by hiring in the rapidly growing advanced air mobility segment of the aviation industry, continues to sustain a highly competitive environment for talent acquisition for aviation organizations, including AVS. It is reasonable to expect such hiring pressures to continue in the coming years, thus presenting AVS with more challenges in hiring technical experts.

SECTION 4
LOOKING FORWARD

AVS fosters the right balance between operating efficiently, meeting its strategic priorities, and consistently delivering high-quality products and services while effectively managing resources. Several key drivers will continue to shape the AVS workforce over the next decade.

Rapid technological advancements, the emergence of new types of aerospace operations, the constant evolution of the regulatory landscape, the growth of the aerospace industry itself, and latent system risks are compelling us to continuously assess where expertise is needed. This enables AVS to mature into a more innovative, focused, and adaptable organization that can tackle the challenges of the future.

AVS must keep up with the rapidly unfolding technological advancements in aviation. The introduction of advanced materials for aircraft structures, systems, alternate fuels, airports, and airspace; the integration of innovative electric and hybrid systems; and the impact of artificial intelligence, machine learning, neural networks, and machine vision all pose staffing challenges that AVS must address. These dynamic drivers of change necessitate advanced expertise in both legacy and new concepts in engineering, mathematics, science, and safety management.

To address these anticipated workforce needs, AVS forecasts staffing needs, estimated levels of attrition, and planned hiring over the next ten years (FY 2025 to FY 2034). Figures 2 and 3 present detailed views of forecasted ASIs and ASEs.

ASI[2] Forecast with Planned Hires and Estimated Losses

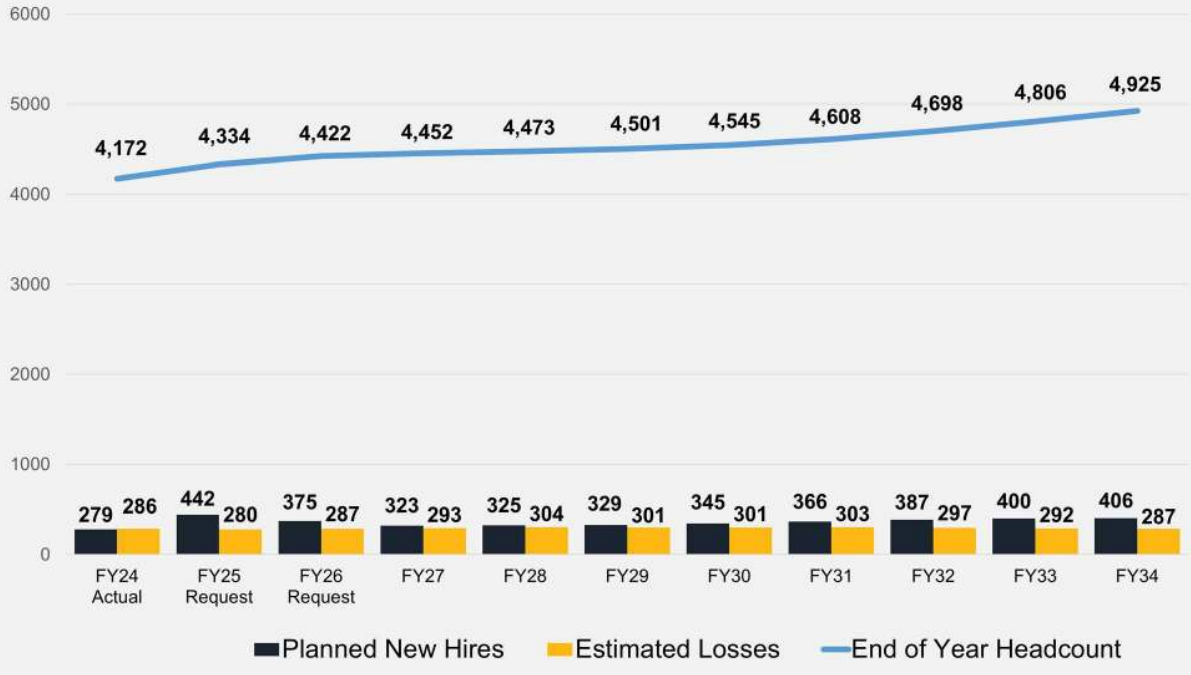


Figure 2: FY 2024 actual staffing level, actual hires, and actual losses, as well as planned staffing levels, planned hires, and estimated losses for FY 2025 through FY 2034 for all ASIs in AVS

[2]ASIs are 1825 occupational series in FS and AIR

ASE[3] Forecast with Planned Hires and Estimated Losses

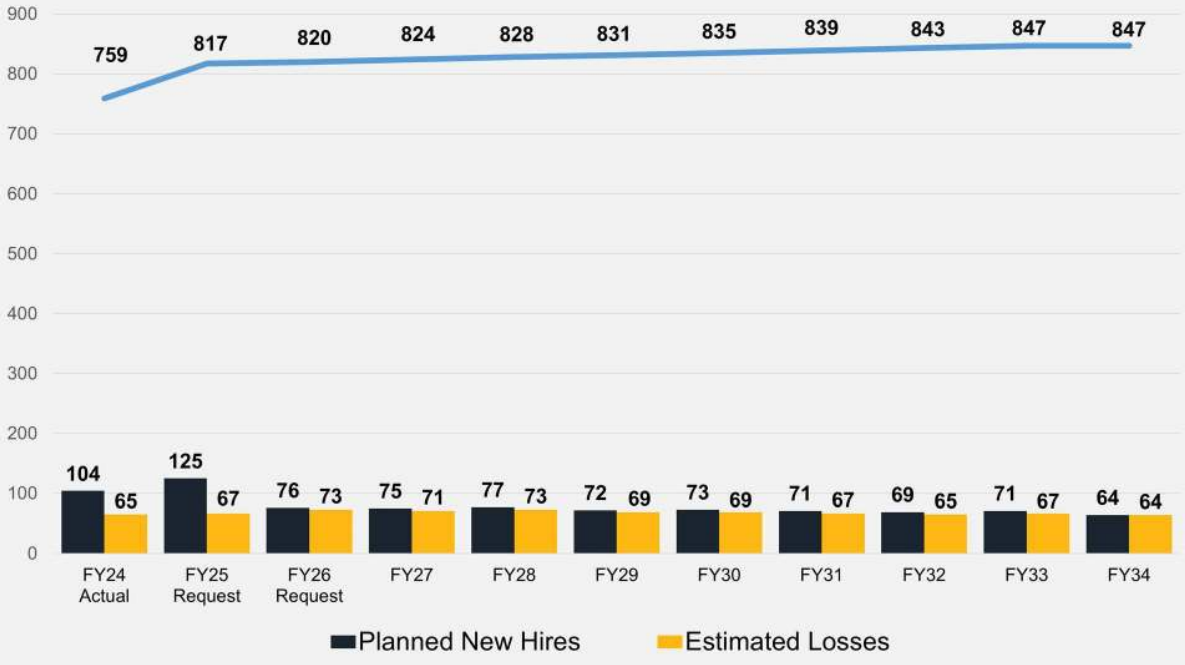


Figure 3: FY 2024 actual staffing level, actual hires, and actual losses, as well as planned staffing levels, planned hires, and estimated losses for FY 2025 through FY 2034 for all ASEs in AVS

[3]ASEs include all 800 (8XX) occupational series in AIR

ASIs and ASEs are in high demand, making for a challenging hiring environment. In FY 2024, AVS hired 279 and lost 286 ASIs, respectively, resulting in a relatively flat ASI headcount year over year. In FY 2025, AVS plans to hire aggressively (442 ASIs) while maintaining historical attrition rates (295 ASI average attrition predicted over the ten-year forecast period).

Planned ASE hiring in FY 2025 is also higher than FY 2024 levels, increasing from 104 ASEs in FY 2024 to 125 in FY 2025 (20 percent increase). Hiring is lower in later years, averaging 77 ASEs over the ten-year period. Attrition, like ASIs, is predicted to remain at historical levels and averages 69 ASEs over the same ten-year period.

A further breakdown of non-supervisory ASIs by functional area is provided in Table 1.

Non-Supervisory ASIs by Functional Area	FY24 Actuals on Board	FY25 Forecast	FY26 Forecast
General Aviation Safety Assurance	1,599	1,636	1,642
Air Carrier Safety Assurance	989	983	977
Other Manufacturing	186	192	199
Large Transport Manufacturing	49	51	53

Table 1: The number of non-supervisory ASIs by functional area, comparing the actuals on board at the end of FY 2024 to the modeled staffing projections for FY 2025 and FY 2026

Recruiting and Retaining a Skilled Workforce

AVS requires a skilled workforce to deliver on the AVS mission. Our inspectors, engineers, and medical officers, who make up a large part of the workforce, must have significant experience to meet the qualification standards.

As a result of workforce needs, the average age of AVS employees when hired is 43, and the current average age of AVS employees is 54. There is no mandatory retirement age for AVS employees, and attrition analysis shows that a low percentage of employees retire immediately upon becoming eligible. While the FAA desires to retain employees who satisfactorily perform mission-critical work, regardless of their age, over the last two fiscal years, the average age at retirement for Public Safety AVS personnel was 67. Figure 4 shows the historical rates of retirement with respect to the year of eligibility.

Retirement Behavior Profile

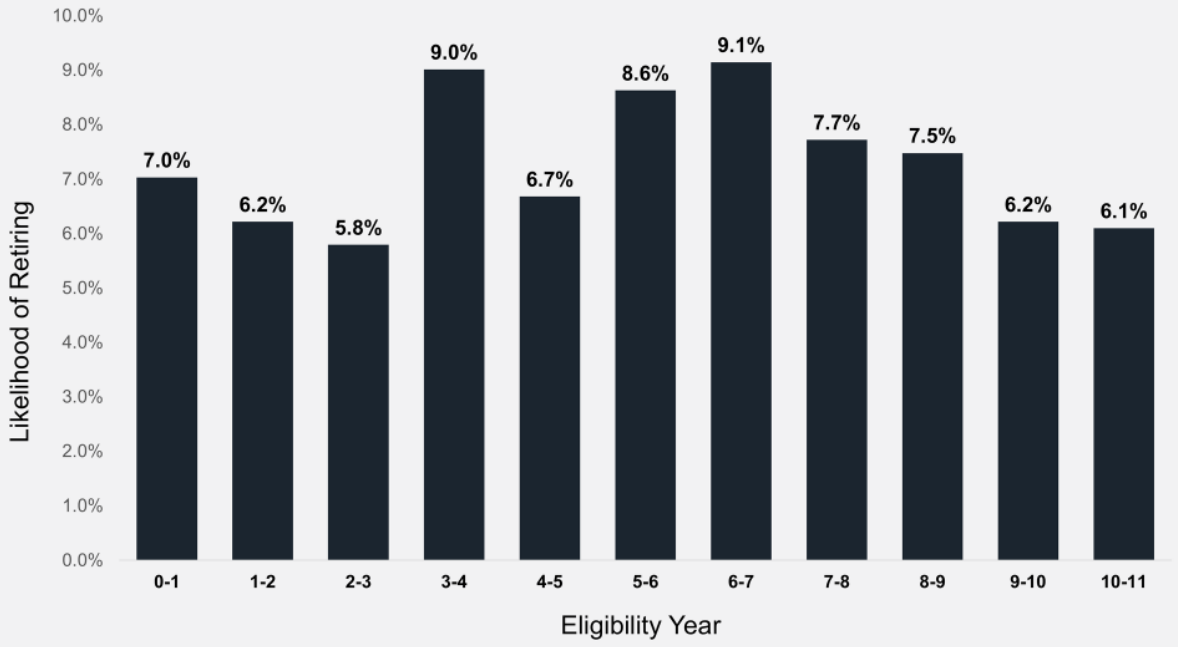


Figure 4: Forecasted percentage of AVS employees expected to retire during each year of retirement eligibility

In FY 2025, AVS will leverage knowledge gained through federal best practices for workforce development by assessing talent readiness, career desire, and development gaps while mitigating the potential loss of talent and experience. AVS continues to focus on building and maintaining a pipeline of skilled employees, trained and prepared to take on increasing responsibility using recruitment, retention, and development initiatives, as detailed in the following sections.

Recruitment and Outreach

AVS must compete with private industry and other government agencies to recruit and retain experts from a specialized talent pool. The FAA recognizes the ongoing challenge of identifying and attracting talent into key safety positions and is pursuing a number of initiatives, activities, and incentives to do so.

AVS has a robust recruitment strategy to reach skilled talent. The FAA's recruitment efforts to attract experienced inspectors, engineers, and medical officers include promoting the AVS hiring incentives and flexibilities—including On-the-Spot (OTS) hiring authority, relocation incentives, and the Medical Officers Premium Pay incentive—at professional conferences, career fairs, aviation events, and airshows. Another avenue is the use of social media. Both practices are used to reach a greater pool of experienced applicants nationwide.

In FY 2024, AVS gained approval to fill non-medical Flight Oversight ASI positions. These positions meet the needs of mission-critical ASI Operations vacancies that do not require operation of an aircraft and have been extremely difficult to fill. We increased the size of the applicant pool by recruiting experienced airmen who no longer possess a second-class medical.

Over the last fiscal year, AVS participated in 30 in-person and virtual recruitment events, reaching 1,700 potential candidates to support the hiring of mission-critical, Public Safety positions, spanning all levels of required experience, with candidates at varying levels of their professional careers.

Currently, the primary recruitment and hiring vehicle AVS uses is the Office of Personnel Management's automated hiring system, USAJOBS. AVS also uses applicable recruitment resources like the On-the-Spot hiring authority to expedite the process of hiring ASIs and ASEs, as well as medical officers.

AVS continues to use the FAA's Managerial and Employee Leadership Competency Profiles to correlate and define the required core competencies AVS needs for interpersonal, business, and specific technical skills. This model allows us to compare the competencies of employees against the requirements of positions across AVS.

Retention

We strive to be a workplace of choice to ensure that AVS retains talented employees. AVS will continue to promote a professional and safe work culture that encourages innovation, empowerment, and growth. AVS senior leaders actively embrace their roles by promoting employee engagement through numerous interactions, education, and advancement opportunities, and idea and knowledge-sharing efforts that join pertinent information with employee engagement.

Compensation Incentives

To better compete with aviation industry recruitment, AVS offers a number of incentives, such as leave enhancements (included in job announcements), new hire pay flexibilities, and degree completion programs.

- AVS offers a $10,000 relocation incentive (with a one-year service agreement) to airworthiness ASI applicants moving more than 100 miles to their new duty location who accept hard-to-fill positions. Hard-to-fill positions are those that have taken longer than six months to fill from the date the vacant position was identified and approved.
- AVS also offers a $10,000 relocation incentive (with a one-year service agreement) to all Operations ASI applicants moving more than 100 miles to their new duty location, as well as higher entry-level employee salaries (Step 5 within the qualified grade level). In addition, AVS offers a new $25,000 recruitment incentive (with a three-year service agreement) to Operations ASIs who accept hard-to-fill positions.
- Medical officers (series 0602) in the FAA may receive the Medical Officers Premium Pay incentive up to $30,000 annually, divided into biweekly payments, as a means of addressing recruitment and retention issues for highly skilled and specialized Medical Officers and for positions with a history of recruitment and/or retention problems.

AVS continues to evaluate the use of incentives for other high-demand skill sets needed for mission-critical positions.

Workforce Training and Development

AVS regularly assesses the skills and competencies we rely on to meet future needs, and where necessary, AVS locates or develops requisite staff and training resources. Understanding the FAA's role as a regulator to manage risk and provide safety oversight, AVS encourages professional development opportunities and provides employees with training. AVS training includes synchronous web-based virtual learning, where students and instructors are present at the same time; asynchronous web-based training, which is self-paced; and traditional classroom-based instruction.

Initial Technical Training

Training provided to new Public Safety staff varies across the different services and offices and ranges from one to 15 weeks, depending on specialty. AVS requires all new staff to attend onboarding training to introduce and familiarize employees with the AVS statutory safety mission and values. Employees with other technical specialties in AVS, such as drug abatement inspectors and air traffic safety inspectors, receive structured, initial technical training specific to their field of expertise.

Additional/Recurrent Technical Training

After employees complete the initial technical courses, AVS identifies additional training needs during annual calls for training requirements. These requirements are role-based and focused on competency. Supervisors work with their employees to determine what kind of training the employees need and when they need it. Inspectors, designee advisors, and flight test pilots are required to receive initial and recurrent training tailored to their particular job responsibilities.

Supervisors and their employees continually review training requirements to keep pace with changes in the aviation industry.

Funding

Despite ongoing innovative efforts, staffing remains the AVS organization's largest cost. While personnel compensation and benefits consumed 84.7 percent of the AVS FY 2024 actual expenditure, continuing to support these costs—while exploring ways to reduce them—will be critical to the long-term sustainability of operations and ensuring the safety of the NAS. AVS requires specialized training and equipment as well as supplies, travel, and other non-payroll funding to perform the organization's statutory safety mission effectively. AVS needs to maintain an agile workforce that is not geographically constrained; is reliant on tools, equipment, and technology to operate in dispersed work areas; and is both trained and equipped to carry out the organization's statutory safety mission.

Personnel Compensation and Benefits (PC&B) and Non-PC&B Shares

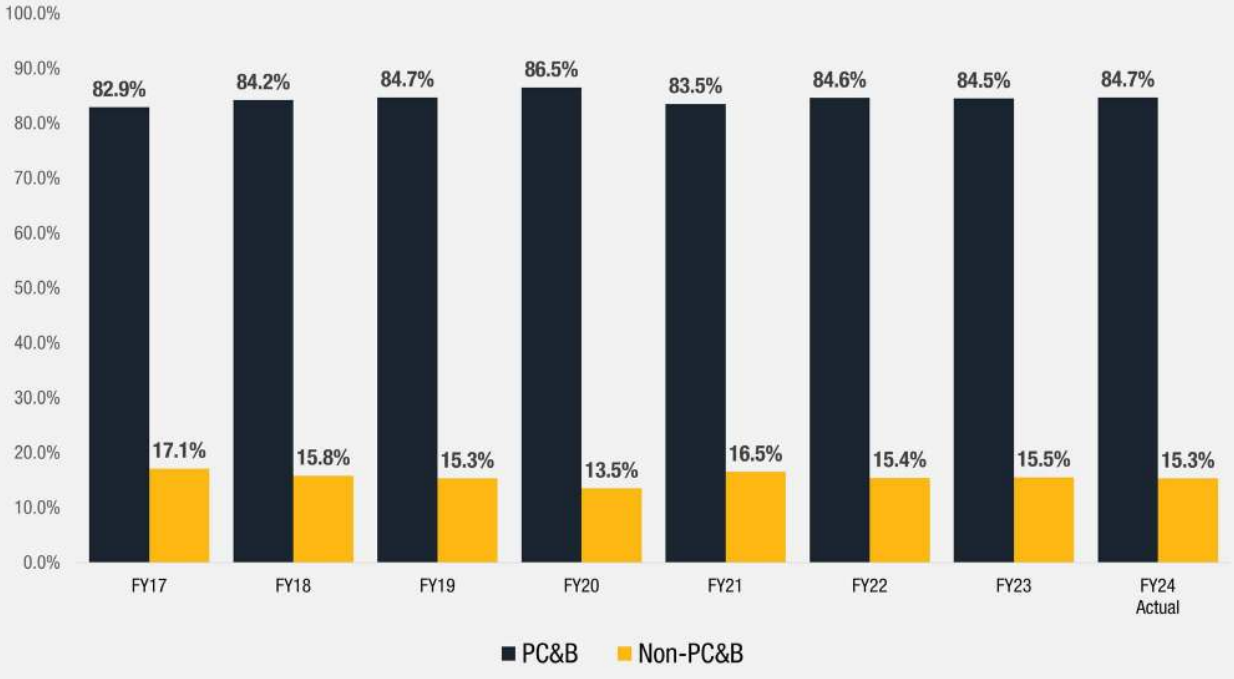


Figure 5: Percentage allotments for PC&B, FY 2017 – FY 2026



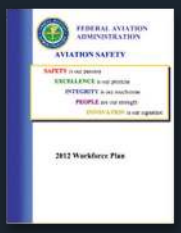
FY 2009



FY 2010



FY 2011



FY 2012



FY 2013



FY 2014



FY 2015



FY 2016



FY 2017



FY 2018



FY 2019



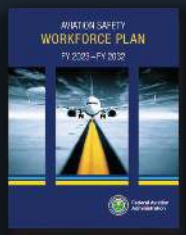
FY 2020



FY 2021



FY 2022



FY 2023



FY 2024

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FAA Releases Updated Air Traffic Controller, Safety Inspector Hiring Plans

Thursday, August 7, 2025

Plans provide blueprints for recruiting the best and brightest

WASHINGTON, D.C. — U.S. Transportation Secretary Sean P. Duffy released the FAA's updated plans detailing how it will hire, train, and develop the best and the brightest air traffic controllers and aviation safety personnel. The plan accounts for ongoing innovation in our skies, including aircraft with innovative electric and hybrid systems, increased drone presence, growth in commercial space travel, and technology advancements such as artificial intelligence.

By the numbers: Under the latest Air Traffic Controller Workforce Plan, the FAA anticipates hiring at least 8,900 new air traffic controllers through 2028, including 2,000 in 2025. The Aviation Safety Workforce Plan calls for hiring about 4,600 safety inspectors and engineers through 2034.

"Under President Trump's leadership, the USDOT isn't just solving today's problems. By looking ahead and planning for the future of transportation, we can ensure America remains the global aerospace leader," said **U.S. Transportation Secretary Sean P. Duffy**. *"Putting the best and brightest in our towers and in the field will allow us to make flying safer, reduce delays and cancellations, and bring about a Golden Age of travel."*

"The aviation ecosystem is rapidly evolving and the FAA must adapt to unprecedented changes," said **FAA Administrator Bryan Bedford**. *"Our success depends on highly skilled and dedicated air traffic control and aviation safety inspector workforces and growing both is a top priority for the FAA."*

Air Traffic Controller Hiring

Groundbreaking initiatives: Under the leadership of Transportation Secretary Sean P. Duffy and Deputy Administrator Chris Rocheleau, the FAA has taken unprecedented action to speed up air traffic controller hiring and training. During a supercharged hiring initiative in March, the FAA streamlined the process while qualifying and referring more than 8,320 candidates to the controller aptitude exam. While it previously took more than 13 months from application to admission into the FAA Academy, the best and brightest are already entering.

In May, Secretary Duffy unveiled a new package of actions to further supercharge the air traffic controller workforce, including financial incentives, rewarding Academy graduates who are assigned to hard-to-staff facilities and expediting routine medical and security clearances.

The FAA also is:

- Initiating a year-round hiring track for experienced controllers from the military and private industry.
- Filling every seat at the FAA Academy and increasing classroom capacity
- Expanding the Enhanced Air Traffic – Collegiate Training Initiative (AT-CTI), which allows students who complete the coursework to bypass the Academy and report directly to an FAA facility to begin their training.
- Deploying upgraded Tower Simulation Systems at 95 facilities, which can reduce training times by up to 27 percent.

Aviation Safety Inspector/Engineer Hiring

What they do: Employees in the FAA's Aviation Safety (AVS) division perform critical functions, including monitoring and enforcing compliance with regulations, investigating accidents and incidents, certifying aircraft, personnel, equipment and avionics and administering the FAA's medical programs.

Challenges: AVS must keep up with rapid technological advancements such as advanced materials for aircraft structures, systems, alternate fuels, airports, and airspace; innovative electric and hybrid systems; and the impact of artificial intelligence and machine learning.

A robust hiring strategy: Initiatives to recruit skilled and experienced inspectors, engineers, and medical officers include:

- On-the-spot hiring authority to expedite hiring safety inspectors, engineers and medical officers.
- Relocation incentives for hard-to-staff areas.
- Premium pay incentive for medical officers.
- Recruitment incentives for hard-to-fill positions.

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PRESIDENTIAL ACTIONS

Immediate Assessment of Aviation Safety

The White House

January 30, 2025

MEMORANDUM FOR THE SECRETARY OF TRANSPORTATION
THE ADMINISTRATOR OF THE FEDERAL AVIATION ADMINISTRATION

SUBJECT: Immediate Assessment of Aviation Safety

On January 29, 2025, a commercial aircraft and a military helicopter horrifically collided near Ronald Reagan Washington National Airport. American families today woke up without their loved ones after what should have been a routine trip, and the entire Nation mourns the loss of the victims. This shocking event follows problematic and likely illegal decisions during the Obama and Biden Administrations that minimized merit and competence in the Federal Aviation Administration (FAA). The Obama Administration implemented a biographical questionnaire at the FAA to shift the hiring focus away from objective aptitude. During my first term, my Administration raised standards to achieve the highest standards of safety and excellence. But the Biden Administration egregiously rejected merit-based hiring, requiring all executive departments and agencies to implement dangerous "diversity equity and inclusion" tactics, and specifically recruiting individuals with "severe intellectual" disabilities in the FAA.

On my second day in office, I ordered an immediate return to merit-based recruitment, hiring, and promotion, elevating safety and ability as the paramount standard. Yesterday's devastating

accident tragically underscores the need to elevate safety and competence as the priority of the FAA.

Consistent with the Presidential Memorandum of January 21, 2025 (Keeping Americans Safe in Aviation), I am further ordering the Secretary of Transportation (Secretary) and the Administrator of the Federal Aviation Administration (Administrator) to review all hiring decisions and changes to safety protocols made during the prior 4 years, and to take such corrective action as necessary to achieve uncompromised aviation safety, including the replacement of any individuals who do not meet qualification standards. This review shall include a systematic assessment of any deterioration in hiring standards and aviation safety standards and protocols during the Biden Administration.

Consistent with the Presidential Memorandum of January 21, 2025, the Secretary and the Administrator shall take all actions necessary to reverse concerning safety and personnel trends during the prior 4 years, instill an unwavering commitment to aviation safety, and ensure that all Americans fly with peace of mind.

Related

Keeping Americans Safe in Aviation

Presidential Actions | January 21, 2025

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PRESIDENTIAL ACTIONS

THE WHITE HOUSE
WASHINGTON

The White House

January 21, 2025

SUBJECT: Keeping Americans Safe in Aviation

Every day, the Federal Aviation Administration (FAA), within the U.S. Department of Transportation, oversees safety for more than 45,000 flights and 2.9 million airline passengers. These Americans trust the FAA's public servants with their lives, and it is therefore imperative that they maintain a commitment to excellence and efficiency.

During the prior administration, however, the FAA betrayed its mission by elevating dangerous discrimination over excellence. For example, prior to my Inauguration, the FAA Diversity and Inclusion website revealed that the prior administration sought to specifically recruit and hire individuals with serious infirmities that could impact the execution of their essential life-saving duties.

Illegal and discriminatory diversity, equity, and inclusion (DEI) hiring, including on the basis of race, sex, disability, or any other criteria other than the safety of airline passengers and overall job excellence, competency, and qualification, harms all Americans, who deserve to fly with confidence. It also penalizes hard-working Americans who want to serve in the FAA but are unable to do so, as they lack a requisite disability or skin color. FAA employees must hold the qualifications and have the ability to perform their jobs to the highest possible standard of excellence.

I hereby order the Secretary of Transportation and the Federal Aviation Administrator to

immediately return to non-discriminatory, merit-based hiring, as required by law. All so-called DEI initiatives, including all dangerous preferencing policies or practices, shall immediately be rescinded in favor of hiring, promoting, and otherwise treating employees on the basis of individual capability, competence, achievement, and dedication.

The Secretary of Transportation and the Federal Aviation Administrator shall review the past performance and performance standards of all individuals in critical safety positions and take all appropriate action to ensure that any individual who fails or has failed to demonstrate requisite capability is replaced by a high-capability individual that will ensure top-notch air safety and efficiency.

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PRESIDENTIAL ACTIONS

PREPARING AMERICANS FOR HIGH-PAYING SKILLED TRADE JOBS OF THE FUTURE

Executive Orders

April 23, 2025

By the authority vested in me as President by the Constitution and the laws of the United States of America, it is hereby ordered:

Section 1. Purpose. To maximize my Administration's historic investments in America's reindustrialization and economic growth, my Administration will fully equip the American worker to produce world-class products and implement world-leading technologies. My Administration will also consolidate and streamline fragmented Federal workforce development programs that are too disconnected from propelling workers into secure, well-paying, and high-need American jobs.

Sec. 2. Policy. It is the policy of the United States to optimize and target Federal investments in workforce development to align with our country's reindustrialization needs and equip American workers to fill the growing demand for skilled trades and other occupations. My Administration will further protect and strengthen Registered Apprenticeships and build on their successes to seize new opportunities and unlock the limitless potential of the American worker.

Sec. 3. Comprehensive Worker Investment and Development Strategy. Within 90 days of the date of this order, the Secretary of Labor, the Secretary of Commerce, and the Secretary of Education shall review all Federal workforce development programs and submit to the Assistant to the President for Domestic Policy and the Director of the Office of Management and Budget a report setting forth strategies to help the American worker. That report shall identify the following:

(a) Opportunities to integrate systems and realign resources to address critical workforce needs and in-demand skills of emerging industries and companies investing in the United States as

determined, to the extent permissible by law, by prospective employers. The report shall include:

(i) administrative reforms to agency policies and programmatic requirements;

(ii) process improvements to better the experience for program participants; and

(iii) recommendations to further restructure and consolidate programs.

(b) Federal workforce development and education programs, or related spending within these programs, that are ineffective or otherwise fail to achieve their desired outcomes. Each identified program should be accompanied by a proposal to reform the program, redirect its funding, or eliminate it.

(c) Available statutory authorities to promote innovation and system integration in pursuit of better employment and earnings outcomes for program participants.

(d) Opportunities to invest in the upskilling of incumbent workers to meet rapidly evolving skill demands of their industries, including the use of Artificial Intelligence in the workplace.

(e) Strategies to identify alternative credentials and assessments to the 4-year college degree that can be mapped to the specific skill needs of prospective employers.

(f) Efficiencies to streamline information collection, including through:

(i) harmonizing performance measures;

(ii) reducing the burden on grantees; and

(iii) ensuring that performance outcomes are measured using the most reliable data sources.

Sec. 4. Expanding Registered Apprenticeships. Within 120 days of the date of this order, the Secretary of Labor, the Secretary of Commerce, and the Secretary of Education shall submit to the Assistant to the President for Domestic Policy and the Director of the Office of Management and Budget a plan to reach and surpass 1 million new active apprentices. That plan shall identify the following:

(a) Avenues to expand Registered Apprenticeships to new industries and occupations, including high-growth and emerging sectors.

(b) Measures to scale this proven model across the country, improve its efficiency, and provide consistent support to program participants.

(c) Opportunities, including through the Carl D. Perkins Career and Technical Education (Perkins V) Act and Federal student aid, to enhance connections between the education system and Registered Apprenticeships.

Sec. 5. Delivering Unprecedented Transparency and Accountability. The Secretary of Labor, the Secretary of Commerce, and the Secretary of Education shall improve transparency on the performance outcomes of workforce development programs and credentials supported through Federal investments, including earnings and employment data, for all Federal workforce development programs.

Sec. 6. General Provisions. (a) Nothing in this order shall be construed to impair or otherwise affect:

(i) the authority granted by law to an executive department or agency, or the head thereof; or

(ii) the functions of the Director of the Office of Management and Budget relating to budgetary, administrative, or legislative proposals.

(b) This order shall be implemented consistent with applicable law and subject to the availability of appropriations.

(c) This order is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.

DONALD J. TRUMP

THE WHITE HOUSE,
April 23, 2025.

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Fact Sheet: President Donald J. Trump Modernizes American Workforce Programs for the High-Paying Skilled Trade Jobs of the Future

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National Planning Frameworks

Urban Search & Rescue

English

On July 28, 2025, FEMA published the Fiscal Year (FY) 2025 funding opportunity for the Urban Search and Rescue (USAR) Response System. Learn more on Grants.gov.

The National Urban Search & Rescue (US&R) Response System (the System), established under the authority of the Federal Emergency Management Agency in 1989, is a framework for organizing federal, state and local partner emergency response teams as integrated federal disaster response task forces. The System's 28 US&R task forces can be deployed by FEMA to a disaster area to provide assistance in structural collapse rescue, or they may be pre-positioned when a major disaster threatens a community.

The System is a vital federal asset to support the continuous operation of critical government and business functions that are essential to human health and safety, or economic security.

The task forces are equipped and ready to deploy within six hours in various response models. When federal support is anticipated prior to an event such as a hurricane, System resources are often pre-positioned along with other federal responders to expedite support following the disaster.

Each NIMS Type 1 US&R task force is composed of 70 members specializing in search, rescue, medicine, hazardous materials, logistics and planning, including technical specialists such as physicians, structural engineers and canine search teams. The task forces can split into two NIMS type 3 US&R task forces with 35-members each to conduct around-the-clock search and rescue operations in 12-hour shifts.

What are the capabilities of a task force?

- Physical search and rescue operations in damaged/collapsed structures
- Emergency medical care for entrapped survivors, task force personnel and search canines
- Reconnaissance to assess damage and needs, and provide feedback to local, state, tribal, territorial and federal officials.
- Assessment/shut-off of utilities to houses and other buildings
- Hazardous materials surveys/evaluations
- Structural/hazard evaluations of buildings needed for immediate occupancy to support disaster relief operations
- Stabilizing damaged structures, including shoring and cribbing operations on damaged buildings
- Hazardous Materials Equipment Push Packages for operations in a contaminated environment
- Search and rescue operations in a water environment

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help reach and recover survivors (and their household pets and/or companion animals) trapped by flood waters.

- Task forces have four 16-foot, flat bottom Jon boats, two inflatable rescue boats, outboard motors and personal protective equipment.
- Water rescue specialists are trained to the National Fire Protection Association (NFPA) 1006 standard: Professional Qualifications of the Technical Rescuer.

How is a Task Force Deployed?

Disaster response is locally executed, state/territory managed and federally supported. Local fire departments, emergency management, and local and state law enforcement are the first to arrive at the scene and begin rescue.

Following a disaster, the local emergency manager may request assistance from the state/territory; if response requirements are beyond the capabilities of the state or territory, federal assistance may be requested.

Join a Task Force

If you are interested in joining an existing Urban Search and Rescue Task Force, you should contact the US&R Task Force in your state or your state or local emergency management office.

Last updated July 29, 2025

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National Planning Frameworks

National Response Framework

English

The National Response Framework (NRF) is a guide to how the nation responds to all types of disasters and emergencies. It is built on scalable, flexible, and adaptable concepts identified in the National Incident Management System to align key roles and responsibilities.

The NRF is structured to help jurisdictions, citizens, nongovernmental organizations and businesses:

- Develop whole community plans
- Integrate continuity plans
- Build capabilities to respond to cascading failures among businesses, supply chains, and infrastructure sectors
- Collaborate to stabilize community lifelines and restore services

The National Response Framework includes:

Emergency Support Functions that describe federal coordinating structures that group resources and capabilities into functional areas most frequently needed in a national response.

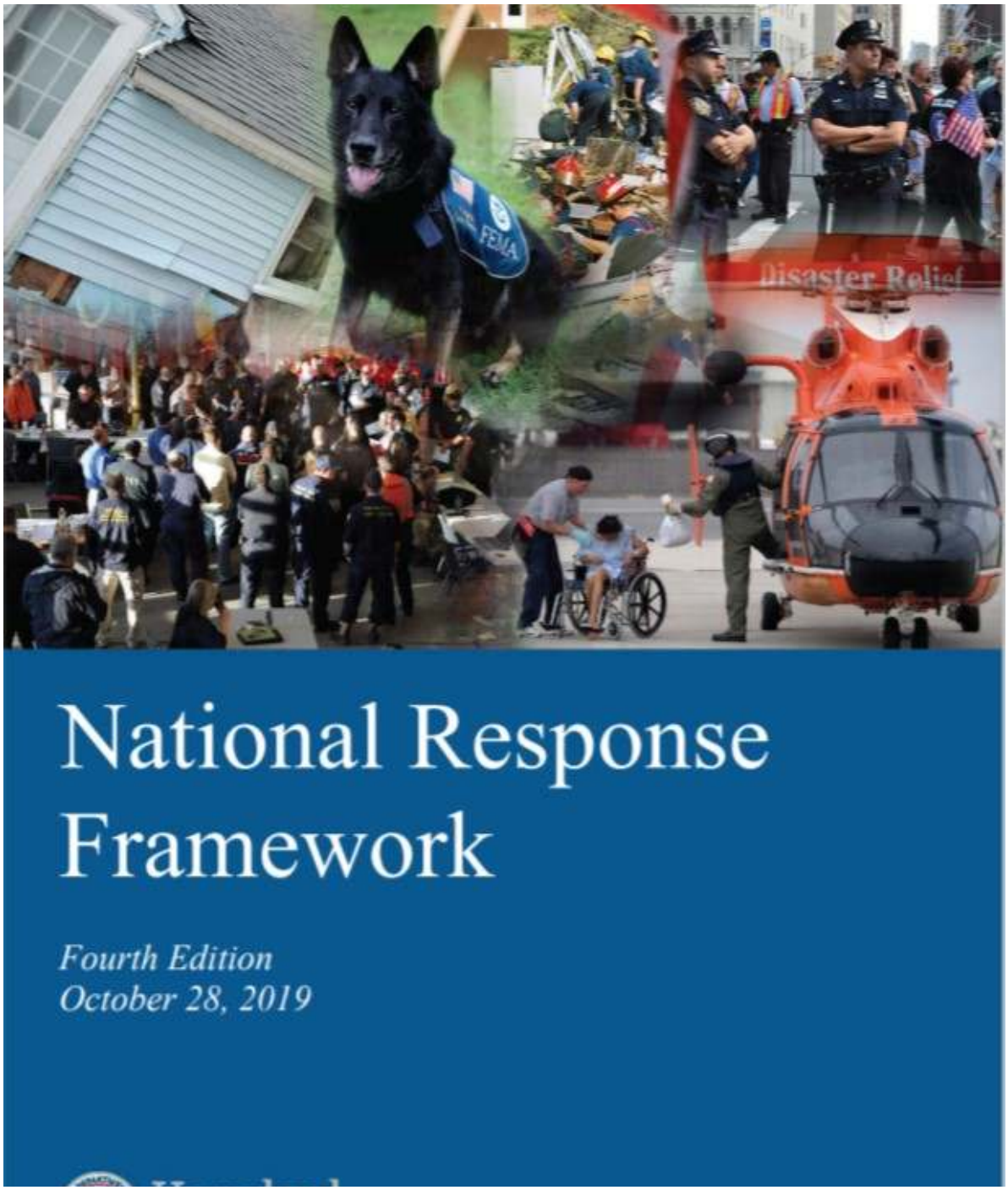
Support Annexes that describe how support is organized among private sector, non-government organizations and federal partners.

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Training Guide

Community Lifelines

FEMA introduced community lifelines in the fourth edition of the National Response Framework. The community lifelines increase our disaster response capabilities by identifying where there is a breakdown in service and evaluating immediate and potential impacts.

Emergency Support Functions

Emergency Support Functions (ESFs) provide the structure for coordinating Federal interagency support for a Federal response to an incident. They are a way to group functions that provide federal support to states and federal-to-federal support, both for Stafford Act declared disasters and emergencies and for non-Stafford Act incidents.

ESF #1: Transportation

ESF #2: Communications

ESF #3: Public Works and Engineering

ESF #4: Firefighting

ESF #5: Information and Planning

ESF #6: Mass Care, Emergency Assistance, Temporary Housing, and Human Services

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ESF #11: Agriculture and Natural Resources Annex

ESF #12: Energy

ESF #13: Public Safety and Security

ESF #14: Cross-Sector Business and Infrastructure

ESF #15: External Affairs

Support Annexes

The support annexes describe common essential processes and considerations for most incidents. Content in the support annexes is superseded by changes and updates to legislation. The support annexes include:

Financial Management

International Coordination

Public Affairs

Tribal Relations

- Tribal Declarations Pilot Guidance

Volunteer and Donations Management

Worker Safety and Health

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- The Advanced Air Mobility National Strategy 2025
- The Advanced Air Mobility National Strategy Digital Summary 2025

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Trump's Transportation Secretary Sean P. Duffy Launches First-Ever National Advanced Air Mobility Strategy to Unlock the Future of Flight

Wednesday, December 17, 2025



Strategy includes 40 recommendations that will continue the United States' position as an aviation powerhouse for the next 100 years

WASHINGTON, D.C. – U.S. Department of Transportation Secretary Sean P. Duffy today unveiled the nation's first ever Advanced Air Mobility (AAM) National Strategy setting an ambitious roadmap to accelerate American aviation innovation and transform our skies for the better.

The Strategy and accompanying action plan outline 40 recommendations to safely and efficiently support AAM operations. The Strategy will also help advance President Trump's "America First" agenda—unleashing America's economic strength and ensuring the U.S., and not our adversaries, remain a global leader in next-generation aviation.

"Since the Wright brothers first took flight in 1903, America has been at the forefront of aviation innovation. Today, we have a bold strategy to unlock the future of our skies and unleash this next chapter of aviation safely and efficiently," said **U.S. Transportation Secretary Sean P. Duffy**. *"Advanced air mobility vehicles will benefit the American people – transforming how the flying public travels, how first responders jump into action and communities access healthcare, how businesses deliver goods, and how we defend our nation. I look forward to working together to make this dream a reality."*

What is AAM?

AAM is a rapidly-emerging aerospace sector focused on safely and efficiently integrating highly automated aircraft into U.S. airspace. AAM is not a single technology but rather a range of innovations—particularly new aircraft types that typically operate below 5,000 feet—to transport people and packages more efficiently than ever before. Beyond aircraft, AAM requires a modern support system, including a skilled workforce, upgraded infrastructure, and clear regulatory frameworks.

Together, AAM has the potential to reshape how Americans live, work, and connect by enhancing rural and urban transportation, strengthening cargo operations, and advancing both medical and military transportation. By integrating automation, AAM should improve safety and efficiency and inspire the next generation of aviators.

Overview:

The Strategy is organized around six key pillars (Airspace, Infrastructure, Security, Community Planning and Engagement, Workforce, and Automation) essential to building a strong AAM system. The Strategy sets forth 40 recommendations designed to establish a resilient foundation for national policy.

The Plan is designed to implement the Strategy recommendations to support the safe, secure, and coordinated introduction of AAM. The Plan gives high-level implementation action items across four distinct strategic action phases, referred to as **LIFT**. These phases will advance research, stakeholder engagement, policy development, and technical deployment.

1. **Leverage** Existing Programs to Support Innovation and Begin Operations
2. **Initiate** Engagement with Partners, Research and Development, and Smart Planning
3. **Forge** New Policy and Models Responsive to Public Needs
4. **Transform** the Aviation Ecosystem

Today's U.S. aviation industry and its workforce, from large manufacturing and commercial operations to robust general aviation, support $1.8 trillion in total economic activity and contribute 4 percent of the U.S. gross domestic product. The future of aviation will include AAM that can provide new levels of mobility, connectivity, and convenience for the transportation of people and cargo.

In June, President Trump issued the Executive Order "Unleashing American Drone Dominance" to enhance United States productivity, create high-skilled jobs, and reshape the future of aviation.

In 2022, Congress passed the Advanced Air Mobility Coordination and Leadership Act, recognizing the need for a whole-of-government approach to advance the Advanced Air Mobility ecosystem in the United States. This Act directed the Department to establish an Interagency Working Group to coordinate federal efforts related to AAM adoption and deployment and to develop both an AAM National Strategy and a Comprehensive Plan.

Support for the AAM Strategy:

"Today's national strategy from the Department of Transportation marks a bold leap toward the future of aviation. From electric aircraft to AI-powered air traffic systems, this strategy reflects America's commitment to lead in next-gen aerospace innovation," said **Federal Communications Commissioner Chairman Brendan Carr**. *"I applaud Secretary Duffy and DOT for assembling an all-star team and am pleased that our talented FCC staff were able to contribute to this historic document. The FCC looks forward to continued collaboration with DOT to make this important vision a reality."*

"Airports are grateful for the leadership of Secretary Duffy, along with the U.S. Department of Transportation and Federal Aviation Administration, in launching the Advanced Air Mobility (AAM) National Strategy and Comprehensive Plan," said **Kevin M. Burke, President & CEO of Airports Council International–North America**. *"Whether carrying passengers or cargo, eVTOLs and other highly automated aircraft will reshape how people and goods move around America. Airports are eager to engage with the Administration to identify the infrastructure needed to ensure safe and efficient AAM operations, as well as the funding mechanisms to support them. We look forward to playing a central role in advancing the nation's AAM strategy."*

"Today is a landmark moment for advanced air mobility. At Electra, we applaud the Administration's visionary leadership in navigating the most significant shift in aviation in a generation," said **Marc Allen, CEO of Electra.aero, Inc.** *"Our nine-passenger EL9 Ultra Short aircraft, whose certification is proceeding under the Department of Transportation's long-*

established Part 23 process, takes off and lands in just 150 feet. It opens the door to a new era of Direct Aviation, where people can fly from where they are to where they want to go. We're excited to work alongside the Department and the Administration to strengthen America's leadership in this critical industry."

"The future of aviation must be built in America. We welcome Secretary Duffy and the Department of Transportation's leadership in advancing air taxis and are committed to bringing them into safe, real-world operation here in the U.S.," said **Adam Goldstein, Founder & CEO of Archer**.

"Global leadership in advanced air mobility will be held by those who build, certify, and deploy first," said **Kyle Clark, Founder & CEO of BETA Technologies**. *"This National strategy, which lays out a bold, long-term vision for the future of this industry, puts the U.S. on that path, and BETA's products are positioned to help deliver it. This creates a clear pathway for us to continue producing American-made, next generation technology to support both the needs of civilian communities and the mobility needs of our troops."*

"Advanced Air Mobility is the key to unlocking U.S. aviation leadership, addressing transportation and cargo gaps and supporting national security. The 2025 National AAM Strategy creates the roadmap for how the U.S. wins the autonomy race," said **Robert Rose, CEO & Co-Founder of Reliable Robotics**. *"FAA-certified aircraft autonomy will prevent the most common causes of aviation accidents, connect small towns and rural communities and provide transformational contested logistics capabilities to our warfighters. Reliable Robotics applauds President Trump's Transportation Secretary Sean P. Duffy for his tireless work to advance United States leadership in AAM."*

"On behalf of NBAA and the association's Advanced Air Mobility Roundtable, I want to thank Congress for directing this plan, and the DOT for delivering a national strategy, coordinated across 25 federal agencies, that blazes a path forward for the safe integration of AAM into the national airspace system," said **Matt Byrd, Vice Chair of NBAA's Board of Directors and President & CEO of Hillwood Aviation**.

"AUVSI commends Secretary Duffy for his leadership in keeping the United States at the forefront of aviation advancement and safety," said **Michael Robbins, President & CEO of AUVSI**. *"AUVSI looks forward to partnering with DOT, FAA, Congress, state and local governments, and industry to translate this strategy into action, accelerate innovation, and ensure the benefits of advanced air mobility and automation are realized for communities across the nation, and furthering U.S. leadership in advanced aviation."*

"Today is a significant day for the Advanced Air Mobility sector. GAMA applauds all the hard and collaborative work from the AAM Interagency Working Group, led by DOT, to create and put forth this national strategy," said **James Viola, President & CEO of the General Aviation Manufacturers Association (GAMA)**. "*This strategy will ensure that the U.S. will be a global leader in AAM through the sector's integration into the national airspace system with a focus on adapting and improving infrastructure; strengthening the aviation workforce; adapting and improving infrastructure; expanding security, safety and automation; and furthering community planning and engagement. The growth of the AAM sector will facilitate additional transportation options, create jobs, stimulate economic activity and competitiveness, and foster further advancement in aerospace technology."*

"States are excited for the advent of Advanced Air Mobility operations and are working to position themselves to assist the FAA in integrating them into the system. We know that together with the federal government we have already invested in building thousands of airports across the nation in and around communities that are are well positioned to launch this exciting new technology," said **Greg Pecoraro, President & CEO of National Association of State Aviation Officials (NASAO)**. *"States will be essential for AAM operations through many functions that draw on local and regional expertise, and we look forward to partnering with USDOT and the FAA in this effort."*

"AUVSI commends Secretary Duffy for his leadership in keeping the United States at the forefront of aviation advancement and safety," said **Michael Robbins, President & CEO of AUVSI**. *"AUVSI looks forward to partnering with DOT, FAA, Congress, state and local governments, and industry to translate this strategy into action, accelerate innovation, and ensure the benefits of advanced air mobility and automation are realized for communities across the nation, and furthering U.S. leadership in advanced aviation."*

"The promise of advanced air mobility will be a game-changer in communities all across the country," said **Todd Hauptli, CEO & President of AAAE**. *"Secretary Duffy today unveiled an ambitious vision for its future and we are ready to get to work with our partners in government and industry to work through implementation issues and accelerate its widespread adoption."*

"Vertical Aviation International appreciates this Administration's leadership in advancing American ingenuity, and we strongly support the National Strategy for Advanced Air Mobility, which provides a clear, coordinated vision for integrating new vertical aviation capabilities safely and responsibly," said **François Lassale, President & CEO of Vertical Aviation International**.

"The Advanced Air Mobility National Strategy represents an important milestone in aligning innovation with practical implementation," said **Curt Castagna, President & CEO of NATA**. "*AAM has the potential to serve as a catalyst for new aviation services and connections, extending aviation's reach to more communities. We thank Secretary Duffy for his leadership and vision in advancing a coordinated national framework and for recognizing the importance of industry collaboration as these technologies move toward deployment. Realizing that potential will require thoughtful coordination*

across government and industry, with careful attention to infrastructure, energy, communications, and integration into existing airspace. Forward-looking regulatory and operational frameworks, supported by specialized expertise and operational experience, will be essential to balancing innovation with safety, scalability, and long-term success."

"The release of this National Strategy is a historic and pivotal moment for the entire AAM industry and for the future of U.S. aerospace leadership. For Wisk, the Strategy recognizes that autonomy is the key to unlocking the full potential of AAM," said S**ebastien Vigneron, CEO of Wisk**. *"Autonomy can enhance safety, facilitate scaling to meet public demand, and help reduce operational costs. This federal recognition aligns with our mission, and we're eager to prove out our technologies."*

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Exhibit C.II – Second Prong – Well-Positioned to Advance the Proposed Endeavor

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VI - Nacionalidade / *Nationality*

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XIV - CPF

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IVa - Data de Nascimento / *Date of Birth*

10/05/1964

II - Licença / *License*

LICENÇA *License*	CATEGORIA *Category*	DATA DE EXPEDIÇÃO *Date of Issue dd/mm/yyyy*	NÚMERO *Number*
AIRLINE TRANSPORT PILOT - HELICOPTER	Helicopter	05/26/2004	00882

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HABILITAÇÃO *Rating*	VALIDADE *Expire Date (mm/yyyy)*	FUNÇÃO A BORDO *Position*
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SK92	09/2026	PD

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Primeira / First	04/25/2026	CLC024	

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I, Marina Viana Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that I have performed the professional translation of this document from Portuguese to English, as a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Marina Viana

_____ **Date: April, 23 2026**

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IV - Nome / *Name*

LUIZ HENRIQUE GARCEZ LOTUFO

VI - Nacionalidade / *Nationality*

BRA

XIV - Identidade / *ID Number*

023260093-2

XIV - CPF

08111234805

IVa - Data de Nascimento / *Date of Birth*

05/10/1964

II - Licença / *License*

LICENÇA *License*	CATEGORIA *Category*	DATA DE EXPEDIÇÃO *Date of Issue dd/mm/yyyy*	NÚMERO *Number*
PILOTO DE LINHA AEREA - HELICOPTERO	Helicóptero	26/05/2004	00882

XII - Habilitação / *Rating*

HABILITAÇÃO *Rating*	VALIDADE *Expire Date (mm/yyyy)*	FUNÇÃO A BORDO *Position*
IFRH	09/2026	PD
SK92	09/2026	PD

XIV - Certificado Médico Aeronáutico / *Medical Certificate*

CLASSE *Class*	VALIDADE *ExpireDatedd/mm/yyyy*	ORGÃO EXPEDIDOR *Issuing Agency*	OBSERVAÇÕES *Remarks*
Primeira / First	25/04/2026	CLC024	

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Emitida Eletronicamente em 26/05/2004, conforme horário oficial de Brasília. Marcus Vinícius Fernandes Ramos Gerente de Certificação de Pessoal - GCEP/SPO/ANAC

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FEDERATIVE REPUBLIC OF BRAZIL
VIII - AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL
NATIONAL CIVIL AVIATION AGENCY
XIa - ANAC
IVb - Nome / Name
LUIZ HENRIQUE GARCEZ LOTUFO
VI - Nacionalidade / Nationality
BRA
IVc - Data de Nascimento / Date of Birth
1964-10-05
III - Número da Licença / License Number
00882
XIVb - Emissão / Date of Issue
2004-05-26
XIVa - CPF / Individual Taxpayer Registration
08111234805
IVa -
CANAC
705632


IX - Considerado como adequadamente qualificado para o exercício das prerrogativas de:
Has been found to be property qualified to exercise the privileges of:
PILOTO DE LINHA AEREA - HELICOPTERO
AIRLINE TRANSPORT PILOT - HELICOPTER
Obs.: licenças válidas indefinidamente / licences are valid indefinetely
XIc - ANAC
Validade em / Authenticated in
HTTPS://SISTEMAS.ANAC.GOV.BR/NOVACHT/CONSULTANOVACHT
XII - Habilitações / Ratings
IFRH
SK92
Validade em / Authenticated in
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XIII - Observações / Remarks
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Issued electronically on 04/25/2025, at 1:13 PM, in accordance with the official time of Brasília. Electronically signed by José Luiz Povil de Souza – Technical Manager of Quality and Personnel Certification – Department of Civil Aviation Personnel - GTQC/SPL/ANAC.
VII - Assinatura / Signature of Holder


IVb - Nome / Name
LUIZ HENRIQUE GARCEZ LOTUFO
VI - Nacionalidade / Nationality
BRA
CANAC
705632
XIc - ANAC
Validade em / Authenticated in
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XVa - Classe Certificado Médico Aeronáutico / Medical Certificate Class
Primeira / First
XVb - Data de vigência / Expirity date
2026-04-25
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I, Marina Viana Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that I have performed the professional translation of this document from Portuguese to English, as a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Marina Viana

Date: April, 23 2026







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NATIONAL CIVIL AVIATION AGENCY
SCS, Block 09, Lote C, Tower A – 3rd Floor, Parque Cidade Corporate Building
Setor Comercial Sul neighborhood, Brasília/DF, ZIP Code 70308-200 – www.gov.br/anac

Official Letter No. 3083/2025/GTCE/GOAG/SPO-ANAC

Brasília, *on the date of signature*.

Mr. Edinamar Santana Lima
Chief Pilot
OMNI TÁXI AÉREO S/A
Jacarepaguá Airport – Omni Táxi Aéreo Hangar - Av. Ayrton Senna, 2,541 – Rua F – No. 40 – Barra da Tijuca
ZIP Code: 22775-001 – Rio de Janeiro / RJ

Subject: **Amendment of** Authorization for **Helicopter External Load Operations**

Reference: **Case No. 00066.004477/2025-66**

Attachment: **Authorization No. 12/2025/GTCE/GOAG/SPO (SEI! 11458657)**

E-mail: operacoes@omnibrasil.com.br

Dear Sir,

1. Concerning the request contained in the referenced case file, the GTCE hereby informs that this company's authorization for helicopter external load operations (Revision 42) includes crew members as requested.

2. We further inform that this case file may be monitored by the applicant or its legal representative through the Electronic Information System SEI system (https://www.gov.br/anac/pt-br/sistemas/protocolo-eletronico-sei). If necessary, access to documents classified as restricted under Law No. 12,527 (Access to Information Law) may be requested through the Citizen Information Service (SIC) (https://www.gov.br/anac/pt-br/acesso-a-informacao/servico-de-informacoes-ao-cidadao-sic).

3. In case of questions or complaints, the GTCE may be contacted through the "Contact ANAC" (Fale com a ANAC) channel (https://www.gov.br/anac/pt-br/canais_atendimento/fale-com-a-anac).

4. Finally, clarifications regarding more complex matters that cannot be adequately resolved through the Contact ANAC channels may be obtained by scheduling a Virtual Technical Meeting at: https://www.gov.br/anac/pt-br/canais_atendimento/reuniao-virtual.

.

Sincerely,

DANIEL JUNKES NETO

Acting Technical Manager of Certification – GTCE

Document electronically signed by **Daniel Junkes Neto, Technical Manager, Acting**, on 04/25/2025, at 11:46 AM, in accordance with the official time of Brasília, pursuant to Article 4 of Decree No. 10,543, of November 13, 2020.

The authenticity of this document may be verified at https://sei.anac.gov.br/sei/autenticidade by entering verification code **11459941** and CRC code **8623E289**.

Reference: If replying to this Official Letter, please expressly indicate Case No. 00066.004477/2025-66. SEI No. 11459941

**GTCE - Technical Certification Management*
**GOAG - General Aviation Operations Branch*
**SPO - Department of Flight Standards*

AUTHORIZATION No. 12/2025/GTCE/GOAG/SPO

NATIONAL CIVIL AVIATION AGENCY

DEPARTMENT OF FLIGHT STANDARDS

AUTHORIZATION FOR HELICOPTER EXTERNAL LOAD OPERATIONS

OMNI TÁXI AÉREO S.A.

Revision No. 42

PART A – GENERAL

A.1 This authorization is issued in favor of **OMNI TÁXI AÉREO S.A.**, in accordance with the provisions of the Brazilian Civil Aviation Regulation (RBAC) 133 and pursuant to Section 133.11 of said regulation.

A.2 In accordance with Section 133.13, the validity of this authorization expires in **MARCH 2027**.

A.3 This authorization shall be returned to the National Civil Aviation Agency upon its expiration or when **OMNI TÁXI AÉREO S.A. (CNPJ: 03.670.763/0001-38)** permanently ceases its external load operations.

A.4 ANAC may, at any time, amend, suspend, or revoke this authorization to ensure the maintenance of flight safety.

A.5 A copy of this authorization shall be carried on board each aircraft authorized under item B.1.

A.6 The definitions contained in RBAC No. 01, RBAC No. 119, RBAC No. 133, and IS No. 133-001 apply to this document.

A.7 Pilot **EDINAMAR SANTANA LIMA**, ANAC Code **849570**, license **PLH-00732**, has been designated by **OMNI TÁXI AÉREO S.A.**, and accepted by ANAC, to serve as Chief Pilot for External Load Operations, as required by Section 133.21(a) of RBAC 133.

A.8 The Chief Pilot for External Load Operations designated above is authorized to conduct evaluations of pilots' knowledge and skills for their inclusion in this Authorization for Helicopter External Load Operations.

A.9 Pilot **VINÍCIUS DO BEM OLIVEIRA**, ANAC Code **123376**, license **PLH-02607**, pilot **RICARDO DA COSTA LOBATO**, ANAC Code **944926**, license **PLH-02351**, pilot **NELSON LACOMBE**, ANAC Code **691626**, license **PLH-00286**, pilot **GILBERTO PEREIRA JUNIOR**, ANAC Code **117782**, license **PLH-00994**, pilot **RODRIGO COSTA DE AZEVEDO**, ANAC Code **902536**, license **PLH 01878**, pilot **MARCOS FELIPE MOREIRA DE CARVALHO**, ANAC Code **115343**, license PLH **02021**, pilot **CLEBER LOURENÇO GUMIERO**, ANAC Code **107290**, license PLH **01892**, pilot **DIOGO HOLANDA MENEZES MARTINS**, ANAC Code **115248**, license **PLH 02220**, and pilot **MAURICIO FALASCHI**, ANAC Code **109182**, license **PLH 01858**, were designated by **OMNI TÁXI AÉREO S.A.**, and accepted by ANAC, for the position of Assistant Chief Pilot for External Cargo, according to section 133.21(b) of RBAC 133.

A.10 The Assistant Chief Pilots for External Load Operations listed above are authorized to conduct evaluations of pilots' knowledge and skills for their inclusion in this Authorization for Helicopter External Load Operations.

PART B – OPERATIONAL LIMITATIONS

B.1 OMNI TÁXI AÉREO S.A. is authorized to conduct external load operations only with the following aircraft:

Manufacturer	Model	Class(es)	Certification Category
AIRBUS HELICOPTERS	EC175 B	B	TRANSPORT A
EUROCOPTER FRANCE	EC 225 LP	B/D	TRANSPORT A/B
SIKORSKY AIRCRAFT	SK-92A	B	TRANSPORT A/B
LEONARDO AGUSTA	AW-139	B/D	TRANSPORT A/B

B.2 The following types of operations may be conducted by **OMNI TÁXI AÉREO S.A.**:

Model	External Load Transportation		Firefighting (Bambi Bucket)		Hoisting of Cargo/Personnel with Winch	Personnel Rappelling by Rope
	Short-Line	Long-Line	Short-Line	Long-Line		
EC175 B	X	X	X	X		
EC 225 LP	X	X	X	X		X
SK-92A	X	X			X	
AW-139					X	

B.3 External load operations authorized by this document may only be conducted in the following area:
The entire Brazilian Continental Territory and offshore maritime units.

B.4 The pilots authorized to conduct the operations covered by this authorization are listed below:

PILOT NAME	CANAC	LICENSE	AIRCRAFT	TYPES OF OPERATION
ALMIR FLÁVIO TARGINO LARA	477999	PCH 08072	SK-92A	HOISTING OF CARGO/PERSONNEL WITH WINCH
ANDRÉ DE SOUSA HIRABAE	905596	PLH 00968	SK-92A	EXTERNAL LOAD TRANSPORTATION WITH SHORT-LINE AND LONG-LINE
AUGUSTO CESAR REZENDE TELLES	982223	PLH 01657	AW-139	HOISTING OF CARGO/PERSONNEL WITH WINCH
EDINAMAR SANTANA LIMA	849570	PLH 00732	EC175 B	EXTERNAL LOAD TRANSPORTATION WITH SHORT-LINE AND LONG-LINE FIREFIGHTING WITH SHORT-LINE AND LONG-LINE (BAMBI BUCKET)
			EC 225 LP	EXTERNAL LOAD TRANSPORTATION WITH SHORT-LINE AND LONG-LINE

				FIREFIGHTING WITH SHORT-LINE AND LONG-LINE (BAMBI BUCKET) PERSONNEL RAPPELLING BY ROPE
VINÍCIUS DO BEM OLIVEIRA	123376	PLH 02607	EC 225 LP	EXTERNAL LOAD TRANSPORTATION WITH SHORT-LINE AND LONG-LINE PERSONNEL RAPPELLING BY ROPE FIREFIGHTING WITH SHORT-LINE AND LONG-LINE (BAMBI BUCKET)
			EC175 B	EXTERNAL LOAD TRANSPORTATION WITH SHORT-LINE AND LONG-LINE
EGON ZUCATTI BUTTNER	983510	PLH 00622	EC 225 LP	EXTERNAL LOAD TRANSPORTATION WITH SHORT-LINE AND LONG-LINE PERSONNEL RAPPELLING BY ROPE FIREFIGHTING WITH SHORT-LINE AND LONG-LINE (BAMBI BUCKET)
			EC175 B	EXTERNAL LOAD TRANSPORTATION WITH SHORT-LINE AND LONG-LINE
IAM ROZEMBERG	158883	PLH 03051	SK-92A	HOISTING OF CARGO/PERSONNEL WITH WINCH
IGOR DE BARROS FABBRI DOS REIS	146773	PLH 02936	SK-92A	HOISTING OF CARGO/PERSONNEL WITH WINCH
LUIZ HENRIQUE GARCEZ LOTUFO	705632	PLH 00882	EC 225 LP	EXTERNAL LOAD TRANSPORTATION WITH SHORT-LINE AND LONG-LINE

			SK-92A	EXTERNAL LOAD TRANSPORTATION WITH SHORT-LINE AND LONG-LINE
OSMAR BARBOSA DE SOUZA JÚNIOR	870212	PLH 00844	EC 225 LP	EXTERNAL LOAD TRANSPORTATION WITH SHORT-LINE AND LONG-LINE
			SK-92A	EXTERNAL LOAD TRANSPORTATION WITH SHORT-LINE AND LONG-LINE
NELSON LACOMBE	691626	PLH 00286	EC 225 LP	EXTERNAL LOAD TRANSPORTATION WITH SHORT-LINE AND LONG-LINE FIREFIGHTING WITH SHORT-LINE AND LONG-LINE (BAMBI BUCKET) PERSONNEL RAPPELLING BY ROPE
			SK-92A	EXTERNAL LOAD TRANSPORTATION WITH SHORT-LINE AND LONG-LINE
MURILO SÉRGIO RIBEIRO ARANHA	479246	PLH 00168	EC 225 LP	EXTERNAL LOAD TRANSPORTATION WITH SHORT-LINE AND LONG-LINE FIREFIGHTING WITH SHORT-LINE AND LONG-LINE (BAMBI BUCKET)
			SK-92A	EXTERNAL LOAD TRANSPORTATION WITH SHORT-LINE AND LONG-LINE
MARCELO DONIZETTI DA SILVA	145264	PLH 02276	EC175 B	EXTERNAL LOAD TRANSPORTATION WITH SHORT-LINE AND LONG-LINE
RICARDO DA COSTA LOBATO	944926	PLH 02351	EC175 B	EXTERNAL LOAD TRANSPORTATION WITH SHORT-LINE AND LONG-LINE

EDISON LUIZ DE CALDAS	752048	PLH 00855	EC175 B	EXTERNAL LOAD TRANSPORTATION WITH SHORT-LINE AND LONG-LINE
ULISSES ZAGO	590893	PLH 01946	EC175 B	EXTERNAL LOAD TRANSPORTATION WITH SHORT-LINE AND LONG-LINE
LUIZ GUSTAVO FRANCO MARCOS	107778	PLH 02688	EC175 B	EXTERNAL LOAD TRANSPORTATION WITH SHORT-LINE AND LONG-LINE
NEWTON MACHADO BARRETO FILHO	101786	PLH 02236	EC175 B	EXTERNAL LOAD TRANSPORTATION WITH SHORT-LINE AND LONG-LINE
GILBERTO PEREIRA JUNIOR	117782	PLH 00994	AW-139	HOISTING OF CARGO/PERSONNEL WITH WINCH
FERNANDO KUNZLER	133657	PLH 02761	AW-139	HOISTING OF CARGO/PERSONNEL WITH WINCH
			SK-92A	HOISTING OF CARGO/PERSONNEL WITH WINCH
GIORDANO DASSI	141238	PLH 02846	AW-139	HOISTING OF CARGO/PERSONNEL WITH WINCH
			SK-92A	HOISTING OF CARGO/PERSONNEL WITH WINCH
LUIZ ANDRÉ BRAZ SERAFIM	114026	PLH 00892	AW-139	HOISTING OF CARGO/PERSONNEL WITH WINCH
MARCELO RODRIGUES DA SILVA	172450	PLH 02245	EC 225 LP	EXTERNAL LOAD TRANSPORTATION WITH SHORT-LINE AND LONG-LINE PERSONNEL RAPPELLING BY ROPE

				FIREFIGHTING WITH SHORT-LINE AND LONG-LINE (BAMBI BUCKET)
JEFFERSON STWART DAS CHAGAS	117740	PLH 02187	EC175 B	EXTERNAL LOAD TRANSPORTATION WITH SHORT-LINE AND LONG-LINE
MARCOS ROGÉRIO AMORIM	202903	PLH 02375	EC 225 LP	EXTERNAL LOAD TRANSPORTATION WITH SHORT-LINE AND LONG-LINE FIREFIGHTING WITH SHORT-LINE AND LONG-LINE (BAMBI BUCKET)
RODRIGO COSTA DE AZEVEDO	902536	PLH 01878	SK-92A	HOISTING OF CARGO/PERSONNEL WITH WINCH
MARCOS FELIPE MOREIRA DE CARVALHO	115343	PLH 02021	AW-139	HOISTING OF CARGO/PERSONNEL WITH WINCH
			SK-92A	HOISTING OF CARGO/PERSONNEL WITH WINCH
MAURICIO FALASCHI	109182	PLH 01858	SK-92A	HOISTING OF CARGO/PERSONNEL WITH WINCH
JOSÉ FERNANDO DE OLIVEIRA	103330	PLH 00727	EC 225 LP	EXTERNAL LOAD TRANSPORTATION WITH SHORT-LINE AND LONG-LINE FIREFIGHTING WITH SHORT-LINE AND LONG-LINE (BAMBI BUCKET)
CLEBER LOURENÇO GUMIERO	107290	PLH 01892	SK-92A	HOISTING OF CARGO/PERSONNEL WITH WINCH
DIOGO HOLANDA MENEZES MARTINS	115248	PLH 02220	AW-139 SK-92A	HOISTING OF CARGO/PERSONNEL WITH WINCH

FRANKLIN NOGUEIRA GONÇALVES JUNIOR	817460	PLH 00908	AW-139	HOISTING OF CARGO/PERSONNEL WITH WINCH
LUCIANO DEMETRIUS SIVIERI	169535	PLH 02685	EC175 B	EXTERNAL LOAD TRANSPORTATION WITH SHORT-LINE AND LONG-LINE
RENAN BARBIERI	212256	PCH 05991	EC175 B	EXTERNAL LOAD TRANSPORTATION WITH SHORT-LINE AND LONG-LINE
FELIPE DINIZ ALVES BOMFIM	130210	PLH 02686	SK-92A	HOISTING OF CARGO/PERSONNEL WITH WINCH
VIRGILIO FERREIRA NOVAIS	181502	PLA 16772	SK-92A	HOISTING OF CARGO/PERSONNEL WITH WINCH
VITOR CARLOS ANTUNES FILHO	187766	PLH 03344	SK-92A	HOISTING OF CARGO/PERSONNEL WITH WINCH

PART C – MAINTENANCE

RESERVED

PART D – ADDITIONAL LIMITATIONS

D.1 Under no circumstances may passengers be carried during external load operations.

D.2 Rappelling operations shall be conducted only with personnel duly qualified for such activities, and it is the sole responsibility of the company to ensure that only such individuals participate in these operations.

D.3 Operations shall be conducted during daytime and in accordance with Visual Flight Rules (VFR).

D.4 Operations shall follow the procedures described in the Aircraft-Load Combination Flight Manual approved by ANAC.

Brasília, *date as per electronic signature*.

DANIEL JUNKES NETO
Acting Technical Manager of Certification – GTCE

Document electronically signed by **Daniel Junkes Neto, Technical Manager, Acting**, on 04/25/2025, at 10:02 AM, in accordance with the official time of Brasília, pursuant to Article 4 of Decree No. 10,543, of November 13, 2020.

The authenticity of this document may be verified at https://sei.anac.gov.br/sei/autenticidade by entering verification code **11458657** and CRC code **F27C1C02**.

I, Marina Viana Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that I have performed the professional translation of this document from Portuguese to English, as a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Marina Viana **Date: April, 23 2026**

AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL
SCS, Quadra 09, Lote C, Torre A - 3º Andar, Edifício Parque Cidade Corporate
Bairro Setor Comercial Sul, Brasília/DF, CEP 70308-200 – www.gov.br/anac

Ofício nº 3083/2025/GTCE/GOAG/SPO-ANAC

Brasília, *na data da assinatura.*

Ao Senhor

EDINAMAR SANTANA LIMA

Piloto Chefe

OMNI TÁXI AÉREO S/A

Aeroporto de Jacarepaguá – Hangar Omni Táxi Aéreo – Av. Ayrton Senna, 2.541 – Rua F – Nº 40 – Barra da Tijuca

CEP: 22.775-001 - Rio de Janeiro / RJ

Assunto: **Modificação de** Autorização P**ara Operação de Helicóptero com Carga Externa**

Referência: **Processo Nº 00066.004477/2025-66**

Anexo: **Autorização Nº 12/2025/GTCE/GOAG/SPO (SEI! 11458657)**

E-mail: operacoes@omnibrasil.com.br

Prezado Senhor,

1. Em atenção à solicitação contida no processo em referência, a GTCE informa a alteração da autorização para operação de helicópteros com carga externa dessa empresa (revisão 42) com o objetivo de inclusão de tripulantes conforme solicitado.

2. Informo ainda que este processo pode ser acompanhado pelo requerente ou seu representante legal pelo sistema SEI (https://www.gov.br/anac/pt-br/sistemas/protocolo-eletronico-sei), se necessário, solicitando vista aos documentos que estiverem protegidos conforme a Lei nº 12.527 (Lei de Acesso à Informação) pelo Serviço de Informações ao Cidadão – SIC (https://www.gov.br/anac/pt-br/acesso-a-informacao/servico-de-informacoes-ao-cidadao-sic).

3. Em caso de dúvidas ou reclamações, a GTCE pode ser contatada por meio do canal "Fale com a ANAC" (https://www.gov.br/anac/pt-br/canais_atendimento/fale-com-a-anac).

4. Por fim, esclarecimentos de assuntos e situações de maior complexidade, que não possam ser solucionados adequadamente pelos canais do Fale com a ANAC, podem ser feitos através do agendamento de uma Reunião Técnica Virtual através do endereço https://www.gov.br/anac/pt-br/canais_atendimento/reuniao-virtual.

Atenciosamente,

DANIEL JUNKES NETO

Gerente Técnico de Certificação Substituto - GTCE

Documento assinado eletronicamente por **Daniel Junkes Neto**, **Gerente Técnico, Substituto(a)**, em 25/04/2025, às 11:46, conforme horário oficial de Brasília, com fundamento no art. 4º, do Decreto nº 10.543, de 13 de novembro de 2020.

A autenticidade deste documento pode ser conferida no site https://sei.anac.gov.br/sei/autenticidade, informando o código verificador **11459941** e o código CRC **8623E289**.

Referência: Caso responda este Ofício, indicar expressamente o Processo nº 00066.004477/2025-66 SEI nº 11459941

AUTORIZAÇÃO Nº 12/2025/GTCE/GOAG/SPO

AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL

SUPERINTENDÊNCIA DE PADRÕES OPERACIONAIS

AUTORIZAÇÃO PARA OPERAÇÃO DE HELICÓPTEROS COM CARGA EXTERNA

OMNI TÁXI AÉREO S.A.

Revisão nº 42

PARTE A – GENERALIDADES

A.1 Esta autorização é emitida em favor da empresa **OMNI TÁXI AÉREO S.A.**, segundo as provisões do Regulamento Brasileiro de Aviação Civil (RBAC) 133 e atendendo ao previsto na seção 133.11 do mesmo regulamento.

A.2 De acordo com a seção 133.13, a validade desta autorização expira em **MARÇO/2027**.

A.3 Esta autorização deverá ser devolvida à Agência Nacional de Aviação Civil ao final de sua validade ou quando a **OMNI TÁXI AÉREO S.A. (CNPJ: 03.670.763/0001-38)**, interromper em definitivo suas operações com cargas externas.

A.4 A ANAC poderá, a qualquer tempo, alterar, suspender ou revogar esta autorização, para garantir a manutenção da segurança de voo.

A.5 Cópia desta autorização deverá ser conduzida a bordo de cada aeronave autorizada no item B.1.

A.6 As definições contidas no RBAC nº 01, no RBAC nº 119, no RBAC nº 133 e na IS nº 133-001 são utilizadas neste documento.

A.7 O piloto **EDINAMAR SANTANA LIMA**, Código ANAC **849570**, licença **PLH-00732**, foi designado pela **OMNI TÁXI AÉREO S.A.**, e aceito pela ANAC, para o cargo de Piloto-Chefe de Carga Externa, requerido pela seção 133.21(a) do RBAC 133.

A.8 O Piloto-Chefe de Carga Externa acima designado, está autorizado a realizar a avaliação de conhecimentos e habilidades dos pilotos para fins de inclusão dos mesmos nesta Autorização para Operação de Helicópteros com Carga Externa.

A.9 O piloto **VINÍCIUS DO BEM OLIVEIRA**, Código ANAC **123376**, licença **PLH-02607**, o piloto **RICARDO DA COSTA LOBATO**, Código ANAC **944926**, licença **PLH-02351**, o piloto **NELSON LACOMBE**, Código ANAC **691626**, licença **PLH-00286**, o piloto **GILBERTO PEREIRA JUNIOR**, Código ANAC **117782**, licença **PLH-00994**, o piloto **RODRIGO COSTA DE AZEVEDO,** Código ANAC **902536**, licença **PLH 01878**, o piloto **MARCOS FELIPE MOREIRA DE CARVALHO**, Código ANAC **115343**, licença **PLH 02021**, o piloto **CLEBER LOURENÇO GUMIERO**, Código ANAC **107290**, licença **PLH 01892**, o piloto **DIOGO HOLANDA MENEZES MARTINS**, Código ANAC **115248**, licença **PLH 02220**, o piloto **MAURICIO FALASCHI**, Código ANAC **109182**, licença **PLH 01858** foram designados pela **OMNI TÁXI AÉREO S.A.**, e aceitos pela ANAC, para o cargo de Piloto-Chefe Assistente de Carga Externa, segundo seção 133.21(b) do RBAC 133.

A.10 Os Assistentes do Piloto-Chefe de Carga Externa acima designados estão autorizados a realizar a avaliação de conhecimentos e habilidades dos pilotos para fins de inclusão dos mesmos nesta Autorização para Operação de Helicópteros com Carga Externa.

PARTE B – LIMITAÇÕES OPERACIONAIS

B.1 A **OMNI TÁXI AÉREO S.A.** está autorizada a conduzir operações com cargas externas somente com a seguinte aeronave:

Fabricante	Modelo	Classe(s)	Categoria de Homologação
AIRBUS HELICOPTERS	EC175 B	B	TRANSPORTE A
EUROCOPTER FRANCE	EC 225 LP	B/D	TRANSPORTE A/B
SIKORSKY AIRCRAFT	SK-92A	B	TRANSPORTE A/B
LEONARDO AGUSTA	AW-139	B/D	TRANSPORTE A/B

B.2 Os seguintes tipos de operações poderão ser conduzidos pela **OMNI TÁXI AÉREO S.A.**:

Modelo	Transporte de Carga Externa		Combate a Incêndios (Bambi Bucket)		Içamento de Cargas/Pessoas com Guincho	Descida de Rapel de Pessoas por Cabo
	Linha Curta	Linha Longa	Linha Curta	Linha Longa		
EC 175 B	X	X	X	X		
EC 225 LP	X	X	X	X		X
SK-92A	X	X			X	
AW-139					X	

B.3 As operações de carga externa autorizadas por este documento somente poderão ser conduzidas na seguinte área: **Todo o Território Continental Brasileiro e unidades marítimas offshore.**

B.4 Os pilotos autorizados a conduzir as operações de que trata esta autorização são os abaixo relacionados:

NOME DO PILOTO	CANAC	LICENÇA	AERONAVE	TIPOS DE OPERAÇÃO
ALMIR FLÁVIO TARGINO LARA	477999	PCH 08072	SK-92A	IÇAMENTO DE CARGAS/PESSOAS COM GUINCHO
ANDRÉ DE SOUSA HIRABAE	905596	PLH 00968	SK-92A	TRANSPORTE DE CARGA EXTERNA COM LINHA CURTA E LINHA LONGA
AUGUSTO CESAR REZENDE TELLES	982223	PLH 01657	AW 139	IÇAMENTO DE CARGAS/PESSOAS COM GUINCHO
EDINAMAR SANTANA LIMA	849570	PLH 00732	EC175 B	TRANSPORTE DE CARGA EXTERNA COM LINHA CURTA E LINHA LONGA COMBATE A INCÊNDIOS COM LINHA CURTA E LONGA (BAMBI BUCKET)
			EC 225 LP	TRANSPORTE DE CARGA EXTERNA COM LINHA CURTA E LINHA LONGA

				COMBATE A INCÊNDIOS COM LINHA CURTA E LONGA (BAMBI BUCKET) DESCIDA DE RAPEL DE PESSOAS POR CABO
VINICIUS DO BEM OLIVEIRA	123376	PLH 02607	EC 225 LP	TRANSPORTE DE CARGA EXTERNA COM LINHA CURTA E LINHA LONGA DESCIDA DE RAPEL DE PESSOAS POR CABO COMBATE A INCÊNDIOS COM LINHA CURTA E LONGA (BAMBI BUCKET)
			EC175 B	TRANSPORTE DE CARGA EXTERNA COM LINHA CURTA E LINHA LONGA
EGON ZUCATTI BUTTNER	983510	PLH 00622	EC 225 LP	TRANSPORTE DE CARGA EXTERNA COM LINHA CURTA E LINHA LONGA DESCIDA DE RAPEL DE PESSOAS POR CABO COMBATE A INCÊNDIOS COM LINHA CURTA E LONGA (BAMBI BUCKET)
			EC 175 B	TRANSPORTE DE CARGA EXTERNA COM LINHA CURTA E LINHA LONGA
IAM ROZEMBERG	158883	PLH 03051	SK-92A	IÇAMENTO DE CARGAS/PESSOAS COM GUINCHO
IGOR DE BARROS FABBRI DOS REIS	146773	PLH 02936	SK-92A	IÇAMENTO DE CARGAS/PESSOAS COM GUINCHO
LUIZ HENRIQUE GARCEZ LOTUFO	705632	PLH 00882	EC 225 LP	TRANSPORTE DE CARGA EXTERNA COM LINHA CURTA E LINHA LONGA

			SK-92A	TRANSPORTE DE CARGA EXTERNA COM LINHA CURTA E LINHA LONGA
OSMAR BARBOSA DE SOUZA JÚNIOR	870212	PLH 00844	EC 225 LP	TRANSPORTE DE CARGA EXTERNA COM LINHA CURTA E LINHA LONGA
			SK-92A	TRANSPORTE DE CARGA EXTERNA COM LINHA CURTA E LINHA LONGA
NELSON LACOMBE	691626	PLH 00286	EC 225 LP	TRANSPORTE DE CARGA EXTERNA COM LINHA CURTA E LINHA LONGA COMBATE A INCÊNDIOS COM LINHA CURTA E LONGA (BAMBI BUCKET) DESCIDA DE RAPEL DE PESSOAS POR CABO
			SK-92A	TRANSPORTE DE CARGA EXTERNA COM LINHA CURTA E LINHA LONGA
MURILO SÉRGIO RIBEIRO ARANHA	479246	PLH 00168	EC 225 LP	TRANSPORTE DE CARGA EXTERNA COM LINHA CURTA E LINHA LONGA COMBATE A INCÊNDIOS COM LINHA CURTA E LONGA (BAMBI BUCKET)
			SK-92A	TRANSPORTE DE CARGA EXTERNA COM LINHA CURTA E LINHA LONGA
MARCELO DONIZETTI DA SILVA	145264	PLH 02276	EC175 B	TRANSPORTE DE CARGA EXTERNA COM LINHA CURTA E LINHA LONGA
RICARDO DA COSTA LOBATO	944926	PLH 02351	EC175 B	TRANSPORTE DE CARGA EXTERNA

				COM LINHA CURTA E LINHA LONGA
EDISON LUIZ DE CALDAS	752048	PLH 00855	EC175 B	TRANSPORTE DE CARGA EXTERNA COM LINHA CURTA E LINHA LONGA
ULISSES ZAGO	590893	PLH 01946	EC175 B	TRANSPORTE DE CARGA EXTERNA COM LINHA CURTA E LINHA LONGA
LUIZ GUSTAVO FRANCO MARCOS	107778	PLH 02688	EC175 B	TRANSPORTE DE CARGA EXTERNA COM LINHA CURTA E LINHA LONGA
NEWTON MACHADO BARRETO FILHO	101786	PLH 02236	EC175 B	TRANSPORTE DE CARGA EXTERNA COM LINHA CURTA E LINHA LONGA
GILBERTO PEREIRA JUNIOR	117782	PLH 00994	AW-139	IÇAMENTO DE CARGAS/PESSOAS COM GUINCHO
FERNANDO KUNZLER	133657	PLH 02761	AW-139	IÇAMENTO DE CARGAS/PESSOAS COM GUINCHO
			SK-92A	IÇAMENTO DE CARGAS/PESSOAS COM GUINCHO
GIORDANO DASSI	141238	PLH 02846	AW-139	IÇAMENTO DE CARGAS/PESSOAS COM GUINCHO
			SK-92A	IÇAMENTO DE CARGAS/PESSOAS COM GUINCHO
LUIZ ANDRÉ BRAZ SERAFIM	114026	PLH 00892	AW-139	IÇAMENTO DE CARGAS/PESSOAS COM GUINCHO
MARCELO RODRIGUES DA SILVA	172450	PLH 02245	EC 225 LP	TRANSPORTE DE CARGA EXTERNA COM LINHA CURTA E LINHA LONGA DESCIDA DE RAPEL DE PESSOAS POR CABO

				COMBATE A INCÊNDIOS COM LINHA CURTA E LONGA (BAMBI BUCKET)
JEFFERSON STWART DAS CHAGAS	117740	PLH 02187	EC175 B	TRANSPORTE DE CARGA EXTERNA COM LINHA CURTA E LINHA LONGA
MARCOS ROGÉRIO AMORIM	202903	PLH 02375	EC 225 LP	TRANSPORTE DE CARGA EXTERNA COM LINHA CURTA E LINHA LONGA COMBATE A INCÊNDIOS COM LINHA CURTA E LONGA (BAMBI BUCKET)
RODRIGO COSTA DE AZEVEDO	902536	PLH 01878	SK-92A	IÇAMENTO DE CARGAS/PESSOAS COM GUINCHO
MARCOS FELIPE MOREIRA DE CARVALHO	115343	PLH 02021	AW-139	IÇAMENTO DE CARGAS/PESSOAS COM GUINCHO
			SK-92A	IÇAMENTO DE CARGAS/PESSOAS COM GUINCHO
MAURICIO FALASCHI	109182	PLH 01858	SK-92A	IÇAMENTO DE CARGAS/PESSOAS COM GUINCHO
JOSE FERNANDO DE OLIVEIRA	103330	PLH 00727	EC 225 LP	TRANSPORTE DE CARGA EXTERNA COM LINHA CURTA E LINHA LONGA COMBATE A INCÊNDIOS COM LINHA CURTA E LONGA (BAMBI BUCKET)
CLEBER LOURENÇO GUMIERO	107290	PLH 01892	SK-92A	IÇAMENTO DE CARGAS/PESSOAS COM GUINCHO
DIOGO HOLANDA MENEZES MARTINS	115248	PLH 02220	AW 139 SK-92A	IÇAMENTO DE CARGAS/PESSOAS COM GUINCHO

FRANKLIN NOGUEIRA GONÇALVES JUNIOR	817460	PLH 00908	AW 139	IÇAMENTO DE CARGAS/PESSOAS COM GUINCHO
LUCIANO DEMETRIUS SIVIERI	169535	PLH 02685	EC175 B	TRANSPORTE DE CARGA EXTERNA COM LINHA CURTA E LINHA LONGA
RENAN BARBIERI	212256	PCH 05991	EC175 B	TRANSPORTE DE CARGA EXTERNA COM LINHA CURTA E LINHA LONGA
FELIPE DINIZ ALVES BOMFIM	130210	PLH 02686	SK-92A	IÇAMENTO DE CARGAS/PESSOAS COM GUINCHO
VIRGILIO FERREIRA NOVAIS	181502	PLA 16772	SK-92A	IÇAMENTO DE CARGAS/PESSOAS COM GUINCHO
VITOR CARLOS ANTUNES FILHO	187766	PLH 03344	SK-92A	IÇAMENTO DE CARGAS/PESSOAS COM GUINCHO

PARTE C – MANUTENÇÃO

RESERVADO

PARTE D – LIMITAÇÕES ADICIONAIS

D.1 Em hipótese alguma poderão ser transportados passageiros em operações com cargas externas.

D.2 As operações de rapel deverão ser realizadas somente com pessoas devidamente qualificadas para tal, sendo responsabilidade total da empresa permitir que somente tais pessoas tomem parte nesta operação.

D.3 As operações deverão ser conduzidas em período diurno e de acordo com as regras de voo visuais (VFR).

D.4 As operações deverão seguir os procedimentos descritos no Manual de Voo da Combinação Aeronave-Carga aprovado pela ANAC.

Brasília, ***data conforme assinatura eletrônica*****.**

DANIEL JUNKES NETO

Gerente Técnico de Certificação Substituto - GTCE

Documento assinado eletronicamente por **Daniel Junkes Neto**, **Gerente Técnico, Substituto(a)**, em 25/04/2025, às 10:02, conforme horário oficial de Brasília, com fundamento no art. 4º, do Decreto nº 10.543, de 13 de novembro de 2020.

A autenticidade deste documento pode ser conferida no site https://sei.anac.gov.br/sei/autenticidade, informando o código verificador **11458657** e o código CRC **F27C1C02**.

FEDERATIVE REPUBLIC OF BRAZIL

MINISTRY OF THE ARMY - PARACHUTE INFANTRY BRIGADE

GENERAL PENHA BRASIL PARACHUTE TRAINING CENTER

Military Paratrooper



Certificate

I hereby award **OFFICER CADET**

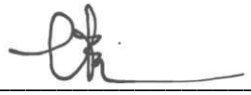
LUIZ HENRIQUE GARCEZ LOTUFO

this Certificate for having completed on **FEBRUARY 16, 1989** *the* **89/1**

Basic Paratrooper Course, thereby qualifying on this date as Military Paratrooper No. **48,445**

Commander of the General Penha Brasil Parachute Training Center

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



_____ Date: November 4, 2025.

REPÚBLICA FEDERATIVA DO BRASIL

MINISTÉRIO DO EXÉRCITO – BRIGADA DE INFANTARIA PÁRA – QUEDISTA

CENTRO DE INSTRUÇÃO PÁRA-QUEDISTA GENERAL PENHA BRASIL

Pára-quedista Militar



Diploma

Confiro ao ASPIRANTE A OFICIAL

LUIZ HENRIQUE GARCEZ LOTUFO

o presente Diploma, por ter concluido a 16 Fev 89 o 89/1 Curso Básico Pára-quedista, qualificando-se nesta data Pára-quedista Militar n.º 48.445

COMANDANTE DO CI Pqdt GPB

FEDERATIVE REPUBLIC OF BRAZIL

BRAZILIAN ARMY

Coastal and Anti-Aircraft Artillery School

Certificate of Completion of Training

I certify that Captain LUIZ HENRIQUE GARCEZ LOTUFO

completed on March 24, 1995 *the* Anti-Aircraft Artillery Training for Military Pilots *with* SATISFACTORY PERFORMANCE,

and is therefore granted this CERTIFICATE.

Rio de Janeiro, RJ, March 24, 1995

PAULO SÉRGIO MOREIRA DE CARVALHO - Colonel
Commander of the Coastal and Anti-Aircraft Artillery School

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: November 3, 2025.

REPÚBLICA FEDERATIVA DO BRASIL

EXÉRCITO BRASILEIRO

Escola de Artilharia de Costa e Antiaérea

Certificado de Conclusão de Estágio

Certifico que o Cap LUIZ HENRIQUE GARCEZ LOTUFO

concluiu a 24 Mar 95 *o* Estágio de Artilharia Antiaérea para Pilotos Militares *com* APROVEITAMENTO,

em virtude do que lhe é conferido o presente CERTIFICADO.

Rio de Janeiro, RJ, 24 Mar 95

PAULO SÉRGIO MOREIRA DE CARVALHO - Cel
Cmt da Es A Cos AAe

United States Army Aviation Center

Certifies that

CPT LUIZ LOTUFO

IS A
GRADUATE
OF THE

UH-60 AVIATOR QUALIFICATION COURSE, CLASS 98-15

In testimony whereof, and by authority vested in us, we do confer this

Diploma

Executed at Fort Rucker, Alabama, this 20TH *day of* APRIL 1998

DAVIS D. TINDOLL, JR.
COLONEL, AVIATION
DIRECTOR OF PLANS, TRAINING,
MOBILIZATION, AND SECURITY

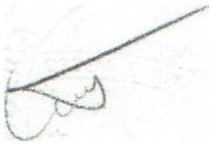
DANIEL J. PETROSKY
MAJOR GENERAL, USA
COMMANDING

USAAVNC(DPT) Fm 87, 1 Oct 77

MINISTRY OF DEFENSE
BRAZILIAN ARMY
CMSE CAVEX
TAUBATÉ AIR BASE

CHANGES SHEET
TAUBATÉ GARRISON
SHEET NO. 01

00111-5



NAME: LUIZ HENRIQUE GARCEZ LOTUFO
RANK: CAPTAIN
BRANCH (CORPS OR SERVICE): CAVALRY
IDENTITY NUMBER: 023260093-2
PERSONNEL CODE (CP): 26241-8

1st Semester of 1999
PERIOD: from January 1 to June 30

1ST PART

JANUARY - No Change

FEBRUARY - No Change

MARCH - No Change

APRIL - No Change

MAY - No Change

JUNE

- On the 30th (as per Change No. 001, published in Internal Bulletin No. 120), took part in the 1st class of the 12 km jungle march, including an overnight stay, on August 05, 1998, along the route PATUCA – PANIA – CHINIMBIMI.

- Pursuant to Order No. 035/DEP, of December 11, 1991, was appointed as Advising Officer of the CPrep CAS/99, for the 2nd Sergeants listed below, all from the Army Aviation Detachment:

- PAULO ROBERTO BATISTA BARROS.

- ALEXSANDRE DE VASCONCELOS MENDES.

- Pursuant to Order No. 035/DEP, of December 11, 1991, was appointed as Advising Officer of the CPrep CAS/99 course, assigned to 2nd Sgt MARCELO HENRIQUE DORFLINGER CARVALHO, of the Army Aviation Detachment.

- Completed the qualification program for the S-70 A-36 HM-2 (Black Hawk) aircraft, being certified as qualified for its operation.

- Is certified and authorized to perform operational missions as part of the Ecuador–Peru Military Observer Mission (MOMEP):

- Was qualified as Maintenance Pilot for the S-70 A-36 HM-2 (Black Hawk) aircraft, upon completion of the required qualification program.

- Reported on October 03, 1998 to begin a 19 (nineteen)-day leave period

- On September 09,1998, completed the Maintenance Pilot (Test Pilot) training course for the S-71A-36 Black Hawk aircraft.

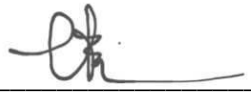
- On October 23, 1998, reported for duty upon completion of leave.

- Was notified of his Aircrew Medical Inspection date: July 08, 1998

- Flew a total of 93 hours during the period from June 23, 1998 to October 31, 1998.

**Glossary:*
CAVEX: Army Aviation Command
CMSE: Southeastern Military Command
CPrep CAS/99: Preparatory Course CAS/99
Sgt: Sergeant

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



_____ Date: November 4, 2025.

MINISTÉRIO DA DEFESA
EXÉRCITO BRASILEIRO
CMSE CAVEX
BASE DE AVIAÇÃO DE TAUBATÉ

FOLHA DE ALTERAÇÕES
GUARNIÇÃO DE TAUBATÉ
FOLHA Nº 01

00111-5

NOME: LUIZ HENRIQUE GARCEZ LOTUFO
POSTO (OU GRADUAÇÃO): CAPITÃO
ARMA (QUADRO OU SERVIÇO): CAVALARIA
IDENTIDADE: 023260093-2
CP: 26241-8

1º Semestre de 1999
PERÍODO: de 01 Jan a 30 Jun

1º PARTE
JANEIRO - Sem Alteração

FEVEREIRO - Sem Alteração

MARÇO - Sem Alteração

ABRIL - Sem Alteração

MAIO - Sem Alteração

JUNHO
- a 30, Adt Nr 001, BI Nr 120 - participou da 1ª turma da Marcha de 12 Km através selva, com pernoite, no dia 05 Ago 98, no itinerário PATUCA - PANIA - CHINIMBIMI.

- de acordo com a Portaria nº 035/DEP, de 11 Dez 91, foi nomeado como Oficial Orientador do CPrep CAS/99, dos 2º Sgt alunos abaixo relacionados, todos do Dst Av Ex:
- PAULO ROBERTO BATISTA BARROS.
- ALEXSANDRE DE VASCONCELOS MENDES.

- de acordo com a Portaria nº 035/DEP, de 11 Dez 91, foi nomeado como Oficial Orientador do CPrep CAS/99, do 2º Sgt MARCELO HENRIQUE DORFLINGER CARVALHO, do Dst Av Ex.

- cumpriu a plano de habilitação para aeronave S-70 A-36, HM-2 (Black Hawk), sendo considerado apto para a operação da mesma.

- encontra-se habilitado ao cumprimento de missões operacionais, junto à Missão de Observadores Militares Equador - Peru (MOMEP):

- foi habilitado como Piloto de Manutenção da aeronave S-70 A-36, HM-2 (Black Hawk), após cumprido o plano de habilitação previsto.

- apresentou-se em 03 Out 98, por entrar em gozo de licença por 19 (dezenove) dias.

- concluiu em 09 Set 98, o estágio de Piloto de Manutenção (Test Pilot) da aeronave 5-71A-36 Black Hawk.

- apresentou-se em 23 Out 98, por retornar de licença.

- foi informado sua data de Inspeção de Saúde para Aeronavegantes: 08 Jul 98.

- voou no período de 23 Jun 98 à 31 Out 98, o seguinte total de horas: 93,0.

MINISTRY OF DEFENSE
BRAZILIAN ARMY
CMSE CAvEx
ARMY AVIATION TRAINING CENTER
(Military Aviation School / 1919)

C E R T I F I C A T E

I hereby certify that Cavalry Major Luiz Henrique Garcez Lotufo, completed the Night Vision Goggles Flight Training - Level 2 on October 05, 2007, with satisfactory performance and is, therefore, granted this Certificate.

Headquarter in Taubaté - São Paulo, October 05, 2007.

LUIZ FERNANDO ESTORILHO BAGANHA - *Lieutenant Colonel*
Commander - CIAvEx
(Army Aviation Training Center)

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: November 6, 2025.

MINISTÉRIO DA DEFESA
EXÉRCITO BRASILEIRO
CMSE - CAvEx
CENTRO DE INSTRUÇÃO DE AVIAÇÃO DO EXÉRCITO
(Escola de Aviação Militar / 1919)

C E R T I F I C A D O

Certifico que o Maj Cav Luiz Henrique Garcez Lotufo concluiu, em 05 de outubro de 2007, o Estágio de Pilotagem com Óculos de Visão Noturna – 2° Nível, com aproveitamento, em virtude do que, lhe é conferido o presente certificado.

Quartel em Taubaté-SP, 05 de outubro de 2007.

LUIZ FERNANDO ESTORILHO BAGANHA – Ten Cel
Comandante - CIAvEx

FEDERATIVE REPUBLIC OF BRAZIL
BRAZILIAN ARMY

ARMY AVIATION TRAINING CENTER

CERTIFICATE

I certify that Cavalry Captain LUIZ HENRIQUE GARCEZ LOTUFO

completed on June 27, 1997 the Combat Pilot Course/97

with Satisfactory Performance

and is therefore granted this Certificate.

Taubaté / São Paulo, June 27 / 19 97

EDUARDO CUNHA DA CUNHA - Lieutenant Colonel, Cavalry
Commander CIAVEx *(Army Aviation Training Center)*

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: November 5, 2025.

REPÚBLICA FEDERATIVA DO BRASIL
EXÉRCITO BRASILEIRO

CENTRO DE INSTRUÇÃO DE AVIAÇÃO DO EXÉRCITO

DIPLOMA

Certifico que o Capitão de Cavalaria LUIZ HENRIQUE GARCEZ LOTUFO

concluiu a 27 de junho de 1997 *o curso* de Piloto de Combate / 97

com aproveitamento

em virtude do que lhe é conferido o presente Diploma.

Taubaté / SP, 27 / junho / 19 97

EDUARDO CUNHA DA CUNHA - Ten Cel Cav
Cmt CIAvEx

MINISTRY OF DEFENSE
BRAZILIAN ARMY
CMSE - CAvEx
ARMY AVIATION TRAINING CENTER
(MILITARY AVIATION SCHOOL - 1919)

CERTIFICATE

I hereby certify that **Cavalry Major LUIZ HENRIQUE GARCEZ LOTUFO** completed the **ADVANCED AVIATION COURSE** on October 28, 2005, with satisfactory performance and is, therefore, granted this Certificate.

Headquarter in Taubaté - São Paulo, October 28, 2005.

JOSÉ CARLOS BRAGA DE AVELLAR - Lieutenant Colonel
Commander - CIAvEx *(Army Aviation Training Center)*

ADVANCED AVIATION COURSE – 2005 CURRICULUM

Student: Cavalry Major LUIZ HENRIQUE GARCEZ LOTUFO

Subject: 1 Advanced Fundamentals for the Employment of Army Aviation (FAE)

Teaching Units	Workload Day	Night
1 Photointerpretation	30	0
2 Electronic Warfare	33	0
3 Flight Safety	02	0
4 Air-to-Surface Operations	26	0
5 Air Defense	37	0

Subject: 2 Tactical Employment of Army Aviation (ETA)

Teaching Units	Day	Night
1 Tactical Employment of Army Aviation	70	12
2 Aviation Logistics	52	0
3 Coordination and Control of Airspace	44	0

Subject: 3 Complementary Education

Teaching Units	Day	Night
1 Current Affairs/Lectures	10	0
2 Reading Program	8	0
3 Interdisciplinary Project	60	0
4 Military Physical Training	40	0
5 Command's Disposal, Free Time, and Administrative Measures	96	0
6 Assessments	12	0

Total Daytime Instruction Workload: 520
Total Nighttime Instruction Workload: 12

Taubaté - São Paulo, October 28, 2005

JOSÉ CARLOS BRAGA DE AVELLAR - Lieutenant Colonel
Commander - CIAvEx
(Army Aviation Training Center)

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



_____ Date: November 07, 2025.

MINISTÉRIO DA DEFESA
EXÉRCITO BRASILEIRO
CMSE - CAVEX
CENTRO DE INSTRUÇÃO DE AVIAÇÃO DO EXÉRCITO
(ESCOLA DE AVIAÇÃO MILITAR – 1919)

DIPLOMA

Certifico que o **Maj Cav LUIZ HENRIQUE GARCEZ LOTUFO** concluiu, em 28 de outubro de 2005, o **CURSO AVANÇADO DE AVIAÇÃO,** com aproveitamento, em virtude do que lhe é conferido o presente diploma.

Quartel em Taubaté-SP, 28 de outubro de 2005.

JOSÉ CARLOS BRAGA DE AVELLAR – Ten Cel
Comandante do CIAvEx

CURSO AVANÇADO DE AVIAÇÃO - GRADE CURRICULAR 2005

Discente: Maj Cav LUIZ HENRIQUE GARCEZ LOTUFO

Disciplina : 1 Fundamentos Avançados para o Emprego da Av Ex (FAE) **Carga Horária**

Unidade Didática		Diur	Not
1	Fotointerpretação	30	0
2	Guerra Eletrônica	33	0
3	Segurança de Vôo	02	0
4	Operações Ar-Superfície	26	0
5	Defesa Aeroespacial	37	0

Disciplina : 2 Emprego Tático da Aviação do Exército (ETA)

Unidade Didática		Diur	Not
1	Emprego Tático da Aviação do Exército	70	12
2	Logística de Aviação	52	0
3	Coordenação e Controle do Espaço Aéreo	44	0

Disciplina : 3 Complementação do Ensino

Unidade Didática		Diur	Not
1	Assuntos da atualidade/Palestra	10	0
2	Programa de Leitura	8	0
3	Projeto Interdisciplinar	60	0
4	Treinamento Físico Militar	40	0
5	A Disposição do Comando, Tempos Livres e Medidas Administrativas	96	0
6	Avaliações	12	0

Tempo Total de Instrução Diurna: 520
Tempo Total de Instrução Noturna: 12

Taubaté-SP, 28 de outubro de 2005.

JOSÉ CARLOS BRAGA DE AVELLAR – Ten Cel
Cmt CIAvEx

FEDERATIVE REPUBLIC OF BRAZIL
BRAZILIAN ARMY

ARMY AVIATION TRAINING CENTER

CERTIFICATE of Completion of Training

I certify that Cavalry Captain LUIZ HENRIQUE GARCEZ LOTUFO

completed on April 18, 1997 *the* Tactical Pilot Training/97

with Satisfactory Performance

and is, therefore, granted this Certificate.

Taubaté / São Paulo, April 18 / 19 97

EDUARDO CUNHA DA CUNHA - Lieutenant Colonel, Cavalry
Commander CIAVEx *(Army Aviation Training Center)*

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: November 6, 2025.

REPÚBLICA FEDERATIVA DO BRASIL
EXÉRCITO BRASILEIRO

CENTRO DE INSTRUÇÃO DE AVIAÇÃO DO EXÉRCITO

Certificado de Conclusão de Estágio

Certifico que o Cap Cav LUIZ HENRIQUE GARCEZ L0TUF0

concluiu a 18 de abril de 1997 *o* Estágio de Piloto Tático/ 97

com aproveitamento

em virtude do que lhe é conferido o presente Certificado.

Taubaté / SP, 18 / abril / 19 97

EDUARDO CUNHA DA CUNHA - Ten Cel Cav
Cmt CIAvEx

MINISTRY OF AERONAUTICS

1st/11th Aviation Group

CERTIFICATE

This Certificate is awarded to **1ST LIEUTENANT CADET**

LUIZ HENRIQUE GARCEZ LOTUFO

for having completed, with satisfactory performance, on **JUNE 4, 1992,**

the UH-50 HELICOPTER PILOT Course

1ST/11TH AVIATION GROUP

Commander of the 1st/11th Aviation Group

Commander, 1st/11th Aviation Group

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: November 5, 2025.

MINISTÉRIO DA AERONÁUTICA

1.º/11.º GAv

CERTIFICADO

O presente Certificado é conferido ao 1º TEN CAV

LUIZ HENRIQUE GAREZ LOTUFO

por haver concluido, com aproveitamento, em 04 JUN 92 , o Curso de

PILOTO DE HELICÓPTERO UH-50

1º/11º GRUPO DE AVIAÇÃO

Cmt do 1.º/11.º GAv

Ivan V. Siqueira Júnior

Cmt 1.º/11.º GAv

CERTIFICATE

The Air Force Academy hereby awards this Certificate

to 1st Cavalry Lieutenant LUIZ HENRIQUE GARCEZ LOTUFO

for having completed the Basic Theoretical Preparation Course for Brazilian Army Helicopter Pilots.

Campo Fontenelle, on November 22, 1991

PAULO FRANCISCO BLOCK - Lieutenant Colonel, Aviation
Head of the Teaching Division

Air Brigadier - JOEL TANG
Commander of the Air Force Academy

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: November 5, 2025.

CERTIFICADO

A Academia da Força Aérea confere o presente Certificado ao 1º Ten Cav LUIZ HENRIQUE GARCEZ LOTUFO por haver concluído o curso Teórico Básico de Preparação para Pilotos de Helicóptero do Exército Brasileiro.

Campo Fontenelle, em 22 de NOV de 1991

PAULO FRANCISCO BLOCK-Ten Cel Av
Chefe da Divisão de Ensino

Brig do Ar – JOEL TANG
Comandante da Academia da Força Aérea

MINISTRY OF DEFENSE
BRAZILIAN ARMY
CMSE - CAvEx
ARMY AVIATION TRAINING CENTER
(Military Aviation School / 1919)

CERTIFICATE

I hereby certify that Cavalry Major LUIZ HENRIQUE GARCEZ LOTUFO, completed the Night Vision Goggles Flight Training on May 11, 2007, with satisfactory performance and is, therefore, granted this Certificate.

Headquarter in Taubaté - São Paulo, May 11, 2007.

LUIZ FERNANDO ESTORILHO BAGANHA - *Lieutenant Colonel*
Commander - CIAvEx
(Army Aviation Training Center)

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: November 6, 2025.

MINISTÉRIO DA DEFESA
EXÉRCITO BRASILEIRO
CMSE - CAvEx
CENTRO DE INSTRUÇÃO DE AVIAÇÃO DO EXÉRCITO
(Escola de Aviação Militar / 1919)

CERTIFICADO

Certifico que o Maj Cav LUIZ HENRIQUE GARCEZ LOTUFO concluiu, em 11 de maio de 2007, o Estágio de Pilotagem com Óculos de Visão Noturna, com aproveitamento, em virtude do que, lhe é conferido o presente certificado.

Quartel em Taubaté-SP, 11 de maio de 2007.

LUIZ FERNANDO ESTORILHO BAGANHA – Ten Cel
Comandante - CIAvEx

FEDERATIVE REPUBLIC OF BRAZIL
BRAZILIAN ARMY
JUNGLE WARFARE TRAINING CENTER

TRAINING COMPLETION CERTIFICATE

I hereby certify that Cavalry Captain **LUIZ HENRIQUE GARCEZ LOTUFO** completed the **JUNGLE ADAPTATION TRAINING FOR MOMEP MILITARY PERSONNEL** on June 26, 1998, with satisfactory performance, and is, therefore, granted this Certificate.

**MOMEP: Military Observer Mission Ecuador-Peru*

Manaus-Amazonas, June 26, 1998.

LUIZ ALBERTO ALVES ROLLA - Lieutenant Colonel, Infantry QEMA *(Army General Staff)*
Commander - CIGS *(Jungle Warfare Training Center)*

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: November 5, 2025.

REPÚBLICA FEDERATIVA DO BRASIL
EXÉRCITO BRASILEIRO
CENTRO DE INSTRUÇÃO DE GUERRA NA SELVA

CERTIFICADO DE CONCLUSÃO DE ESTÁGIO

Certifico que o **Cap Cav LUIZ HENRIQUE GARCEZ LOTUFO** concluiu, a 26 de junho de 1998, o **ESTÁGIO DE ADAPTAÇÃO À SELVA PARA MILITARES DA MOMEP**, com aproveitamento, em virtude do que lhe é conferido o presente CERTIFICADO.

Manaus-AM, 26 de junho de 1998.

LUIZ ALBERTO ALVES ROLLA – Ten Cel Inf QEMA
Comandante do CIGS

BRAZILIAN NAVY
COMMAND OF THE NAVAL AIR FORCE
TRAINING AND INSTRUCTION CENTER

TRAINING COMPLETION CERTIFICATE

The Commander of the Naval Air Training and Instruction Center, in the exercise of his authority, hereby awards this certificate to Major 28.241-8 LUIZ HENRIQUE GARCEZ LOTUFO, for having completed, with satisfactory performance, the training at the Underwater Aircraft Escape Training Unit (UTEPAS), conducted on March 2, 2005.

São Pedro da Aldeia, March 2, 2005.

JOÃO ROBERTO CAVALCANTI VIEIRA
Captain (Naval Infantry)
Commander

UNDERWATER AIRCRAFT ESCAPE TRAINING UNIT
" UTEPAS "

STUDENT: Major 28.241-8 Luiz Henrique Garcez Lotufo

SUBJECTS	WORKLOAD
- THEORETICAL TRAINING AT THE UNDERWATER AIRCRAFT ESCAPE TRAINING UNIT	02
- PRACTICAL TRAINING IN THE MODULE OF THE UNDERWATER AIRCRAFT ESCAPE TRAINING UNIT	02
- PRACTICAL TRAINING AT THE SELF-CONTAINED BREATHING UNIT	02
TOTAL WORKLOAD	**06 HOURS**
EVALUATION	**SATISFACTORY**

AUTHENTICATED BY: JORGE LUIZ FERNANDES **TOMAZ**
Lieutenant Captain, Naval Infantry
Head of the Training Division

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: November 6, 2025.

MARINHA DO BRASIL
COMANDO DA FORÇA AERONAVAL
CENTRO DE INSTRUÇÃO E ADESTRAMENTO AERONAVAL

CERTIFICADO DE CONCLUSÃO DE TREINAMENTO

O Comandante do Centro de Instrução e Adestramento Aeronaval, no uso de suas atribuições, confere o presente certificado ao Major 28.241-8 LUIZ HENRIQUE GARCEZ LOTUFO, por ter concluído com aproveitamento o treinamento na Unidade de Treinamento e Escape para Aeronave Submersa (UTEPAS), realizado no dia 02 de março de 2005.

São Pedro da Aldeia em 02 de março de 2005.

JOÃO ROBERTO CAVALCANTI VIEIRA
Capitão-de-Mar-e-Guerra
Comandante

UNIDADE DE TREINAMENTO DE ESCAPE PARA AERONAVE SUBMERSA
" UTEPAS "

ALUNO: Major 28.241-8 LUIZ HENRIQUE GARCEZ LOTUFO

DISCIPLINAS	CARGA HORÁRIA
- ADESTRAMENTO TEÓRICO NA UNIDADE DE TREINAMENTO DE ESCAPE PARA AERONAVE SUBMERSA.....	02
- ADESTRAMENTO PRÁTICO NO MÓDULO DA UNIDADE DE TREINAMENTO DE ESCAPE PARA AERONAVE SUBMERSA.....	02
- ADESTRAMENTO PRÁTICO NA UNIDADE DE RESPIRAÇÃO AUTÔNOMA.....	02
- CARGA HORÁRIA TOTAL	**06 HORAS**
CONCEITO	**SATISFATÓRIO**

AUTENTICADO POR: JORGE LUIZ FERNANDES ***TOMAZ***
Capitão-Tenente (FN)
Enc. da Div. de Treinamentos

WORLDWIDE
CUSTOMER SERVICE TRAINING

CERTIFICATE

Cap Luiz Henrique Garcez Lotufo

has Satisfactorily Completed

A One (1) Week S-70 Maintenance Managers Course

October 11, 2002
DATE

James F. Oram
Manager, Customer Training

Sikorsky
A United Technologies Company

G125

MINISTRY OF AERONAUTICS
DEPARTMENT OF CIVIL AVIATION

AIRCRAFT ACCIDENT INVESTIGATION AND PREVENTION DIVISION

CERTIFICATE

We hereby certify that LUIZ HENRIQUE GARCEZ LOTUFO

completed the FLIGHT SAFETY TRAINING

São Paulo, August 13, 1995.

DOUGLAS FERREIRA MACHADO - AVIATION COLONEL
HEAD OF DIPAA – DAC
**DIPAA: Aircraft Accident Investigation and Prevention Division*
DAC: Department of Civil Aviation

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: November 5, 2025.

MINISTÉRIO DA AERONÁUTICA
DEPARTAMENTO DE AVIAÇÃO CIVIL

DIVISÃO DE INVESTIGAÇÃO E PREVENÇÃO DE ACIDENTES AERONÁUTICOS

CERTIFICADO

Certificamos que LUIZ HENRIQUE GARCEZ LOTUFO

concluiu o ESTÁGIO DE SEGURANÇA DE VÔO

São Paulo, 13 / agosto / 1995.

DOUGLAS FERREIRA MACHADO - CEL.-AV
CHEFE DA DIPAA - DAC

BHS

TRAINING CERTIFICATE

CHETA (RBHA 135) No. 9809-01

ISO 9001:2000 QUALITY SYSTEM

We hereby certify that

Luiz Henrique Garcez Lotufo

completed the training:

Ground School EC225 - 2014 - Initial with satisfactory performance.

68 hours

01/06/2014 to 01/17/2014

BHS

Fernando Sousa Bezerra
ANAC 532143 - CPF 1705811876
Operations Manager
BHS - Brazilian Helicopters Services Taxi Aéreo S/A
Fernando.bezerra@chc.ca

**ANAC: National Civil Aviation Agency*

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: November 5, 2025.

BHS

CERTIFICADO DE TREINAMENTO

CHETA (RBHA 135) Nº 9809-01

ISO 9001:2000 QUALITY SYSTEM

Certificamos que

Luiz Henrique Garcez Lotufo

concluiu com aproveitamento o treinamento:

Ground School EC225 - 2014 - Inicial

68 horas

06/01/2014 a 17/01/2014

Fernando Sousa Bezerra
ANAC 532143 – CPF 1705811876
Operations Manager/ Gerente de Operações
BHS – Brazilian Helicopters Services Taxi Aéreo S/A
Fernando.bezerra@chc.ca

TRAINING CERTIFICATE

CHETA (RBHA 135) No. 9809-01

We hereby certify that

Luiz Henrique Garcez Lotufo

completed the training:

EC225 – Simulator 2014 - Initial

40 hours

01/18/2014 to 02/14/2014

Pilot Flying - 20 Hours
Pilot Not Flying -20 Hours

Fernando Sousa Bezerra
ANAC 532143 - CPF 1705811876
Operations Manager
BHS - Brazilian Helicopters Services Taxi Aéreo S/A
Fernando.bezerra@chc.ca

**ANAC: National Civil Aviation Agency*

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: November 6, 2025.

BHS

CERTIFICADO DE TREINAMENTO

CHETA (RBHA 135) Nº 9809-01

ISO 9001:2000 QUALITY SYSTEM

Certificamos que

Luiz Henrique Garcez Lotufo

concluiu com aproveitamento o treinamento:

EC225 – Simulador 2014 - Inicial

40 horas

18/01/2014 a 14/02/2014

PF 20 hs
PNF 20 hs

Fernando Sousa Bezerra
ANAC 532143 – CPF 1705811876
Operations Manager/ Gerente de Operações
BHS – Brazilian Helicopters Services Taxi Aéreo S/A
Fernando.bezerra@chc.ca

AERO CLUB OF SÃO PAULO

SCHOOL OF CIVIL AVIATION

We hereby certify that Mr. Luiz Henrique Garcez Lotufo,
completed the approved INVA-Airplane Flight Instructor course,
obtaining the corresponding license and/or qualification, after passing
the regulatory examinations of the Department of Civil Aviation of
the Ministry of Aeronautics.

São Paulo, April 9, 19 94

Technical Director

President Director

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: November 6, 2025.

AEROCLUBE DE SÃO PAULO

ESCOLA DE AVIAÇÃO CIVIL

Certificamos que o(a) Sr.(a) Luiz Henrique Garcez Lotufo,

concluiu o curso homologado de INVA - Instrutor de Vôo de Avião,

obtendo a licença e/ou qualificação correspondente, após aprovação nos exames regulamentares do departamento de aviação civil do Ministério da Aeronáutica.

São Paulo, 09 *de* Abril *de 19* 94

Diretor Técnico

Diretor Presidente

This is to certify that

Luiz Henrique Garcez Lotufo

attended a course at ODITC/3t Enermech

and has been assessed against, and met the outcomes of, the following OPITO-approved standard:

Helicopter Underwater Escape Training (HUET) with Compressed Air Emergency Breathing System (CA-EBS)

5295

Awarded on 3rd September 2025

Expiry Date 2nd September 2029
Unique Certificate No OPITOUI1MWWR6MF
OPITO Learner No L00735188

Stephen Marcos Jones
Chief Executive Officer

OPITO UCN 97335095151215126717

Falck Safety Services

LUIZ HENRIQUE GARCEZ LOTUFO

IDENTIDADE: 0232600932 ME / CPF: 081.112.348-05

Has been assessed against and met the learning outcomes of the OPITO-approved

HUET - Helicopter Underwater Escape Training

HUET - Helicopter Underwater Escape Training

CONTEÚDO PROGRAMÁTICO: Viagem de Helicóptero, Emergências com Helicóptero, Escape de Helicóptero Submerso incluindo Sistema de Respiração de Emergência (EBS).

CONTENT: Helicopter travel, Helicopter Emergencies, Helicopter Escape Including Emergency Breathing Systems (EBS).

Total Optimum Contact Time: 8 hrs.
Technical Reference: OPITO Registration Code: 5095.

Período / *Period*: 15.12.2015 - 15.12.2015 **Emitido em / Emitted: 15.12.2015**
Válido até / *Expiry date:* 14.12.2019

Vitor Aguiar Thomaz MTE/RJ0027390

Gerente de Operações / *Operations Manager*

Lairton de Jesus Ramos CREA:1995120475 / CPF: 848.333.437-20 (Engenheiro de Segurança/ Security Engineer)

Responsável Técnico / *Technical Responsible*

Falck Safety Services
Av. Pref. Aristeu F. da Silva, 1.277 - N. Cavaleiros - Macaé, RJ
PHONE: 55 22 2105-3361 FAX: 55 22 2105-3353 WEB: www.falck.com

Falck
Safety Services

094113G

SYMPOSIUM ON
FLIGHT SAFETY



SAFETY IN YOUR HANDS

ARMY AVIATION COMMAND

CERTIFICATE

The Army Aviation Commander confers this certificate to

Mr. Major Luiz Henrique Garcez Lotufo

for his participation in the

XII SYMPOSIUM ON FLIGHT SAFETY

Taubaté, August 2003

Brigadier General Jeannot Jansen da Silva Filho
Army Aviation Commander

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: November 6, 2025.

SIMPÓSIO DE SEGURANÇA DE VÔO

XII



A SEGURANÇA EM SUAS MÃOS

COMANDO DE AVIAÇÃO DO EXÉRCITO

CERTIFICADO

O Comandante de Aviação do Exército confere a (o)

Ilmo Sr Maj Luiz Henrique Garcez Lotufo

o presente certificado, por sua participação no

XII SIMPÓSIO DE SEGURANÇA DE VÔO

Taubaté, agosto de 2003

Gen Bda Jeannot Jansen da Silva Filho
Comandante de Aviação do Exército

MINISTRY OF DEFENSE
BRAZILIAN ARMY
MILITARY COMMAND OF THE AMAZON

SYMPOSIUM ON COMMAND AND CONTROL IN RESISTANCE

The Military Command of the Amazon confers this Certificate to ***Cavalry Major Luiz Henrique Garcez Lotufo*** *of CAVEX (Army Aviation Command) for his participation in the First Symposium on Command and Control in Resistance Strategy, held from November 8 to 12, 2004, at the headquarters of this Command in the city of Manaus-AM.*

Prayer of the Jungle Warrior

"Lord! You who commanded the jungle warrior:
'Overcome all your opponents!',
give us today, from the forest,
the sobriety to endure,
the patience to ambush
the perseverance to survive,
the cunning to deceive,
the faith to resist and prevail!
And grant us also, Lord:
the hope and certainty of return,
but if, defending this Brazilian Amazon,
we must perish, O God!,
Let us do so with dignity
and deserve victory! Jungle!"

(HUMBERTO BATISTA LEAL - Lieutenant Colonel)

THE JUNGLE UNITES US!



EDUARDO DIAS DA COSTA **VILLAS BÔAS** - Brigadier General
Chief of Staff - Military Command of the Amazon

ALL FOR THE AMAZON!

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: November 6, 2025.

MINISTÉRIO DA DEFESA
EXÉRCITO BRASILEIRO
COMANDO MILITAR DA AMAZÔNIA

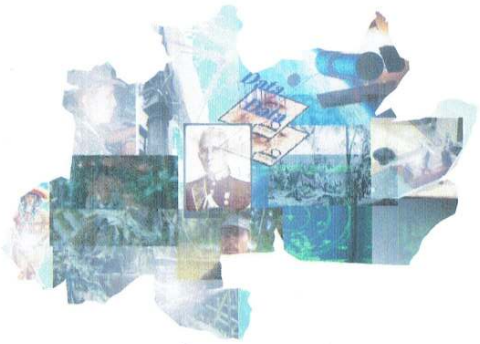
SIMPÓSIO DE COMANDO E CONTROLE NA RESISTÊNCIA

O Comando Militar da Amazônia confere este Certificado a o **Maj Cav Luiz Henrique Garcez Lotufo** *do* **CAvEx**, *por sua participação no Primeiro Simpósio de Comando e Controle na Estratégia da Resistência, no período de 08 a 12 de novembro de 2004, na sede deste Comando, na cidade de Manaus-AM.*

Oração do Guerreiro de Selva

"Senhor! Tu que ordenaste ao guerreiro da selva:
'Sobrepujai todos os vossos oponentes!',
dai-nos hoje da floresta
a sobriedade para persistir
a paciência para emboscar
a perseverança para sobreviver,
a astúcia para dissimular
a fé para resistir e vencer!
E dai-nos também, Senhor:
a esperança e a certeza do retorno,
mas se defendendo esta brasileira Amazônia
tivermos que perecer, ó Deus!,
que o façamos com dignidade
e mereçamos a vitória! Selva!"
(Ten Cel HUMBERTO BATISTA LEAL)

A SELVA NOS UNE !



EDUARDO DIAS DA COSTA **VILLAS BÔAS** – Gen Bda
Chefe do Estado-Maior do CMA

TUDO PELA AMAZÔNIA!

ACRO
BRAZILIAN ASSOCIATION OF AEROBATICS AND AIR COMPETITIONS

Certificate

We hereby award this certificate to LUIZ HENRIQUE GARCEZ LOTUF

for having competed in the Sports category in the 2nd Stage of the 11th Brazilian Aerobatic Championship, held from June 5 to 10, 1995.

Ribeirão Preto, June 10, 1995

President

Director

Director

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: November 6, 2025.

ACRO

ACRO
ASSOCIAÇÃO BRASILEIRA DE ACROBACIA E COMPETIÇÕES AÉREAS

Diploma

Conferimos o presente diploma à LUIZ HENRIQUE GARCEZ LOTUFO

por haver competido na categoria esporte na 2º Etapa do 11º Campeonato Brasileiro de Acrobacia Aérea no período de 05 à 10 de junho de 1995.

Ribeirão Preto, 10 *de* junho *de* 1995

Presidente

Diretor

Diretor

MINISTRY OF AERONAUTICS
DEPARTMENT OF CIVIL AVIATION

AIRCRAFT ACCIDENT INVESTIGATION AND PREVENTION DIVISION

CERTIFICATE

We hereby certify that LUIZ HENRIQUE GARCEZ LOTUFO

completed the Flight Safety Seminar for Executive Aviation.

SÃO PAULO, 08 / 03 / 94

DOUGLAS Ferreira Machado - Aviation Colonel
HEAD OF DIPAA – DAC
**DIPAA: Aircraft Accident Investigation and Prevention Division*
DAC: Department of Civil Aviation

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: November 6, 2025.

MINISTÉRIO DA AERONAÚTICA
DEPARTAMENTO DE AVIAÇÃO CIVIL

DIVISÃO DE INVESTIGAÇÃO E PREVENÇÃO DE ACIDENTES AERONÁUTICOS

CERTIFICADO

Certifico que LUIZ HENRIQUE GARCEZ LOTUFO

concluiu o Seminário de Segurança de Vôo para a Aviação Executiva.

SP 03 / 08 / 94

Douglas F. Machado Ten Cel

DOUGLAS Ferreira Machado - Ten.-Cel.-Av
CHEFE DA DIPAA - DAC

FEDERATIVE REPUBLIC OF BRAZIL
BRAZILIAN ARMY

ARMY AVIATION TRAINING CENTER

CERTIFICATE

I certify that Cavalry Captain LUIZ HENRIQUE GARCEZ LOTUFO

completed on June 27, 1997 the Combat Pilot Course/97

with Satisfactory Performance

and is therefore granted this Certificate.

Taubaté / São Paulo, June 27 / 19 97

EDUARDO CUNHA DA CUNHA - Lieutenant Colonel, Cavalry
Commander CIAVEx *(Army Aviation Training Center)*

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: November 5, 2025.

REPÚBLICA FEDERATIVA DO BRASIL
EXÉRCITO BRASILEIRO

CENTRO DE INSTRUÇÃO DE AVIAÇÃO DO EXÉRCITO

DIPLOMA

Certifico que o Capitão de Cavalaria LUIZ HENRIQUE GARCEZ LOTUFO

concluiu a 27 de junho de 1997 *o curso* de Piloto de Combate / 97

com aproveitamento

em virtude do que lhe é conferido o presente Diploma.

Taubaté / SP, 27 / junho / 19 97

EDUARDO CUNHA DA CUNHA - Ten Cel Cav
Cmt CIAvEx

MINISTRY OF DEFENSE
BRAZILIAN ARMY
CMSE - CAvEx
ARMY AVIATION TRAINING CENTER
(MILITARY AVIATION SCHOOL - 1919)

CERTIFICATE

I hereby certify that **Cavalry Major LUIZ HENRIQUE GARCEZ LOTUFO** completed the **ADVANCED AVIATION COURSE** on October 28, 2005, with satisfactory performance and is, therefore, granted this Certificate.

Headquarter in Taubaté - São Paulo, October 28, 2005.

JOSÉ CARLOS BRAGA DE AVELLAR - Lieutenant Colonel
Commander - CIAvEx *(Army Aviation Training Center)*

ADVANCED AVIATION COURSE – 2005 CURRICULUM

Student: Cavalry Major LUIZ HENRIQUE GARCEZ LOTUFO

Subject: 1 Advanced Fundamentals for the Employment of Army Aviation (FAE)

Teaching Units	Workload Day	Night
1 Photointerpretation	30	0
2 Electronic Warfare	33	0
3 Flight Safety	02	0
4 Air-to-Surface Operations	26	0
5 Air Defense	37	0

Subject: 2 Tactical Employment of Army Aviation (ETA)

Teaching Units	Day	Night
1 Tactical Employment of Army Aviation	70	12
2 Aviation Logistics	52	0
3 Coordination and Control of Airspace	44	0

Subject: 3 Complementary Education

Teaching Units	Day	Night
1 Current Affairs/Lectures	10	0
2 Reading Program	8	0
3 Interdisciplinary Project	60	0
4 Military Physical Training	40	0
5 Command's Disposal, Free Time, and Administrative Measures	96	0
6 Assessments	12	0

Total Daytime Instruction Workload: 520
Total Nighttime Instruction Workload: 12

Taubaté - São Paulo, October 28, 2005

JOSÉ CARLOS BRAGA DE AVELLAR - Lieutenant Colonel
Commander - CIAvEx
(Army Aviation Training Center)

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



_____ Date: November 07, 2025.

MINISTÉRIO DA DEFESA
EXÉRCITO BRASILEIRO
CMSE - CAVEX
CENTRO DE INSTRUÇÃO DE AVIAÇÃO DO EXÉRCITO
(ESCOLA DE AVIAÇÃO MILITAR – 1919)

DIPLOMA

Certifico que o **Maj Cav LUIZ HENRIQUE GARCEZ LOTUFO** concluiu, em 28 de outubro de 2005, o **CURSO AVANÇADO DE AVIAÇÃO,** com aproveitamento, em virtude do que lhe é conferido o presente diploma.

Quartel em Taubaté-SP, 28 de outubro de 2005.

JOSÉ CARLOS BRAGA DE AVELLAR – Ten Cel
Comandante do CIAvEx

CURSO AVANÇADO DE AVIAÇÃO - GRADE CURRICULAR 2005

Discente: Maj Cav LUIZ HENRIQUE GARCEZ LOTUFO

Disciplina : 1 Fundamentos Avançados para o Emprego da Av Ex (FAE) **Carga Horária**

Unidade Didática		Diur	Not
1	Fotointerpretação	30	0
2	Guerra Eletrônica	33	0
3	Segurança de Vôo	02	0
4	Operações Ar-Superfície	26	0
5	Defesa Aeroespacial	37	0

Disciplina : 2 Emprego Tático da Aviação do Exército (ETA)

Unidade Didática		Diur	Not
1	Emprego Tático da Aviação do Exército	70	12
2	Logística de Aviação	52	0
3	Coordenação e Controle do Espaço Aéreo	44	0

Disciplina : 3 Complementação do Ensino

Unidade Didática		Diur	Not
1	Assuntos da atualidade/Palestra	10	0
2	Programa de Leitura	8	0
3	Projeto Interdisciplinar	60	0
4	Treinamento Físico Militar	40	0
5	A Disposição do Comando, Tempos Livres e Medidas Administrativas	96	0
6	Avaliações	12	0

Tempo Total de Instrução Diurna: 520
Tempo Total de Instrução Noturna: 12

Taubaté-SP, 28 de outubro de 2005.

JOSÉ CARLOS BRAGA DE AVELLAR – Ten Cel
Cmt CIAvEx



CERTIFICATE

OF THE

AMAZON SERVICE MEDAL

- Created by Decree No. 93,206 of September 3, 1986 -

The Military Commander of the Amazon, exercising the delegation granted by the Commander of the Army, has decided, by Ordinance No. 058/CMA-E1, of August 8, 2002, to award the Cavalry Captain (ID 023260093-2) Luiz Henrique Garcez Lotufo the Amazon Service Medal, with Bronze Bar, in recognition of the relevant services rendered in Military Organizations of the Amazon, during the period October 14, 1999, to March 27, 2002.

Manaus - Amazonas, August 8, 2002

180th year of Independence and 113th year of the Republic.

General of the Army ANTONIO APPARICIO IGNACIO DOMINGUES

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



_____ Date: November 07, 2025.



DIPLOMA

DA

MEDALHA DE SERVIÇO AMAZÔNICO

- Criada pelo Decreto N° 93.206, de 03 de Setembro de 1986 -

O Comandante Militar da Amazônia, usando a delegação que lhe foi conferida pelo Comandante do Exército, resolveu, em Portaria Nr 058–CMA/E1, de 08 de Agosto de 2002 ,outorgar ao Cap Cav (023260093-2) Luiz Henrique Garcez Lotufo , a Medalha de Serviço Amazônico, com Passador de Bronze, pelos relevantes serviços prestados em Organizações Militares da Amazônia, no(s) período(s) de 14 Out 99 a 27 Mar 02

Manaus - Am, 08 de Agosto de 2002

180° da Independência e 113° da República.

Gen Ex ANTONIO APPARICIO IGNACIO DOMINGUES



FEDERATIVE REPUBLIC
OF BRAZIL

BRAZILIAN ARMY

PEACEMAKER
MEDAL

The Army Commander

awards **Major Luiz Henrique Garcez Lotufo**

the "Peacemaker Medal" for the distinguished services rendered to the Brazilian Army.

And, for the record, he hereby issues this certificate.

Brasília, Federal District, July 28, 2000.

Divisional General ROBERTO JUGURTHA CÂMARA SENNA
Secretary-General of the Army

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



_____ Date: November 07, 2025.



REPÚBLICA FEDERATIVA
DO BRASIL

EXÉRCITO BRASILEIRO

MEDALHA
DO
PACIFICADOR

O Comandante do Exército outorga ao **Major Luiz Henrique Garcez Lotufo**
a "Medalha do Pacificador" pelos assinalados serviços prestados ao Exército Brasileiro.

E, para constar, mandou expedir o presente diploma.

Brasília, DF, 28 de julho de 2000.

Gen Div ROBERTO JUGURTHA CAMARA SENNA
Secretário-Geral do Exército

TAUBATÉ AIR BASE

CONTINUATION OF THE CHANGES SHEET OF

CAVALRY CAPTAIN LUIZ HENRIQUE GARCEZ LOTUFO

PERSONNEL CODE (CP): 26241-8

SHEET NO.2

1st Semester of 1999
PERIOD: from January 1 to June 30

- During a ceremony held at Campo de Marte of the 21-BS "Condor" on November 30, 1998, he was awarded the decoration "Estrella de las FF.AA. del Ecuador" *(Star of the Armed Forces of Ecuador)* in the grade of "Estrella Militar" *(Military Star)*.

- Reported on December 11, 1998, to begin a 17 (seventeen)-day leave period.

- On December 28, 1998, reported for duty upon completion of leave.

- On February 12, 1999, reported for duty upon completion of leave.

- Was found Fit in the Pre-PT Test Medical Inspection

- On April 11, 1999, reported for duty upon completion of leave.

- Obtained the following result in the 1st PT Test/99: PBD "S" - Remark: "E".

- Is qualified to operate night vision goggles (Aviator's Night Vision System, AN/AVS-6) during basic night flight and emergency procedures, within his Pilot specialty.

PART 2

1. TIME COUNTED AS ACTIVE SERVICE (TC) 00y 06m 00d
   a. Enlisted..... 00y 06m 00d
      - From January 1 to June 30 ..... ready at OM (*Military Unit*)

2. TIME COUNTED TOWARD MILITARY MEDAL (TSCMM)
   - until 30 Jun 99..... 15y 02m 21d

Barracks in Taubaté-São Paulo, June 30, 1999.

EULER BASSO MATTOS - Brigadier General
Commander of the Taubaté Aviation Base

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



_____ Date: November 07, 2025.

BASE DE AVIAÇÃO DE TAUBATÉ

CONTINUAÇÃO DAS FOLHAS DE ALTERAÇÕES DO FOLHA Nº 02

CAP CAV LUIZ HENRIQUE GARCEZ LOTUFO

1º Semestre de 1999

CP: 28241-8 PERÍODO: de 01 Jan a 30 Jun

- em solenidade realizada no Campo de Marte da 21-BS "CONDOR", no dia 30 Nov 98, foi agraciado com a Condecoração "Estrella de las FF. AA. del Ecuador" en el grado de "Estrella Militar".

- apresentou-se em 11 Dez 98, por entrar em gozo de licença por 17 (dezessete) dias.

- apresentou-se em 28 Dez 98, por retornar de licença.

- apresentou-se em 12 Fev 99, por retornar de licença.

- foi considerado Apto na Inspeção de Saúde Pré-TAF

- apresentou-se em 11 Abr 99, por retornar de licença.

- obteve o seguinte resultado no 1º TAF/99: PBD "S" - Menção: "E".

- esta habilitado a empregar os óculos de visão noturna (Aviator's Night Vision Systen, AN/AVS-6) em vôo básico noturno e procedimentos de emergência, dentro de sua especialidade de Piloto.

2ª PARTE

1. TEMPO COMPUTADO DE EFETIVO SERVIÇO (TC).....00a 06m 00d
   a. Arregimentado.....00a 06m 00d
      - de 01 Jan a 30 Jun .....pronto na OM

2. TEMPO SV COMPUTÁVEL PARA MEDALHA MILITAR (TSCMM)
   - até 30 Jun 99 .....15a 02m 21d

Quartel em Taubaté-SP, 30 de Junho de 1999.

EULER BASSO MATTOS - Cel Com
Cmt da BAvT



CERTIFICATE

OF THE

MILITARY MEDAL

Created by Decree No. 4,238 of November 15, 1901,
as amended by Decree No. 39,207 of May 22, 1956.

The Secretary-General of the Army, by virtue of the delegation granted by the Army Commander, has resolved, in Ordinance No. 071-SGEx of June 30, 2004, to award Major Luiz Henrique Garcez Lotufo the Silver Medal and Bar, for having completed the second decade on January 28, 2003, in recognition of the distinguished military services rendered over more than twenty years.

Brasília, July 16, 2004
183rd year of Independence and 116th year of the Republic.

Divisional General José Carlos De Nardi
Secretary-General of the Army

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



_____ Date: November 07, 2025.



DIPLOMA

DA

MEDALHA MILITAR

Criada pelo Decreto n.º 4.238, de 15 de novembro de 1901, modificado pelo Decreto n.º 39.207, de 22 de maio de 1956.

O Secretário - Geral do Exército, usando da delegação que lhe foi conferida pelo Comandante do Exército, resolveu, em Portaria nº 071 - SGEx de 30 de junho de 2004 conceder ao(à) Maj Luiz Henrique Garcez Lotufo a Medalha e Passador de Prata, por ter completado o segundo decênio em 28 de janeiro de 2003 como reconhecimento aos bons serviços militares prestados durante mais de vinte anos.

Brasília, 16 de julho de 2004 ; 183º da Independência e 116º da República.

Gen Div José Carlos De Nardi
Secretário - Geral do Exército

United States Southern Command

Certificate of Achievement

is presented to

For CAP. LUIZ HENRIQUE GARCEZ LOTUFO

CAP. LUIZ HENRIQUE GARCEZ LOTUFO, EJÉRCITO DE BRASIL, DISTINGUISHED HIMSELF BY EXCEPTIONAL ACHIEVEMENT WHILE ASSIGNED TO THE MILITARY OBSERVER MISSION-ECUADOR, PERU (MOMEP) IN PATUCA, ECUADOR. CAP. LUIZ HENRIQUE GARCEZ LOTUFO'S CONTRIBUTIONS TO THE MISSION WERE INSTRUMENTAL IN THE SUCCESS OF MAINTAINING PEACE ALONG THE DISPUTED BORDER. HIS PROFESSIONALISM AND RELATIONSHIP SKILLS EARNED CAP. LUIZ HENRIQUE GARCEZ LOTUFO THE RESPECT AND COOPERATION OF HIS PEERS FROM THE GUARANTOR NATIONS, AS WELL AS FROM PERU AND ECUADOR. THE DISTINCTIVE ACCOMPLISHMENTS OF CAP. LUIZ HENRIQUE GARCEZ LOTUFO ARE IN KEEPING WITH THE FINEST TRADITIONS OF MILITARY SERVICE AND REFLECT GREAT CREDIT UPON HIMSELF, HIS SERVICE, AND HIS NATION.

Given this 17 day of JUNE , 1999

EDWARD F. MARTIN III
COMMANDING



DIPLOMA

DISTINGUISHED SERVICES IN THE MILITARY OBSERVER MISSION ECUADOR - PERU

Whereas **CAP. LUIZ GARCEZ LOTUFO** has rendered distinguished service to MOMEP, he is hereby awarded this diploma and insignia in accordance with the provisions of R.F.M. Chapter V, Section VIII and the provisions of Res. Cdo. No. 1421/01 of March 1, 1999, in his capacity as **HELICOPTER PILOT**, in accordance with the Itamaraty Peace Declaration of February 17, 1995, for the Operations of Supervision of the Ceasefire, Separation of Forces, and Demobilization of the Military Forces of Ecuador and Peru, and the provisions of the guarantor countries of the 1942 Rio de Janeiro Protocol.

Issued at the MOMEP Headquarters in Patuca, Ecuador, on the seventeenth day of June, nineteen hundred and ninety-nine.

CLAUDIO BARBOSA DE FIGUEIREDO
Lieutenant General
General Coordinator of MOMEP.

Luis Alberto Coquet	Pedro Paulo Da Silva	Edmundo O'Kuinghttons Ocampo	Edward Martin III	Jorge Brito Albuja	Eduardo Montes Gallo
Colonel Argentine Army	Colonel Brazilian Army	Colonel Chilean Army	Colonel U.S. Army	Colonel Ecuadorian Army	Colonel Peruvian Army

I, Pedro Peski Ribeiro Lopes, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Spanish to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: October 31, 2025.

DIPLOMA

SERVICIOS DISTINGUIDOS EN LA MISION DE
OBSERVADORES MILITARES
ECUADOR - PERU

Por cuanto el **CAP. LUIZ GARCEZ LOTUFO**, ha prestado servicios distinguidos en la MOMEP, se le otorga el presente diploma y distintivo conforme lo estipulado en el R.F.M. Cap. V, Secc. VIII y lo dispuesto en la Res. Cdo. N° 1421/01 de 01.Mar.1999, en su calidad de **PILOTO DE HELICOPTERO**, conforme la Declaración de Paz de Itamaraty del 17 de Febrero de 1995 para las Operaciones de Supervisión de Cese al Fuego, Separación de Fuerzas y Desmovilización de las Fuerzas Militares del Ecuador y Perú, y lo dispuesto a los países garantes del Protocolo de Río de Janeiro de 1942.

Otorgado en el Cuartel General de la MOMEP en Patuca - Ecuador, a Diecisiete días del mes de Junio del año mil novecientos noventa y nueve.

CLAUDIO BARBOSA DE FIGUEIREDO
General de División
Coordinador General de la MOMEP.

Luis Alberto Goquet
Coronel
Ejército Argentino

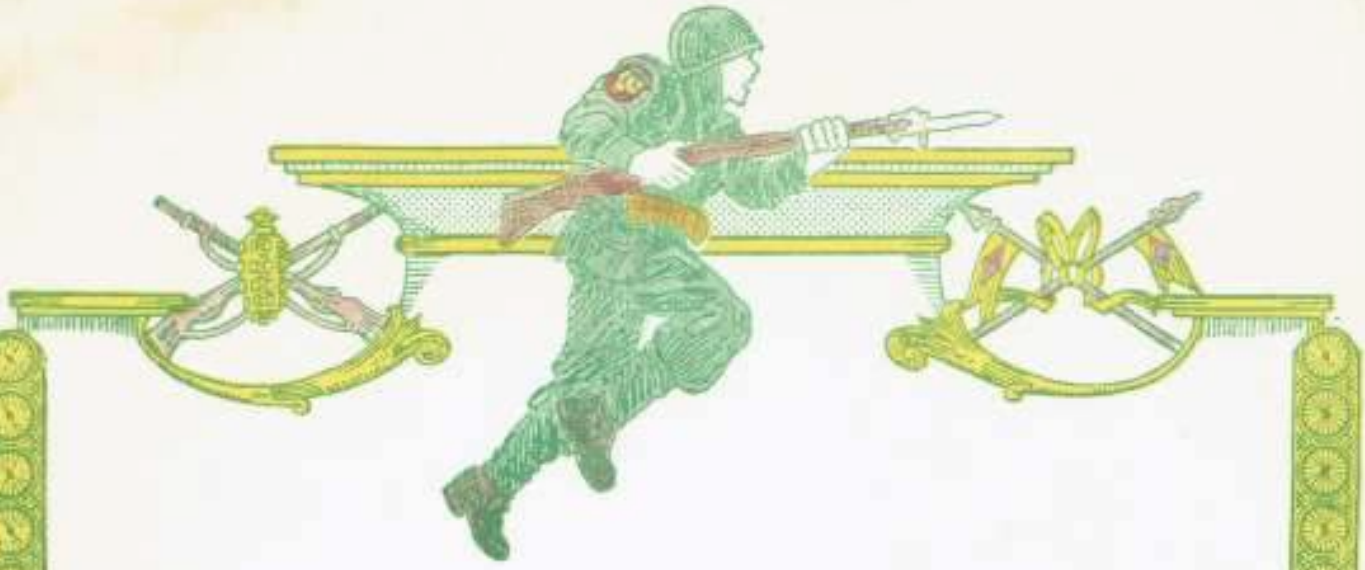
Pedro Paulo Da Silva
Coronel
Ejército Brasilero

Edmundo O'Kuinghttons Ocampo
Coronel
Ejército de Chile

Edward Martin III
Coronel
U.S. Army

Jorge Brito Albuja
Coronel
Ejército del Ecuador

Eduardo Montes Gallo
Coronel
Ejército del Perú



CERTIFICATE

"THE EXPEDITIONARY"

The Veterans Association of Brazil - São Paulo

Section hereby awards the "The Expeditionary" Certificate

to Member No. *** Category ***

Ten. Luiz Henrique G. Lotufo

for outstanding services rendered to this Association.

São Paulo. 10 / 31 / 19 90

President

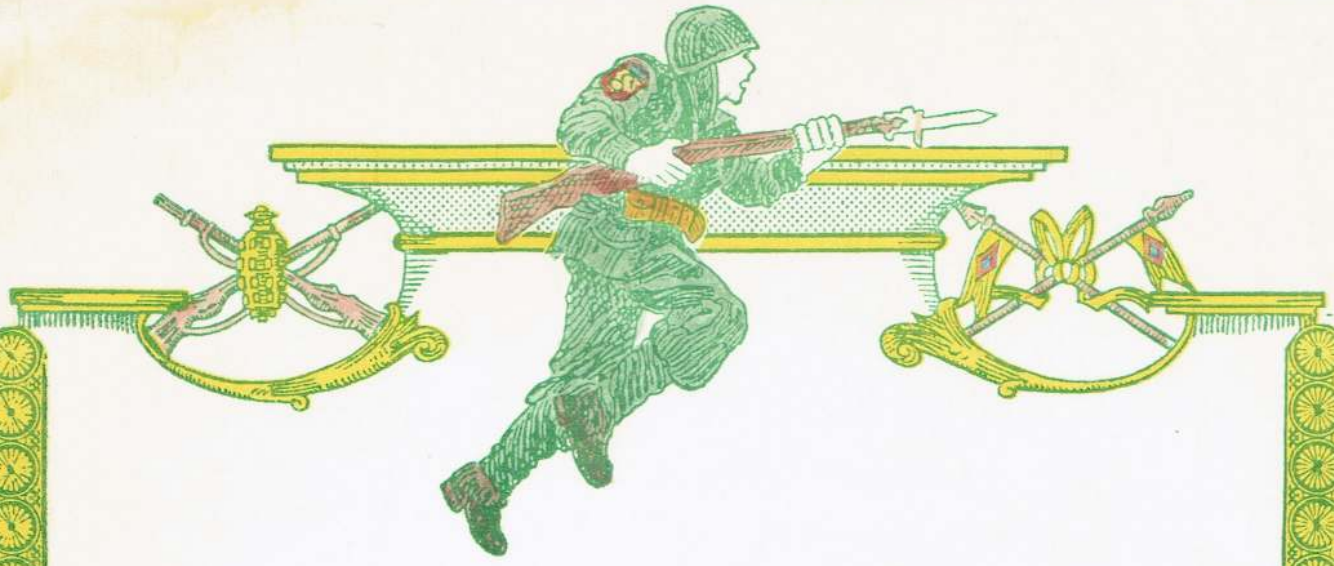
Secretary-General



I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



_____ Date: December 12, 2025.



DIPLOMA

"O EXPEDICIONÁRIO"

A Associação dos Ex-Combatentes do Brasil - Secção de São Paulo confere o Diploma "O Expedicionário" ao Socio (A) N.º * * * Categoria * * *

Ten. Luiz Henrique C. Lotufo

Por relevantes serviços prestados a esta Associação.

São Paulo, 31 / OUTUBRO / 19 90

Presidente

Secretario Geral



SERAU 90



CERTIFICATE

OF THE
TROOP CORPS MEDAL

Created by Decree No. 5,166 of August 3, 2004.

The Secretary-General of the Army, by virtue of the delegation granted by the Army Commander, has resolved, in Ordinance No. 173-SGEx of July 7, 2005, to award Major Luiz Henrique Garcez Lotufo the Troop Corps Medal with Bronze Bar, for distinguished services rendered in Troop Corps Military Organizations of the Brazilian Army for more than ten years.

Brasília, July 13, 2005
184th year of Independence and 147th year of the Republic.

Emir Benedetti – Colonel
Acting Secretary-General of the Army

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



_____ Date: November 07, 2025.



DIPLOMA
DA
MEDALHA CORPO DE TROPA

Criada pelo Decreto nº 5.166, de 3 de agosto de 2004.

O Secretário-Geral do Exército, usando da competência que lhe foi delegada pelo Comandante do Exército, resolveu, em Portaria nº 173 - SGEx, de 7 de julho de 2005, conceder ao(à) Maj Luiz Henrique Garcez Lotufo a Medalha Corpo de Tropa com Passador de Bronze, pelos bons serviços prestados em Organizações Militares de Corpo de Tropa do Exército Brasileiro, por mais de dez anos.

Brasília, 13 de julho de 2005;
184º da Independência e 117º da República.

Emir Benedetti - Cel
Secretário-Geral do Exército Interino

MINISTRY OF THE ARMY
SOUTHEAST MILITARY COMMAND
CAVEX - BAVT

CHANGE SHEET
TAUBATÉ GARRISON
SHEET No. 01

00111-5



NAME: LUIZ HENRIQUE GARCEZ LOTUFO
RANK (OR GRADE): CAPTAIN
BRANCH (CORPS OR SERVICE): CAVALRY
IDENTITY NUMBER: 023260093-2
PERSONNEL CODE (CP): 28241-8

1st Semester of 1998
PERIOD: from January 01 to June 30

1st PART

JANUARY

- on the 29th, BI No. 020 - reported on December 26, 1997, ready for duty at LACKLAND AIR FORCE BASE, SAN ANTONIO - TEXAS/USA, in accordance with Message No. 0045-ADIEX, of January 22, 1998, via FAX, to attend the UH-60 Pilot Qualification Course.

FEBRUARY

- on the 13th, BI No. 031 - Ordinance No. 1002, of November 26, 1997 - Designation - Transcription

- The MINISTER OF STATE OF THE ARMY, in the exercise of the authority granted to him by item c) of section II of article 9 of the Regulation approved by Decree No. 2,040 of October 21, 1996 (R-50), combined with item VII of article 1 of Decree No. 90,893 of February 04, 1985, as amended by Decree No. 98,365 of November 17, 1989, hereby decides: To designate the military member listed below to carry out, in the USA, the following course:

1) UH-60 Pilot Qualification Course

- Location - San Antonio/Texas, from December 23, 1997 to February 27, 1998;
- Fort Hucker/Alabama, from March 02, 1998 to April 20, 1998.

- Participant - Cavalry Captain LUIZ HENRIQUE GARCEZ LOTUFO, of BAvT.

MARCH - No Change

APRIL

- on the 27th, BI No. 076 – was designated to join the Support Group for MOMEP in Patuca/Ecuador, for an approximate period of Ten months, scheduled to begin in the second half of July 1998. The mission is classified as temporary, military, involving a change of duty station and without dependents, in accordance with Law No. 5,809 of October 19, 1972, regulated by Decree No. 71,733 of January 18,1973.

- on the 28th, BI No. 077 - reported on Apr 27, 1998, upon completion of mission abroad and for in-processing.

- granted 02 (two) days of in-processing, starting from this date, after which he must report ready for duty on April 30, 1998.

MAY

- on the 4th, BI No. 080 - reported on April 30, 1998, upon completion of in-processing and take a leave.

- granted 30 (thirty) days of leave for the year 1997, starting on May 1, 1998, after which he must report ready for duty on May 31, 1998.

- on the 4th, Special Notice No. 013-SPP - in accordance with item 6, letter “d” of No. 3 of Ordinance No. 22/SEF, of October 12, 1988, the data related to his RAIS/98, base year 1997, prepared by CPEX/SIAPPES, was published according to Program PPF-015, filed in the Payment Section of this Aviation Base, showing for CPF: 17023862577 the amount of R$ 22,760.43.

TAUBATÉ AIR BASE

CONTINUATION OF THE CHANGES SHEET OF

SHEET No. 02

CAVALRY CAPTAIN LUIZ HENRIQUE GARCEZ LOTUFO

PERSONNEL CODE (CP): 28241-8

1st Semester of 1998
PERIOD: from January 01 to June 30

- on the 7th, BI No. 083 - MOMEP 2/USA - Return Schedule - Transcription
  - Activity: Pilot Qualification Course
  - Country: USA
  - Appointed: Cavalry Captain LUIZ HENRIQUE GARCEZ LOTUFO
  - Document: Ministry Ordinance No. 1002, of November 26, 1997

Return Calendar

- End of mission:	On 04/20/98
- Discharge:	On 04/20/98
- Travel:	From 04/21/98 to 04/22/98
- Report ready for duty:	On 04/23/98

- on the 19th, BI No. 091 - completed on April 20, 1998 the qualification course on the UH-60 Black Hawk aircraft, with travel to Brazil scheduled for April 24, 1998, in accordance with Message No. 330-ADIEx, of April 27, 1998, from Major FRANKLIN CAMPOS DE OLIVEIRA.

JUNE

- on the 1st, BI No. 100 - reported on this date, upon completion of leave, and ready for duty.

- on the 10th, BI No. 107 - was placed at the disposal of the Amazon Military Command, from June 15 to 26, 1998, in order to take administrative and operational measures in preparation for the II Brazilian Contingent of the Support Group for MOMEP, in accordance with Message No. 018-E1.S1.

2nd PART

1. TIME COUNTED AS ACTIVE SERVICE (TC) 00y 06m 00d
   a. Enlisted 00y 06m 00d
      From January 1 to June 30 ..... ready at OM

2. TIME COUNTED TOWARD MILITARY MEDAL (TSCMM)
   - until June 30, 1998 ..... 14y 02m 21d

Barracks in Taubaté (São Paulo), June 30, 1998.

-----//**Signature**//----

WILLIAM SHAKESPEARE DE OLIVEIRA - Colonel, Engineer QEMA
Commander of the Taubaté Aviation Base

Glossary:
ADIEx: Army International Affairs Advisory
BAVT: Taubaté Aviation Base
CAVEX: Army Aviation Command
CPEX/SIAPPES: Army Payment Center / Army Personnel Administration System
MOMEP: Military Observer Mission
OM: Military Unit
QEMA: Army Military Engineers Corps

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



_____ Date: December 12, 2025.

MINISTÉRIO DO EXÉRCITO
COMANDO MILITAR DO SUDESTE
CAVEX - BAVT

FOLHA DE ALTERAÇÕES
GUARNIÇÃO DE TAUBATÉ
FOLHA Nº 01

00111-5

NOME: LUIZ HENRIQUE GARCEZ LOTUFO
POSTO (OU GRADUAÇÃO): CAPITÃO
ARMA (QUADRO OU SERVIÇO): CAVALARIA
IDENTIDADE: 023260093-2
CP: 28241-8

1º Semestre de 1998
PERÍODO: de 01 Jan a 30 Jun

1ª PARTE

JANEIRO

- a 29, BI Nr 020 - apresentou-se em 26 Dez 97, pronto para o serviço na LACKLAND, AIR FORCE BASE SAN ANTÔNIO - TEXAS/EUA, de acordo com a Msg nº 0045-ADIEX, de 22 Jan 98, via FAX, para a realização do Curso de Qualificação de Piloto em UH-60.

FEVEREIRO

- a 13, BI Nr 031 - Portaria nº 1002, de 26 novembro de 1997 - Designação - Transcrição

- O MINISTRO DE ESTADO DO EXÉRCITO, no uso da competência que lhe é atribuída pela letra c) do inciso II do art 9º do Regulamento aprovado pelo Decreto nº 2.040, de 21 de outubro de 1996 (R-50), combinado com inciso VII do art. 1º do Decreto nº 90.893, de 04 de fevereiro de 1985, alterado pelo Decreto nº 98.365, de 17 de novembro de 1989, resolve: Designar o militar abaixo relacionado para realizar, nos EUA, o seguinte curso:

1) Curso de Qualificação de Piloto em UH-60

- Local - San Antonio/Texas, de 23 Dez 97 a 27 Fev 98;
- Fort Hucker/Alabama, de 02 Mar 98 a 20 Abr 98.

- Participante - Cap Cav LUIZ HENRIQUE GARCEZ LOTUFO, da BAvT.

MARÇO - Sem Alteração

ABRIL

- a 27, BI Nr 076 - foi designado para integrar o Grupo de Apoio à MOMEP, em Patuca/Equador, por um período aproximado de Dez meses, com início previsto para a 2ª quinzena de julho do ano de 1998. A missão esta enquadrada como transitória, militar, com mudança de sede e sem dependentes, de acordo com a Lei nº 5.809, de 19 de outubro de 1972, regulamentada pelo Decreto nº 71.733, de 18 de janeiro de 1973.

- a 28, BI Nr 077 - apresentou-se em 27 Abr 98, por término de missão no exterior e entrar em instalação.

- foram concedidos 02 (dois) dias de instalação, a contar desta data, o qual deverá se apresentar pronto para o serviço no dia 30 Abr 98.

MAIO

- a 04, BI Nr 080 - apresentou-se em 30 Abr 98, por término de instalação e entrar em férias.

- foram concedidos 30 (trinta) dias de férias relativas ao ano de 1997, a contar de 01 Mai 98, o qual deverá se apresentar pronto para o serviço no dia 31 Mai 98.

- a 04, Adt Esp Nr 013-SPP - de acordo com disposto nº 6 da letra "d" do nº 3 da Port nº 22/SEF, de 12 Out 88, publicou os dados relativos a sua RAIS/98, ano base 97, confeccionada pelo CPEx/SIAPPES, conforme Programa PPF-015, arquivado no Setor de Pagamento desta Base de Aviação, constando para o CPF: 17023862577 o valor de R$ 22.760,43.

BASE DE AVIAÇÃO DE TAUBATÉ

CONTINUAÇÃO DAS FOLHAS DE ALTERAÇÕES DO FOLHA Nº 02

CAP CAV LUIZ HENRIQUE GARCEZ LOTUFO

1º Semestre de 1998

CP:28241-8 PERÍODO: de 01 Jan a 30 Jun

- a 07, BI Nr 083 - MOMEP 2/EUA - Calendário de Retorno - Transcrição
  - Atv: Curso de Qualificação de Pilotos
  - Pais: EUA
  - Nomeado: Cap Cav LUIZ HENRIQUE GARCEZ LOTUFO
  - Documento: Port Min Nr 1002, de 26 Nov 97

Calendário de Retorno

- Término da missão:	Em 20/04/98
- Desligamento:	Em 20/04/98
- Viagem:	De 21/04/98 a 22/04/98
- Apresentação pronto para o serviço:	Em 23/04/98

- a 19, BI Nr 091 - concluiu em 20 Abr 98, com aproveitamento, o curso de qualificação na aeronave UH-060 Black Hawk, com data prevista para viagem ao Brasil em 24 Abr 98, de acordo com a Msg Nr 330-ADIEx, de 27 Abr 98, do Maj FRANKLIN CAMPOS DE OLIVEIRA.

JUNHO

- a 01, BI Nr 100 - apresentou-se nesta data, por término de férias e estar pronto para o serviço.

- a 10, BI Nr 107 - passou a disposição do Comando Militar da Amazônia, no período de 15 a 26 Jun 98, a fim de serem tomadas medidas administrativas e operacionais no preparo do II Contigente Brasileiro do Grupo de Apoio à MOMEP, de acordo com a Msg nº 018-E1.S1.

2ª PARTE

1. TEMPO COMPUTADO DE EFETIVO SERVIÇO (TC)..... 00a 06m 00d
   a. Arregimentado 00a 06m 00d
      - de 01 Jan a 30 Jun.....pronto na OM

2. TEMPO SV COMPUTÁVEL PARA MEDALHA MILITAR (TSCMM)
   - até 30 Jun 98 ..... 14a 02m 21d

Quartel em Taubaté (SP), 30 de Junho de 1998.

WILLIAM SHAKESPEARE DE OLIVEIRA - Cel Eng QEMA
Comandante da Base de Aviação de Taubaté

C E R T I F I C A T E

I hereby certify, for all relevant purposes, that Cavalry Captain LUIZ HENRIQUE GARCEZ LOTUFO participated in the Permanent Justice Council for the Army, for the 1st quarter, in the capacity of Judge-Member, at the Audit of the 12th Military Judicial District, from January to March of the current year. Manaus/Amazonas, March 30, 2001.

Dr. SAFIRA MARIA DE FIGUEREDO SOUSA
Auditor Judge

FEDERAL MILITARY JUSTICE

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: December 12, 2025.

CERTIFICADO

Certifico, para os devidos fins, que o CAP CAV LUIZ HENRIQUE GARCEZ LOTUFO participou do Conselho Permanente de Justiça para o Exército, relativo ao 1º trimestre, na qualidade de Juiz-Membro, na Auditoria da 12ª Circunscrição Judiciária Militar, no período de janeiro a março do ano em curso. Manaus/AM, 30 de março de 2001.

Dra. SAFIRA MARIA DE FIGUEREDO SOUSA
Juíza Auditora

JUSTIÇA DA UNIÃO
MILITAR

São Paulo Aeroclub

FULL MEMBER



MEMBERSHIP No.
0001873

DATE OF ADMISSION
01/13/1993

NAME
LUIZ HENRIQUE GARCEZ LOTUFO

DAC CODE No.
705632

MEMBERSHIP CARD No.
339

CPF No.
081.112.348-05

I, Marina Viana Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that I have performed the professional translation of this document from Portuguese to English, as a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Marina Viana
_____

Date: April, 24 2026


AEROCLUBE DE SÃO PAULO
SÓCIO EFETIVO
Nº DE SÓCIO
0001873
DATA DE ADMISSÃO
13/01/93
NOME
LUIZ HENRIQUE GARCEZ LOTUFO
CÓDIGO DO DAC Nº
705632
CARTEIRA SOCIAL Nº
339
CPF Nº
081.112.348-05

São Paulo, January 8th 2026

To the United States Citizenship and Immigration Services – USCIS

Dear USCIS Officer,

The Brazilian Association of Helicopter Pilots (ABRAPHE), CNPJ 02.344.804/0001-33, represented by its president, Mr. Thales Augusto Dzioba Pereira, certifies that Mr. Luiz Henrique Garcez Lotufo has been an active member of the association since 10/2025.

Name: Luiz Henrique Garcez Lotufo
Address: Rua Dr Emílio Winther, 597 Ap53/2, Taubaté-SP Brazil

Email: luizhglotufo@gmail.com
Date of Birth: 05 Oct 1964
ANAC CODE: 705632

ABRAPHE is the only organization exclusively representing helicopter pilots in Brazil. Its mission is to promote flight safety and the professional development of pilots through technical, scientific, and legal initiatives. Founded by pilots concerned with operational safety, ABRAPHE organizes seminars, promotes certifications, and offers distance learning courses (EAD), all aimed at the continuous improvement of its members.

ABRAPHE plays a crucial role in raising safety and professionalism standards in helicopter aviation in Brazil. Through its initiative, it ensures that pilots stay up to date with the latest regulations and technologies in the sector. ABRAPHE also serves as a platform for knowledge exchange among highly qualified aviation professionals.

Mr. Luiz Lotufo participation in ABRAPHE reflects his commitment to operational safety and his continuous pursuit of professional excellence in helicopter aviation.

Should you require further information, please contact us at **diretoria@abraphe.org.br**.

Sincerely,

Thales Augusto Dzioba Pereira
Presidente, ABRAPHE

Exhibit C.II - Second Prong - Letters of Support

February 2, 2026
Raul Rodrigues de Oliveira
raul.cav87@gmail.com
+55 (51) 98357-4397

To USCIS,

I am Raul Rodrigues de Oliveira, a retired Major General of the Brazilian Army, where I served for more than four decades in operational, instructional, strategic, and command positions. Throughout my career, I held responsibilities that included commanding combat units, leading strategic projects, and serving in senior advisory roles within the Ministry of Defense. My professional background comprises advanced military education in Brazil and the United States, qualification and instruction on the UH-60 Black Hawk aircraft, and service as a liaison officer with the United States Army. This experience provides me with a broad, rigorous perspective on aviation operations, doctrine development, and professional standards in military aviation, which gives me a solid foundation for evaluating Mr. Luiz Henrique Garcez Lotufo's work in depth.

I have known Mr. Lotufo professionally since our formative years at the Military Academy of Agulhas Negras, where we were contemporaries from 1985 to 1987. Our professional relationship became more substantive in 1998, when we were both selected for the UH-60 Black Hawk Qualification Course within the U.S. Army Aviation. Following this training, we served together between 1998 and 1999 as part of the second contingent of the Brazilian Army Aviation Detachment assigned to the Military Observer Mission Ecuador Peru. After that mission, we were assigned to the the 4th Army Aviation Squadron, now the 4th Army Aviation Battalion, where I coordinated a project that initiated the development and implementation of Night Vision Goggle operations within Brazilian Army Aviation. In 2003, we were again assigned to the same organization, this time the Army Aviation Instruction Center, which is responsible for doctrine development and the training and professional advancement of aviation personnel. In that unit, Mr. Lotufo reported directly to me in the Employment and Piloting Section.

During this period, Mr. Lotufo was entrusted with coordinating the implementation of night flight operations using Night Vision Goggles across Brazilian Army Aviation. I closely observed his performance as he led efforts to develop operational procedures, prepare instructional materials, and structure qualification programs for pilots and flight mechanics. His approach was methodical and technically precise, reflecting a deep understanding of aircraft systems and operational risk. The outcome of this work was the establishment of formal Night Vision Goggles (NVG) Piloting and Qualification Courses, which served as the definitive benchmark for nighttime mission standards within Brazilian Military Aviation. By institutionalizing these rigorous protocols, Mr. Lotufo did more than expand operational capacity; he

fundamentally enhanced the life safety of our aircrews, significantly reducing the risks inherent in low-visibility environments. This standardization was a critical milestone for Brazil's internal and external security, ensuring the Armed Forces could maintain a 24-hour presence and rapid-response capability across the vast national territory, including sensitive border regions. His contribution directly strengthened the nation's defense infrastructure, ensuring our pilots were equipped with the technical expertise required to protect the country's sovereignty and interests at any hour, under the most challenging conditions.

As a result of this initiative, the Brazilian Army achieved significant operational gains that transcended tactical efficiency. The increased availability of aerial assets and the sustained capacity to conduct combat, combat support, and logistics missions at night directly impacted Brazil's national security posture. By enabling the Force to operate at full effectiveness during the third period of the day, Mr. Lotufo's work gave the military a strategic advantage in monitoring and protecting the country's borders and critical infrastructure. This advancement ensured a continuous deterrent capability and a more robust internal defense system, as the ability to deploy specialized aviation units under any lighting condition is a cornerstone of modern national sovereignty. From my perspective, this contribution did not merely raise technical standards; it strengthened the Brazilian Army's institutional readiness to respond to threats to the nation's stability and territorial integrity.

In light of my direct supervision and long-standing professional interaction with Mr. Lotufo, I consider him a dedicated and highly reliable aviation professional whose work has had concrete, lasting impacts that extend well beyond military institutions. His leadership in standardizing complex flight operations has influenced the broader aerospace industry in Brazil, setting a high bar for technical training and operational safety that serves as a model for both defense and civil aviation sectors. The competencies and professional maturity he demonstrated under my command provide a solid basis for my full support of his professional trajectory. I am certain that his expertise is a significant asset to the international aviation community, advancing the industry and enhancing the safety of the nations where he applies his specialized knowledge. Therefore, I recommend his application with the highest degree of confidence.

Sincerely,

Raul Rodrigues de Oliveira
Major General, Brazilian Army, Retired
Brazilian Army

CURRICULUM VITAE



Major General RAUL Rodrigues de Oliveira

Born on February 19, 1965, in the city of Pindamonhangaba, São Paulo, he is the son of ANTÔNIO RODRIGUES DE OLIVEIRA and NILZA COUTO DE OLIVEIRA.

He joined the Brazilian Army on February 14, 1981, at the Army Cadet Preparatory School, where he completed his course in 1983. He entered the Military Academy of Agulhas Negras in 1984 and was commissioned as an Aspiring Officer in the Cavalry Branch on December 12, 1987.

In addition to the Brazilian Army's basic, advanced, higher-level training, and Political, Strategic, and Senior Army Administration courses, he completed the following courses: Basic Parachutist, Helicopter Pilot, Combat Pilot, Instrument Flight, and Jungle Adaptation. Abroad, he completed the Black Hawk Aircraft Pilot and Flight Instructor courses, the Command and General Staff Course, and the Combined/Joint Force Land Component Commander Course, all in the United States.

As part of his academic specialization, he earned a Bachelor's Degree in Law from the University of Taubaté, São Paulo, in 1997, and an MBA from Getulio Vargas Foundation (FGV) in 2013.

Throughout his military career, he served in Cavalry units in the states of Paraná and Rio Grande do Sul. He served as a Flight Instructor at the Army Aviation Instruction Center, Staff Officer at the 4th Army Aviation Battalion, Liaison Officer to the U.S. Army South, and Commander of the 5th Armored Regiment.

As a Colonel, he served as Deputy to the 3rd Advisory Office of the Office of the Commander of the Army, Special Advisor to the 5th Deputy Chief of the Army Staff, Deputy Army Manager for the Medium-Sized Aircraft Acquisition Project for the Armed Forces, and Assistant to the Southern Military Commander.

As a general officer, he commanded the 1st Mechanized Cavalry Brigade – “Brigade José Luiz Menna Barreto” in Santiago, Rio Grande do Sul; served as Chief of the Operations Coordination Center and Chief of Staff of the Southern Military Command, both in Porto Alegre, Rio Grande do Sul; and served as Chief of the Army Project Office, under the Army Staff. As a Major General, he served as Deputy Chief of Logistics and Deputy Chief of Strategic Affairs at the Ministry of Defense. He commanded the 7th Army Division from March 2023 to August 2024, when he retired from active service.

Among the national and foreign decorations he received are the Victory Medal, Joint Armed Forces General Staff Medal of Merit, Order of Military Merit – Grand Officer, Gold Military Medal with Platinum Bar, Peacekeeper Medal, Santos Dumont Medal of Merit, Tamandaré Medal of Merit, Amazon Service Medal with Bronze Bar, Troop Corps Medal with Bronze Bar, Gold Command Badge, Armed Forces Star Medal (Ecuador), and Meritorious Service Medal (United States).

General RAUL is married to RENATA DE OLIVEIRA SOUSA, and they have two children, Paula and Felipe.

I, Marina Viana Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that I have performed the professional translation of this document from Portuguese to English as a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Marina Viana

Date: August 13, 2026

“CURRICULUM VITAE”



General de Divisão RAUL Rodrigues de Oliveira

Nascido em 19 de fevereiro de 1965, na cidade de Pindamonhangaba-SP, é filho de ANTÔNIO RODRIGUES DE OLIVEIRA e de NILZA COUTO DE OLIVEIRA.

Incorporou às fileiras do Exército em 14 de fevereiro de 1981, na Escola Preparatória de Cadetes do Exército, onde concluiu o curso em 1983. Ingressou na Academia Militar das Agulhas Negras em 1984, tendo sido declarado Aspirante a Oficial da Arma de Cavalaria em 12 de dezembro de 1987.

Além dos Cursos de Formação, de Aperfeiçoamento, de Altos Estudos e de Política, Estratégia e Alta Administração do Exército, realizou os cursos de: Básico Paraquedista, Piloto de Helicópteros, Piloto de Combate, Voo por Instrumentos e Adaptação à Selva. No exterior, realizou os cursos de Piloto e de Instrutor de Voo da Aeronave Black Hawk, Curso de Comando e Estado-Maior e o Curso de Comandante de Componente Terrestre de Força Combinada/Conjunta, todos nos EUA.

Como especialização acadêmica, concluiu a graduação em Direito pela Universidade de Taubaté-SP em 1997 e o MBA da FGV, em 2013.

Durante sua vida militar, serviu em unidades de Cavalaria no Paraná e Rio Grande do Sul. Foi instrutor de Voo no Centro de Instrução de Aviação do Exército, Oficial de Estado-Maior no 4º Batalhão de Aviação do Exército, Oficial de Ligação junto ao Exército Sul dos EUA e Comandante do 5º Regimento de Carros de Combate.

Como Coronel, foi Adjunto da 3ª Assessoria do Gabinete do Comandante do Exército, Assessor Especial do 5º Subchefe do Estado-Maior do Exército, Gerente-Adjunto do Exército no Projeto de Aquisição de Aeronaves de Porte Médio para as Forças Armadas e Assistente do Comandante Militar do Sul.

Como oficial-general, comandou a 1ª Brigada de Cavalaria Mecanizada – "Brigada José Luiz Menna Barreto" em Santiago-RS, chefiou o Centro de Coordenação de Operações e o Estado-Maior do Comando Militar do Sul, ambos em Porto Alegre-RS e chefiou o Escritório de Projetos do Exército, subchefia do Estado-Maior do Exército. Como General-de-Divisão foi Vice-Chefe de Logística e Vice-Chefe de Assuntos Estratégicos, no Ministério da Defesa; comandou a 7ª Divisão de Exército, de março de 2023 a agosto de 2024, quando, então, foi para a reserva.

Dentre as condecorações nacionais e estrangeiras com que foi agraciado, destacam-se: a Medalha da Vitória, a Medalha Mérito Estado-Maior Conjunto das Forças Armadas, a Ordem do Mérito Militar Grande-Oficial, a Medalha Militar de Ouro com Passador de Platina, a Medalha do Pacificador, a Medalha Mérito Santos Dumont, a Medalha Mérito Tamandaré, a Medalha de Serviço Amazônico com Passador de Bronze, a Medalha Corpo de Tropa com Passador de Bronze, o Distintivo de Comando Dourado, a Medalha Estrela das Forças Armadas (Equador) e a Medalha de Serviço Meritórios (EUA).

O General RAUL é casado com a senhora RENATA DE OLIVEIRA SOUSA e o casal possui dois filhos, Paula e Felipe.

February 2, 2026

To the USCIS Immigration Officer,

I am writing to provide my professional perspective on the qualifications and technical capabilities of Luiz Henrique Garcez Lotufo, based on our extensive collaboration in the Brazilian Army Aviation. My name is José Carlos Braga de Avellar, and I am a Brigadier General in the Brazilian Army Reserve and currently serve as the Military Support and Sales Manager at Helibras/Airbus Helicopters. My career spans 38 years of service in the Brazilian Army, during which I held command positions, including Commander of the Army Aviation Instruction Center (CIAvEx) and Commander of the 13th Motorized Infantry Brigade. My academic background includes a Doctorate in Military Sciences from the Army Command and General Staff College and a Master's degree in History from the École Pratique des Hautes Études in Paris. Throughout my career, I have led high-stakes operations, including the security for the 2014 FIFA World Cup in Cuiabá and UN peacekeeping missions in Haiti.

My professional relationship with Mr. Lotufo began in 2003 when he served under my command at the Army Aviation Instruction Center (Centro de Instrução de Aviação do Exército - CIAvEx). From 2003 to 2005, he served as an Assistant Officer in the Employment and Piloting Section and subsequently as Chief and Assistant of the Doctrine and Standardization Division. In these roles, Mr. Lotufo was directly responsible for managing special projects to update night visual flight techniques and for proposing new methodologies for instrument flight training. His work was central to the operational development of the Brazilian Army's aerial capabilities during a period of significant technological transition.

One of the most significant contributions I observed was Mr. Lotufo's leadership in implementing Night Vision Goggles (NVG) operations within the Brazilian Army Aviation. He was responsible for the technical planning and the creation of instructional materials, including the development of Qualification Internship Programs for both pilots and flight mechanics. Furthermore, Mr. Lotufo served as a pilot on the Flight Testing Campaign to certify the first Fennec helicopter adapted for NVG operations. His technical evaluation was essential in establishing the safety parameters, performance standards, and standardization required for nocturnal missions. This initiative enabled the Army to conduct safe, efficient aerial operations under restricted visibility, supporting 24-hour operational readiness.

The impact of the work performed by Mr. Lotufo is measurable by the modernization of the Force's doctrinal bases. By structuring instruction for night vision systems, he provided the technical foundation that continues to guide flight crew training to this day. His ability to integrate complex technologies into standard military routines increased operational flexibility and enhanced safety for combat support and logistics

transport missions. Mr. Lotufo distinguished himself through his resilience, technical acumen, and strong interpersonal skills, which enabled him to serve as a reference for his peers and superiors alike.

Based on the professional maturity and technical excellence demonstrated over our years of collaboration, I fully support Mr. Lotufo's professional endeavors. His proven track record in managing complex aeronautical projects and his capacity to deliver high-impact results in demanding environments make him an asset to any professional undertaking in his field.

Cordially,



José Carlos Braga de Avellar

Brigadier General (Ret.) - Brazilian Army

Military Support and Sales Manager at Helibras/Airbus Helicopters

Rio de Janeiro, Brazil

bavellar@hotmail.com
+55 (11) 96374-8968

José Carlos Braga de Avellar

Brigadier General in the Brazilian Army Reserve

Av. Afonso de Taunay, 615, Apt. 201
Barra da Tijuca – Rio de Janeiro – RJ – Brazil
+55 61 98185-0870
bavellar@hotmail.com



Activities related to security and defense operations and/or the employment of aviation forces (in Brazil and abroad – France and Haiti), project management, and the management of human, material, and financial resources. Of my 38 years of professional experience in the Brazilian Army, as well as nearly five years in the private sector, I will describe only the most relevant and recent aspects of my experience in the ranks of Lieutenant Colonel, Colonel, and Brigadier General, as well as during my last five years in the private sector.

As a Lieutenant Colonel:

- Commander of the Army Aviation Instruction Center (CIAvEx) – personnel selection, training, and management; equipment management; and development of doctrine for the employment of forces.

- Intelligence Officer at the Brazilian Army Intelligence Center – specialized in counterintelligence (including the protection of data, personnel, facilities, and behavior).

As a Colonel:

- Commander of the 2nd Brazilian UN Peacekeeping Battalion in Haiti, during its preparation in Brazil – personnel selection and individual and collective training (Campo Grande, MS, Brazil) – 2010.
- Deputy Commander of the 2nd Brazilian UN Peacekeeping Battalion in Haiti (Port-au-Prince, Haiti) – 2010.

As a Brigadier General:
- Extensive operational experience as Commander of the 13th Motorized Infantry Brigade (Cuiabá, MT, Brazil), where he conducted several operations, including:

- Commander of the security operation for the 2014 FIFA World Cup in the city of Cuiabá, MT, Brazil, involving the deployment of 1,600 personnel in coordination with public security forces (preparation, deployment, and logistics).
For reference: https://www.defesanet.com.br/seguranca/ccda-cuiaba-exercito-fecha-acao-de-defesa-da-copa/

- National Election Security Operation – "Operation Cacique", conducted in 21 remote Indigenous tribes.
For reference:
https://g1.globo.com/mato-grosso/eleicoes/2014/noticia/2014/10/exercito-deve-enviar-500-homens-para-garantir-votacao-em-21-aldeias-em-mt.html

- Commander of the Land Force in **Operation Ágata/2015**, combating arms and drug trafficking.

- Extensive administrative experience as Chief of Staff of the Western Military Command (Campo Grande, MS, Brazil), including project management, administrative management and streamlining, personnel management, and materiel management, among other responsibilities:

- Manager responsible for the implementation of the 1st Military Intelligence Battalion (1st BIM).
- Manager responsible for the implementation of the 3rd Anti-Aircraft Artillery Battery.
- Review and implementation of new security processes at Headquarters.

Since November 2019, I have been working at Airbus-Helibras as Military Support and Sales Manager, particularly providing support to the Brazilian Army Aviation helicopter fleet. In this position, I have achieved several accomplishments and led the negotiation and closing of multiple contracts. I received an "Honorable Mention" in the 2025 survey, August/September edition, page 39, of the specialized magazine Vertical Magazine.
https://issues.verticalmag.com/554/766/1745/V2414/index.html?gl=1*lvm9h7*_ga*MTA5NTAyMjIxNC4xNzYxMDg2OTg2*_ga_L93W1ECVS6*czE3NjEwODY50DYkbzEkZzAkdDE3NjEwODY50*DYkajYwJGwwJGgw

Academic Background

Education:

- 1980–1983: Military Academy of Agulhas Negras (Resende, Brazil) – Bachelor's Degree in Military Sciences.
- Combat Helicopter Pilot, with training courses at the Brazilian Air Force, Brazilian Army Aviation, and French Army Aviation.

Master's-Level:

- 1992: Military Operations – Officer Advanced Training School (ESAO), Rio de Janeiro, RJ, Brazil.
- 2007–2008: Specialist in Management, Command, and Strategy – "Collège Interarmées de Défense" (French Inter-service Defense College), Paris, France. Thesis addressing the General Strategy for the Employment of Forces, based on historical cases. Concurrently, obtained a Master's degree in History from the École Pratique des Hautes Études - EPHE (School for Advanced Studies), Paris, France.

Doctoral-Level:

- 1998–1999: Military Sciences – Army Command and General Staff College, Rio de Janeiro, RJ, Brazil.

Other Security-Related Courses and Training:

- 2010: United Nations Command for Peacekeeping Operations – United Nations Peacekeeping Training Institute.
- 2010: United Nations Military Observer – United Nations Peacekeeping Training Institute.

Decorations and Awards

Several, including:

- Order of Military Merit (Brazil)
- Peacekeeper Medal (Brazil)
- Order of Defense Merit (Brazil)
- Order of Naval Merit (Brazil)
- Tamandaré Medal of Merit (Brazil)
- Santos Dumont Medal of Merit (Brazil)
- National Defense Medal (France)
- MINUSTAH – United Nations – Peacekeeping Force in Haiti

Languages

- Fluent in French and English, both spoken and written.
- Good command of Spanish.

Born in Rio de Janeiro, Brazil, on June 10, 1962.

I, Marina Viana Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that I have performed the professional translation of this document from Portuguese to English as a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Marina Viana

Date: August 13, 2026

José Carlos Braga de Avellar

General de Brigada do Exército Brasileiro - Reserva

Av. Afonso de Taunay,615 Apto 201
Barra da Tijuca – Rio de Janeiro – RJ – Brasil
(55 61) 981850870
bavellar@hotmail.com



Atividades relacionadas às operações de segurança e de defesa e/ou de emprego da aviação (no Brasil e exterior - França e Haiti), gerenciamento de projetos e gerenciamento de recursos humanos, materiais e financeiros. Dos meus 38 anos de experiência profissional no Exército Brasileiro, e quase 05 anos na iniciativa privada, relatarei apenas os aspectos mais relevantes e recentes, vividos nos postos de tenente-coronel, coronel, general de brigada, bem como nos últimos cinco anos na iniciativa privada.

No posto de tenente-coronel:

- Comandante do Centro de Instrução de Aviação do Exército – seleção, treinamento e gestão de pessoal, gestão de equipamentos e desenvolvimento de doutrina para o uso das forças.

- Oficial de Inteligência do Centro de Inteligência do Exército Brasileiro – especializado em contrainteligência, (incluindo proteção de dados, pessoas, instalações e comportamento).

No posto de Coronel:

- Comandante do 2º Batalhão Brasileiro de Força de Paz da ONU no Haiti, durante a preparação no Brasil – seleção de pessoal e preparação individual e coletiva (Campo Grande – MS – Brasil) - 2010

- Subcomandante do 2º Batalhão Brasileiro de Força de Paz da ONU no Haiti (Porto Príncipe – Haiti) – 2010

No posto de General de Brigada:

- Forte experiência operacional, como Comandante da 13ª Brigada de Infantaria Motorizada (Cuiabá – MT – Brasil), onde conduziu diversas operações, incluindo:

  - Comandante da operação de segurança da Copa do Mundo FIFA 2014, na cidade de Cuiabá – MT – Brasil, emprego de 1.600 homens em coordenação com as forças de segurança pública (preparação, emprego e logística).
    Ilustrativo: https://www.defesanet.com.br/seguranca/ccda-cuiaba-exercito-fecha-acao-de-defesa-da-copa/

  - Operação de Segurança das Eleições Nacionais - "Operação Cacique" em 21 tribos indígenas de difícil acesso.
    Ilustrativo:
    https://g1.globo.com/mato-grosso/eleicoes/2014/noticia/2014/10/exercito-deve-enviar-500-homens-para-garantir-votacao-em-21-aldeias-em-mt.html

  - Comandante da Força Terrestre na **Operação Ágata/2015**, combate ao tráfico de armas e drogas.

- Forte experiência administrativa, como Chefe do Estado-Maior do Comando Militar do Oeste (Campo Grande – MS – Brasil), gestão de projetos, gestão e racionalização administrativa, gestão de pessoal e gestão de material, entre outros:

  - Como Gerente da implantação do 1º Batalhão de Inteligência Militar – BIM.
  - como Gerente da implantação da 3ª Bateria de Artilharia Antiaérea.
  - A revisão e implementação de novos processos de segurança na Sede.

Desde novembro de 2019 encontra-se em atividade na Airbus-Helibras, no cargo de Gerente de Suporte e Vendas Militares, em particular em apoio à frota de helicópteros da Aviação do Exército Brasileiro. Nesse cargo, obteve diversas realizações e conduziu a negociação e fechamento de diversos contratos, tendo recebido a "Menção Honrosa" da pesquisa 2025, edição agosto/setembro, página 39, da revista especializada "Vertical Magazine" (https://issues.verticalmag.com/554/766/1745/V24I4/index.html?_gl=1*lvm9h7*_ga*MTA5NTAyMjIxNC4xNzYxMDg2OTg2*_ga_L93W1ECVS6*czE3NjEwODY5ODYkbzEkZzAkdDE3NjEwODY5ODYkajYwJGwwJGgw)

Contexto acadêmico

Formação:

- 1980-1983: Academia Militar das Agulhas Negras - (Resende - Brasil) - Bacharel em Ciências Militares.

- Piloto de Combate de Helicópteros com cursos na Força Aérea Brasileira, Aviação do Exército Brasileiro e Aviação do Exército da França.

Em nível de mestrado:

- 1992 - Operações Militares - Escola de Capitães – EsAO (Rio de Janeiro - RJ - Brasil).

- 2007 - 2008 - Especialista em Gestão, Comando e Estratégia – "College Interarmées de Défense" (Paris – França). Tese abordando a Estratégia Geral do Uso das Forças, com base em casos históricos. Paralelamente, obteve "Master" em História pela École Pratique des Hautes Études - EPHE - (Paris – França).

No nível de doutorado:

- 1998-1999 - Ciências Militares – Escola de Comando e Estado-Maior do Exército (Rio de Janeiro - RJ - Brasil).

Outros cursos e estágios na área de segurança:

- 2010 - Comando das Nações Unidas para as Operações de Paz – Instituto de Treinamento de Operações de Paz da ONU.
- 2010 - Observador Militar das Nações Unidas – Instituto de Treinamento de Operações de Paz da ONU.

Condecorações recebidas

Várias, a serem destacadas:

- Ordem do Mérito Militar (Brasil).
- Medalha do Pacificador (Brasil).
- Ordem do Mérito da Defesa (Brasil).
- Ordem do Mérito Naval (Brasil).
- Medalha do Mérito Tamandaré (Brasil).
- Medalha do Mérito Santos Dumont (Brasil).
- Medalha da Defesa Nacional (França).
- MINUSTAH – ONU – Força de Paz no Haiti.

Idiomas

- Fluente em francês e inglês, tanto oral quanto escrito.
- Bom nível de espanhol.

Nascido no Rio de Janeiro, Brasil - RJ, em 10 de junho de 1962.

02/02/2026

Dear Sir or Madam,

I work in the Department of Education and Research of the Brazilian Army, based in Rio de Janeiro. My name is Lourenço William da Silva Ribeiro Pinho, I am a Brigadier General retired from the Brazilian Army. My career includes several decades of service in military education, operational leadership, and strategic planning. I completed my academic formation at the Military Academy of Agulhas Negras in 1986, followed by Captain Advanced Course (1983) and the Army Command and Staff School (2001), where I also earned a master's degree in Military Sciences (2008). I hold a degree in Legal Sciences from Estácio de Sá University and a master's degree in National Strategy and Policy from the Superior War College in Argentina. Throughout my career, I held instructional, operational, and command positions in Brazil and abroad, including service as a United Nations military observer in Angola. I retired as a Brigadier General in the Brazilian Army.

I first met Mr Luiz Henrique Garcez Lotufo in 1985 when we were both Cadets at the Military Academy of Agulhas Negras. Our paths crossed again in 1993 during his Army Aviation Course, and later we worked closely in two consecutive professional periods. The first one was in the Third Army Aviation Battalion, between 2009/2010, when Mr. Lotufo served as the unit's Deputy Commander. I supervised his performance in coordinating the entire staff structure and in matters of personnel discipline. He was responsible for the complex transfer of the Helicopter Battalion from Taubaté, São Paulo, to Campo Grande, Mato Grosso do Sul, managing administrative and personnel matters with precision and full compliance with institutional regulations. During that same period, he contributed to the revision of operational norms for night vision goggle flights, visual night flights, and the maneuver manual for the Fennec aircraft, as well as to updates to the Campaign Manual of the Helicopter Battalion.

The second turn was when he served under my command at the Army Aviation Command as Chief of the Special Projects Section. I directly observed his coordination of projects of substantial technical complexity, including the modernization of the HA 1 and HM 1 aircraft, the expansion of the Army Aviation Command infrastructure, the night vision goggle project, the reception planning for the HM 5 Jaguar aircraft, and the evaluation of aviation materials. These activities demanded an advanced understanding of aeronautical processes, logistics, and operational requirements.

During his leadership of the Special Projects Section. Mr. Lotufo coordinated multiple large-scale initiatives simultaneously and oversaw multidisciplinary teams composed of senior professionals in aeronautical engineering, maintenance, logistics, and flight doctrine. He managed a team of 12 senior members on projects totaling about 1 billion reais. These efforts enabled important institutional advances such as the modernization of rotary wing platforms, the preparation of the Army Aviation structure for the arrival of new aircraft including sixteen Airbus EC 725 and twelve Sikorsky UH 60M, the creation of the Army

Aviation Simulation Center, the elevation of the Taubaté airfield to Air Traffic Control Center status and the technical evaluation of the EC 365 Pantera II.

The impact of his coordination was evident. The modernization projects increased aircraft availability, improved maintenance procedures, and strengthened logistical and training conditions within the Army Aviation. The night vision goggle project expanded operational capabilities by enhancing safety and efficiency during night missions. His work consistently demonstrated the ability to align technical, administrative, and doctrinal aspects in a coherent and effective manner. Throughout this period, I also noted his capacity to maintain sound judgment, ethical conduct, and reliable administrative oversight during activities involving substantial institutional responsibility.

From my direct experience, I consider Mr. Lotufo a highly qualified aviator and manager with strong coordination skills. His technical background is complemented by a composed and analytical disposition that supports complex decision-making. The combination of professional knowledge, administrative maturity, and stable interpersonal conduct was repeatedly demonstrated in demanding environments.

For these reasons, I support his application and believe the competencies he demonstrated throughout our years of collaboration will enable him to contribute consistently and responsibly in the context he intends to pursue.

Sincerely,

Lourenço William da Silva Ribeiro Pinho
lwilliampinho@gmail.com
+55 67 99934 3553

February 12, 2026

Luiz Fernando Estorilho Baganha,
LFBAG1@GMAIL.COM
+55 65 98175 4440

Immigration Officer,

My professional background, in the Brazilian army, includes my formation as an Infantry Officer at the Military Academy of Agulhas Negras, followed by advanced academic and operational training across several military institutions in Brazil and abroad. Over the course of my career, I completed the Infantry Officers Improvement Course, the Course on Command and General Staff, the Course on Policy Strategy and High Administration, the Superior Course on Defense, and additional qualifications in aviation, helicopter piloting, flight instruction, and operational doctrine. I also served as Deputy Military Advisor at Brazil's Permanent Mission to the United Nations in New York for two years and six months. My career has spanned instruction, command, operational planning, and international representation, allowing me to observe and assess high-level professional performance in complex environments.

My professional relationship with Luiz Henrique Garcez Lotufo began in mid-1998, when we were both selected to attend the Qualification Course on the UH-60 Black Hawk aircraft at the United States Army Aviation. After completing the course, we were assigned to the second contingent of the Army Aviation Detachment participating in the Military Observers Mission Ecuador Peru, known as MOMEP, during 1998 and 1999. When this mission ended, we resumed our professional collaboration at the Army Aviation Instruction Center, an organization I later commanded between 2006 and 2007. During that period, Mr. Lotufo served as Chief of the Employment and Piloting Section, where he coordinated and supervised all pilot training and aviation employment courses conducted by the Army Aviation. In addition to these duties, he contributed to the planning and preparation of instructional materials and program design for the Night Vision Goggles qualification stages within Army Aviation.

During the years he worked under my command, I had the opportunity to observe his technical competence in detail. His leadership in developing and implementing night-vision flight operations for Army Aviation was particularly notable. He contributed to the planning and preparation of instructional notes and to the definition of qualification stages for both pilots and flight mechanics. He also participated in the flight test campaign that led to the configuration of the first Fennec helicopter in Army Aviation for night vision operations. His participation supported the technical validation of procedures that were later used as a reference for configuring additional aircraft in the force.

The results of this project had a meaningful effect on the operational capability of Army Aviation. Establishing training stages for night vision piloting and night vision flight qualification enabled the consolidation of a consistent night flight doctrine across the force. This enabled the safe, standardized use of night vision systems across various aircraft and operational missions. By making aerial operations feasible in conditions of limited visibility, the initiative significantly expanded the reach and readiness of aviation units across the national territory. This impact demonstrated the practical value of Mr. Lotufo's contribution to improving the Brazilian Army Aviation pilots.

Given the measurable impact of his work, I am confident he will continue to deliver significant value in any future endeavor that leverages his technical expertise in rotary-wing operations, night-vision flight doctrine, and aviation safety to improve operational effectiveness and reduce risk.

Sincerely,

Luiz Fernando Estorilho Baganha
Brazilian Army

Curriculum Vitae - Resume
General LUIZ FERNANDO ESTORILHO **BAGANHA**

EDUCATION/ PROFESSIONAL QUALIFICATION

2015 Army Command and General Staff College – Course on Policy Strategy and High Administration

2015 Superior War College – Superior Course on Defense

2015 Foundation Getúlio Vargas - MBA in Project Management

2002-2003 Army Command and General Staff College – Course on Command and General Staff

1995-1999 University of Taubaté (SP) – Graduation in Law – Stricto Sensu

1996 Army Aviation Instruction Center – Aviation Advanced Course

1994Advanced School for Officers – Infantry Officers Improvement Course

1992 Army Aviation Instruction Center - Combat Pilot Course

1991 Army Aviation Instruction Center – Course on Qualification of Flight Instructors

1990 Air Force Academy – Brazilian Army Aviation Pilot

1983-1986 Military Academy of Agulhas Negras – Formation of Infantry Officer

PROFESSIONAL EXPERIENCE

2019 Secretariat of Security and Presidential Coordination of the Institutional Security Cabinet (GSI)

2017-2018 Directory of Military Staff Evaluation and Promotion Department

2016-2017 13th Motorized Infantry Brigade

2015-2016 Army Social Communication Center

2012-2013 Brazilian Joint Center of Peace Operations (CCOPAB) - Commander

2009-2011 Mission of Brazil to the United Nations (USA) – Military Advisor

2008-2009 Army Center of Intelligence – Analyst for North America, Central America and the Caribbean

2006-2007 Army Aviation Instruction Center - Commander

2004-2005 10th Motorized Infantry Brigade – Chief of Intelligence and Operations Sections and Legal Advisor

1998-1999 Mission of Military Observer Ecuador-Peru (MOMEP) – Operations and Logistics Officer of the Army Aviation Detachment

1995-1996 Army Aviation Instruction Center – Flight Instructor

1990-1993 Army Aviation Instruction Center - Flight Instructor

DECORATIONS

Order of Defense Merit, Order of Military Merit, Order of Naval Merit, Order of Aeronautic Merit, Medal Rio Branco Order of Commander, The Victory Medal, Golden Military Medal, Bronze Medal of Troop Corps, Pacification Medal, Bronze Medal of Amazon Service, Medal Marshall Trompowsky, Medal Tamandaré, Medal of Santos Dumont Merit, Medal Military Schools Award, Peace Mission Medal-Battalion Suez, Medal Barão de Capanema, Armed Forces Star of Ecuador and Golden Command Badge.

January 2, 2026

To Whom It May Concern,

My name is Ricardo José Nigri, and I currently serve as a General Officer in the Brazilian Army, an institution I joined in 1986 and in which I have built my entire professional career. I graduated from the Military Academy of Agulhas Negras, the institution responsible for the basic training for career officers in the Army, and over more than three decades, I have held command, leadership, and advisory positions across various military organizations. My experience includes commanding Aviation and Cavalry Units, serving as a United Nations military observer in Côte d'Ivoire, and participating in international assignments and training programs that contributed to my strategic, technical, and operational development. This broad professional background enables me to clearly assess the technical capability and professional conduct of those with whom I have had the opportunity to work.

I first met Luiz Henrique Garcez Lotufo during our time as contemporaries at the Military Academy of Agulhas Negras between 1986 and 1988. However, our professional relationship was consolidated years later when we served together at the 4th Army Aviation Battalion in Manaus, where we participated in numerous air missions in support of military units in the Amazon region and other federal government agencies. In this operational context, I observed his performance in high-responsibility activities in the Amazon environment, which require strong technical preparation and strict discipline. Subsequently, we worked together again at the Army Aviation Training Center, the unit responsible for doctrine and personnel training within Army Aviation. During this period, I closely followed Luiz Lotufo's work in the Operations and Flight Section, where he was responsible for planning and implementing the use of Night Vision Goggles (NVG) in Army aviation operations.

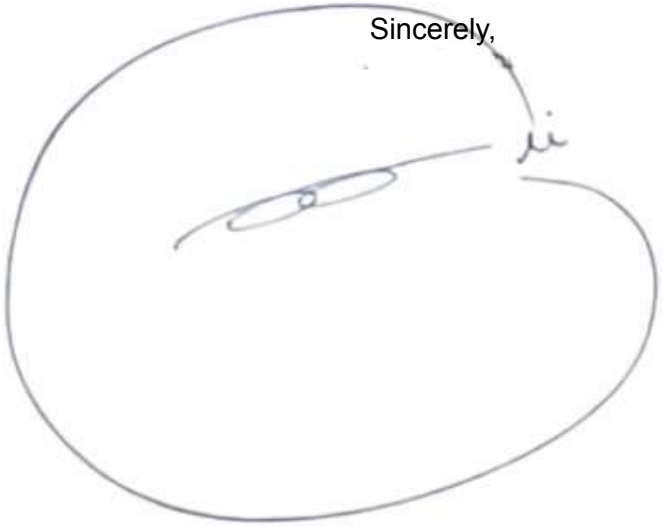
In this institutional environment, I observed how the applicant carried out activities including developing operational procedures, preparing instructional materials, and designing qualification programs for training pilots and flight mechanics. The project he led enabled the structuring of NVG Flight Training Programs and NVG Qualification Courses, representing important milestones in the modernization of Army Aviation. This initiative expanded the operational capabilities of air units by enabling the safe and precise execution of night missions while ensuring continuity of operations over a 24-hour cycle. The impact of this work established lasting technical foundations and strengthened the doctrine of night operations within the force.

Throughout this period, I observed in Luiz Lotufo qualities that distinguished him from his peers. He consistently demonstrated professionalism, exemplary conduct, and a high level of technical expertise, factors that directly contributed to his reputation as a highly qualified military professional. His pioneering role in implementing NVG operations, his commitment to training new generations of pilots, and his strong sense of responsibility reinforced his standing as a reference professional within Army Aviation.

Based on everything I have witnessed throughout our professional association, I fully support his current endeavor, firmly convinced that his professional background reflects

maturity, competence, and a solid trajectory that qualify him to make meaningful contributions in new contexts.

Sincerely,



Ricardo José Nigri
Brazilian Army
rjnigri@gmail.com
+55 61 98259-0905

I, Marina Viana Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that I have performed the professional translation of this document from Portuguese to English, as a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Marina Viana

Date: April, 24 2026

02 de janeiro 2026,
À quem possa interessar

Meu nome é Ricardo José Nigri e atualmente desempenho as funções de Oficial General do Exército Brasileiro, instituição na qual ingressei em 1986 e na qual construí toda a minha trajetória profissional. Sou formado pela Academia Militar das Agulhas Negras, curso que constitui a formação básica dos oficiais de carreira do Exército, e, ao longo de mais de três décadas, desempenhei funções de comando, chefia e assessoramento em diferentes organizações militares. Minha experiência inclui o comando de Unidades de Aviação e de Cavalaria, a atuação como observador militar da Organização das Nações Unidas na Costa do Marfim e a participação em cursos e funções no exterior, que contribuíram para minha formação estratégica, técnica e operacional. Essa vivência profissional abrangente permite que eu avalie com clareza a capacidade técnica e a conduta profissional daqueles com quem tive a oportunidade de trabalhar.

Conheci Luiz Henrique Garcez Lotufo durante o período em que fomos contemporâneos na Academia Militar das Agulhas Negras entre 1986 e 1988. Entretanto, nosso relacionamento profissional se consolidou anos depois, quando servimos juntos no 4º Batalhão de Aviação do Exército em Manaus, onde participamos de diversas missões aéreas em apoio a Organizações Militares da Amazônia e a outros órgãos do Governo Federal. Nesse contexto operacional, observei seu desempenho em atividades de elevada responsabilidade no ambiente amazônico, que exigem preparo técnico consistente e grande disciplina. Posteriormente, voltamos a trabalhar juntos no Centro de Instrução de Aviação do Exército, unidade responsável pela doutrina e pela formação dos quadros da Aviação do Exército. Nesse período, acompanhei de perto o trabalho desenvolvido por Luiz Henrique Lotufo na Seção de Emprego e Pilotagem, na qual foi responsável pelo planejamento e pela implementação do uso de óculos de Visão Noturna nas operações aéreas da Força.

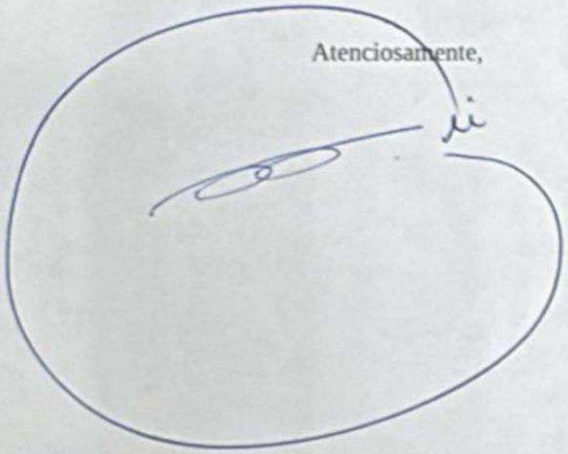
Nesse ambiente institucional, pude observar como o aplicante conduziu atividades que incluíram o desenvolvimento de procedimentos operacionais, a elaboração de Notas de Aula e a definição dos Programas de Qualificação destinados à instrução de pilotos e mecânicos de voo. O projeto liderado por ele permitiu estruturar os Estágios de Pilotagem com Óculos de Visão Noturna e de Qualificação ao Voo com Óculos de Visão Noturna, marcos importantes para a modernização da Aviação do Exército. Essa iniciativa ampliou a capacidade operacional das unidades aéreas ao possibilitar a execução segura e precisa de missões noturnas, além de assegurar a continuidade das operações ao longo das vinte e quatro horas do dia. O impacto desse trabalho consolidou bases técnicas duradouras e fortaleceu a doutrina de voo noturno no âmbito da Força.

Ao longo desse período, observei em Luiz Henrique Lotufo características que o diferenciaram de seus pares. Ele sempre demonstrou profissionalismo, postura modelar e elevado domínio técnico, fatores que contribuíram diretamente para sua reputação como militar altamente qualificado. Seu pioneirismo na implantação do voo com Óculos de Visão Noturna, seu compromisso com a formação de novas gerações de pilotos e sua conduta de absoluta responsabilidade reforçaram sua imagem como profissional de referência na Aviação do Exército.

Com base em tudo o que presenciei ao longo de nossa convivência institucional, apoio plenamente sua iniciativa atual, convicto de que seu histórico profissional demonstra

maturidade, competência e uma trajetória sólida que o habilita a contribuir de forma relevante em novos contextos.

Atenciosamente,



Ricardo José Nigri
Exército Brasileiro
rjnigri@gmail.com
+55 61 98259 0905

Lieutenant General **RICARDO NIGRI**

When nominated 5th Army Division Commander on august 2nd 2024, Gen NIGRI was serving as Deputy of Science and Technology Department.

He was promoted to the current rank on july 31th, 2022.

His commissions as a general officer was:

- 2nd Mechanized Cavalry Brigade Commander, based in Uruguaiana – RS;
- Army Aviation Commander, based in Taubaté – SP;
- Chief of Aviation, Peace Operations and Military Police, based in Brasília – DF;
- Deputy of Science and Technology Department, based in Brasília – DF; and
- 5th Army Division Commander, based in Curitiba – PR.

Born on May 13, 1967, in the city of Rio de Janeiro – RJ.

He joined the ranks of the Army on February 24, 1986. He was declared Aspirant of the Cavalry Branch on december 9, 1989. He attended the **Cavalary Advanced Course** in 1996 and the Army's Command and General Staff School in 2006 and 2007. He took the Helicopter Pilot course in 1993, the Combat Pilot course in 1998 and the Army Aviation Advanced course in 2001.

As a Cavalry officer, he was armor platoon leader and armor company commander.

Abroad, he attended the Black Hawk Pilot course in the US Army in 1999. He was a UN Military Observer in Côte d'Ivoire (ONUCI) in 2005, the French Army's Aviation Liaison Officer in 2010 and 2011 and took a Master's degree in National Strategy in Uruguay in 2015. He commanded the Army Aviation School, based in Taubaté-SP, in 2013 and 2014.

Exhibit C.II - Second Prong - Proof of High Salary and Financial Feasibility

NAME: LUIZ HENRIQUE GARCEZ LOTUFO
CPF: 081.112.348-05
ANNUAL ADJUSTMENT DECLARATION

INCOME TAX - INDIVIDUAL
TAX YEAR 2024 **CALENDAR YEAR 2023**

TAXPAYER IDENTIFICATION

Name:	LUIZ HENRIQUE GARCEZ LOTUFO	CPF:	081.112.348-05
Date of Birth:	10/05/1964	Voter ID:	241419630183
Do you have a spouse or partner?	Yes	CPF of the Spouse or partner:	098.696.318-60

Were you a resident abroad and became a resident in Brazil in 2023? No

Were there any changes to the registration details? No

Is one of the declarants a person with a serious illness or a physical or mental disability? No

Address:	RUA EMILIO WINTHER	Number:	597
Unit:	APT. 53 - TOWER 2	Neighborhood/District:	JARDIM DAS NACOES
City:	BELO HORIZONTE	State:	SP
ZIP Code:	12030-000	Area Code/Telephone:	(12) 3631-5911
Email:	LUIZLOTUFO@YAHOO.COM.BR	Area Code/Mobile:	(12) 99682-6912

Occupation Type: 61 - RETIRED PERSON, RESERVE OR RETIRED MILITARY PERSONNEL, AND SOCIAL SECURITY PENSIONER, EXCEPT THOSE COVERED BY CODE 62

Main Occupation:

Type of Declaration: Original Annual Adjustment Declaration

Receipt Number of the last declaration filed in the 2023 tax year: 11.25.03.36.22-80

DEPENDENTS

CODE	NAME	DATE OF BIRTH	CPF
11	SILVIA REGINA FARIA DOS SANTOS LOTUFO	05/18/1968	098.696.318-60
Email:	SILVIALOTUFO@YAHOO.COM.BR	Mobile: (12)997270071	
Does the dependent live with the taxpayer? Yes			
21	MARIA CLARA DOS SANTOS LOTUFO	01/05/2009	241.002.148-47
Email:	MARIACLARALOTUFO@ICLOUD.COM	Mobile: (12)991877436	
Does the dependent live with the taxpayer? No			

TOTAL DEDUCTION WITH DEPENDENTS 4,550.16

ALIMONY RECIPIENTS

No Information

TAXABLE INCOME RECEIVED FROM LEGAL ENTITY BY THE TAXPAYER

(Values in Reais)

NAME OF THE PAYING SOURCE	INCOME RECEIVED FROM LEGAL ENTITY	OFFICIAL SOCIAL SECURITY CONTRIBUTION	WITHHELD TAX	13th SALARY	INCOME TAX WITHHELD ON 13th SALARY
MINISTRY OF DEFENSE - BRAZILIAN ARMY - SEF - CPEX CNPJ/CPF: 00.394.452/0533-04	331,849.98	46,017.92	66,795.34	20,949.90	6,729.87
OMNI TAXI AEREO SA CNPJ/CPF: 03.670.763/0001-38	82,984.63	5,213.94	15,460.74	5,034.76	495.48
TOTAL	414,834.61	51,231.86	82,256.08	25,984.66	7,225.35

TAXABLE INCOME RECEIVED FROM LEGAL ENTITY BY DEPENDENTS

No information

TAXABLE INCOME RECEIVED FROM INDIVIDUALS AND ABROAD BY THE TAXPAYER

No information

TAXABLE INCOME RECEIVED FROM INDIVIDUALS AND ABROAD BY DEPENDENTS

No information

EXEMPT AND NON-TAXABLE INCOME

(Values in Reais)

12. Income from savings accounts, mortgage bonds, agribusiness, and real estate letters of credit (LCA and LCI), and certificates of agribusiness and real estate receivables (CRA and CRI)	3,920.96

Beneficiary	CPF	CNPJ of the Paying Source	Name of the Paying Source	Amount
Taxpayer	081.112.348-05	00.000.000/0001-91	BANCO DO BRASIL	3,920.96

TOTAL 3,920.96

INCOME SUBJECT TO EXCLUSIVE/DEFINITIVE TAXATION

(Values in Reais)

01. 13th salary	25,984.66
TOTAL	25,984.66

TAXABLE INCOME RECEIVED FROM LEGAL ENTITY BY THE TAXPAYER (TAX WITH SUSPENDED EXIGIBILITY)

No information

TAXABLE INCOME RECEIVED FROM LEGAL ENTITY BY THE DEPENDENTS (TAX WITH SUSPENDED EXIGIBILITY)

No information

TAXABLE INCOME FROM LEGAL ENTITY RECEIVED CUMULATIVELY BY THE TAXPAYER

No information

TAXABLE INCOME FROM LEGAL ENTITY RECEIVED CUMULATIVELY BY THE DEPENDENTS

No information

TAX PAID / WITHHELD

(Values in Reais)

01. Complementary Tax:	0,00
02. Tax paid abroad by the taxpayer and dependents	0,00
Tax due with income abroad	0,00
Tax due without income abroad	0,00
Difference to be considered for tax calculation (legal limit)	0,00
03. Income Tax Withheld at Source (Law 11.033/2004):	0,00
04. Income Tax Withheld at Source for the Taxpayer	82,256.08
05. Income Tax Withheld at Source for the Dependents	0,00
06. Taxpayer's Carnê-Leão	0,00
07. Dependent's Carnê-Leão	0,00

* CARNÊ-LEÃO - (Income tax that must be paid monthly, mandatorily, by individuals residing in Brazil who receive income from another individual or from abroad)

PAYMENTS MADE

(Values in Reais)

CODE	BENEFICIARY NAME	BENEFICIARY CPF/CNPJ	AMOUNT PAID	NON-DEDUCTIBLE PORTION
Taxpayer				
11	RITA DE CASSIA ANTUNES SPERANDEO	018.870.348-97	1,980.00	0,00
Description: DENTAL TREATMENT				
21	CLINICA MEDICA FERREIRA LEITA SC LTDA	03.487.304/0001-13	2,100.00	0,00
Description: MEDICAL CONSULTATION CONSULTATION AND FOLLOW-UP WITH NUTRITIONIST DOCTOR				
21	SUL AMERICA COMPANHIA DE SEGURO SAÚDE	01.685.053/0001 -56	1,248.86	0,00
Description: CORPORATE HEALTH INSURANCE PLAN				
26	MINISTRY OF DEFENSE - BRAZILIAN ARMY - SEF - CPEX	00.394.452/0533-04	331.96	0,00
Description: MEDICAL-DENTAL-HOSPITAL EXPENSES				
36	BRASILPREV PGBL	27.665.207/0001 -31	13,517.35	0,00
Description: PRIVATE PENSION				
Dependent: SILVIA REGINA FARIA DOS SANTOS LOTUFO				
21	PLASTCLIN	02.296.723/0001 -05	780.00	0,00
Description: MEDICAL SERVICES				
Dependent: MARIA CLARA DOS SANTOS LOTUFO				
01	ESCOLA JARDIM DAS NACOES LTDA	72.307.481 /0001 -93	23,051.66	0,00
Description: SCHOOL TUITION				
01	BOUTIQUE MIL FOLHAS	05.497.663/0001-87	2,785.00	0,00
Description:				
01	INSTITUTO DE ENSINO LOBATO JACOME	29.240.888/0001-11	278.00	0,00
Description: MATHEMATICS COURSE				
10	LISETE DE SOUZA VIDOTTO	082.4 73.548-02	1,350.00	0,00
Description: MEDICAL CONSULTATION				
12	ALINE C. ALEIXO	313.117.468-46	5,960.00	0,00
Description: PSYCHOTHERAPY SESSIONS				

DONATIONS MADE

No information

STATEMENTS OF ASSETS AND RIGHTS

(Values in Reais)

GROUP	CODE	DISCLOSURE	STATUS ON 12/31/2022	STATUS ON 12/31/2023

STATEMENTS OF ASSETS AND RIGHTS

(Values in Reais)

GROUP	CODE	DISCLOSURE	STATUS ON 12/31/2022	STATUS ON 12/31/2023
01	11	PURCHASE OF AN APARTMENT FINANCED BY BANCO DO BRASIL IN THE AMOUNT OF R$ 750,000.00. WITH R$ 200,000.00 FROM THE SALE OF APARTMENT 1004 LOCATED ON THE TENTH FLOOR OF DALLA ROSA CONDOMINIUM AND R$ 550,000.00 FROM FINANCING NO. 708.300.149 FROM BANCO DO BRASIL	1,100,000.00	1,100,000.00

105 - BRAZIL

Municipal Registration (IPTU): 16004082084

Address: RUA DR. EMILIO WINTHER
Unit: APARTMENT 53 - BLOCK 2
City: TAUBATÉ
Total Area: 176,8 m²
Registered at the Registry Office: Yes
Registration: 115475

No.: 597
Neighborhood: JARDIM DAS NACOES
State: SP ZIP Code: 12030-000
Acquisition Date: 03/28/2014
Name of the Registry Office: REAL ESTATE REGISTRY OFFICE OF TAUBATE

GROUP	CODE	DISCLOSURE	STATUS ON 12/31/2022	STATUS ON 12/31/2023
01	11	01 APARTMENT ACQUIRED THROUGH DEED IN LIEU OF REAL ESTATE IN PAYMENT OF 1/2 OF A PLOT OF LAND DESIGNATED AREA A, LOCATED IN THE VILA SAO JOSE NEIGHBORHOOD, IN TAUBATE, MEASURING 750.00 M2 FACING RUA PAULO SETUBAL	250,000.00	250,000.00

105 - BRAZIL

Municipal Registration (IPTU): 6300710401 9

Address: RUA JOSE ARISTIDES MONTEIRO
Unit:
City: TAUBATÉ
Total Area: 64,0 m²
Registered at the Registry Office: Yes
Registration: 163448

No.: 291
Neighborhood: VILA SAO JOSE
State: SP ZIP Code: 12070-560
Acquisition Date: 08/19/2022
Name of the Registry Office: REAL ESTATE REGISTRY OFFICE OF TAUBATE

GROUP	CODE	DISCLOSURE	STATUS ON 12/31/2022	STATUS ON 12/31/2023
02	01	TOYOTA RAV4 HBRIDO VEHICLE (GASOLINE/ELECTRIC) 25L SX4WD YEAR 2019 MODEL 2020	250,000.00	191,290.00

105 - BRAZIL

RENAVAM (National Registry of Motor Vehicles): 01221615316

STATEMENTS OF ASSETS AND RIGHTS

(Values in Reais)

GROUP	CODE	DISCLOSURE	STATUS ON 12/31/2022	STATUS ON 12/31/2023
04	01	BANCO DO BRASIL S/A GOLD SAVINGS ACCOUNT, BRANCH No. 68923-8	142,168.44	10,184.22
105 - BRAZIL				
Asset or right belonging to: Taxpayer CPF: 081.11 2.348-05 CNPJ: 00.000.000/0001-91				
Bank: 001 Branch: 7083 Account: 68923-8				
04	01	SAVINGS ACCOUNT - POUPEX No. 68923-8	40,983.14	11,325.27
105 - BRAZIL				
Asset or right belonging to: Taxpayer CPF: 081.11 2.348-05 CNPJ: 00.000.000/0001-91				
Bank: 001 Branch: 7083 Account: 68923-8				
06	01	BANCO DO BRASIL CHECKING ACCOUNT	12,778.58	5,310.22
105 - BRAZIL				
Asset or right belonging to: Taxpayer CPF: 081.11 2.348-05 CNPJ: 00.000.000/0001-91				
Bank: 001 Branch: 7083 Account: 68923-8				
06	01	BANCO DO BRASIL CHECKING ACCOUNT	3,511.11	16,421.16
105 - BRAZIL				
Asset or right belonging to: Taxpayer CPF: 081.11 2.348-05 CNPJ: 00.000.000/0001-91				
Bank: 001 Branch: 7083 Account: 13456-2				
TOTAL			1,799,441.27	1,584,530.87

ENCUMBRANCES AND REAL LIABILITIES

No information

DONATIONS TO POLITICAL PARTIES AND CANDIDATES FOR ELECTIVE OFFICES

No information

STATEMENT OF RURAL ACTIVITY – BRAZIL

IDENTIFICATION DATA OF THE EXPLORED PROPERTY - BRAZIL

No information

INCOME AND EXPENSES - BRAZIL

No information

CALCULATION OF THE RESULT – BRAZIL

No information

LIVESTOCK ACTIVITY - BRAZIL

No information

ASSETS OF RURAL ACTIVITY - BRAZIL

No information

DEBTS RELATED TO RURAL ACTIVITY - BRAZIL

No information

STATEMENT OF RURAL ACTIVITY – ABROAD

IDENTIFICATION DATA OF THE EXPLORED PROPERTY - ABROAD

No information

INCOME AND EXPENSES - ABROAD

No information

CALCULATION OF THE RESULT – ABROAD

No information

LIVESTOCK ACTIVITY - ABROAD

No information

ASSETS OF RURAL ACTIVITY - ABROAD

No information

DEBTS RELATED TO RURAL ACTIVITY - ABROAD

No information

STATEMENT OF CAPITAL GAINS CALCULATION

No Information

VARIABLE INCOME - COMMON OPERATIONS/DAY TRADE – TAXPAYER

NET GAINS OR LOSSES - JAN

No information

NET GAINS OR LOSSES - FEB

No information

NET GAINS OR LOSSES - MAR

No information

NET GAINS OR LOSSES - APR

No information

NET GAINS OR LOSSES - MAY

No information

NET GAINS OR LOSSES - JUN

No information

NET GAINS OR LOSSES - JUL

No Information

NET GAINS OR LOSSES - AUG

No Information

NET GAINS OR LOSSES - SEP

No Information

NET GAINS OR LOSSES - OCT

No Information

NET GAINS OR LOSSES - NOV

No Information

NET GAINS OR LOSSES - DEC

No Information

VARIABLE INCOME - COMMON OPERATIONS/DAY TRADE - DEPENDENTS

No information

REAL ESTATE INVESTMENT FUNDS OR IN AGRO-INDUSTRIAL PRODUCTION CHAINS - TAXPAYER

No information

REAL ESTATE INVESTMENT FUNDS OR IN AGRO-INDUSTRIAL PRODUCTION CHAINS - DEPENDENTS

No information

DONATIONS DIRECTLY IN THE DECLARATION – ECA (STATUTE OF THE CHILD AND ADOLESCENT)

No Information

DONATIONS DIRECTLY IN THE DECLARATION - ELDERLY

No Information

SUMMARY — TAXATION USING THE LEGAL DEDUCTION

TAXABLE INCOME

Received from Legal Entity by the taxpayer	414,834.61
Received from Legal Entity by dependents	0,00
Received from Individual/Abroad by the taxpayer	101,68
Received from Individual/Abroad by Dependents	0,00
Received Cumulatively by the taxpayer	0,00
Received Cumulatively by dependents	0,00
Taxable Income from Rural Activity	0,00
TOTAL	414,834.61

DEDUCTIONS

Contributions to the official and closed complementary pension systems referred to in § 15 of Article 40 of the CF (Federal Constitution)/1988 (up to the sponsor limit)	51,231.86
Contribution to the official pension system (Income received cumulatively)	0,00
Contribution to the complementary pension system, including the amount for the closed systems referred to in Article 40, § 15, of the CF (Federal Constitution)/1988, which exceeds the sponsor's limit	13,517.35
Dependents	4,550.16
Education Expenses	3,561.50
Medical Expenses	13,517.35
Judicial Alimony	0,00
Alimony by Public Deed	0,00
Judicial Alimony (Income received cumulatively)	0,00
Cash Book	0,00
TOTAL	86,611.69

TAX DUE

Tax Base	328,222.92
Tax Due	79,704.17
Incentive Deduction	0.00
Tax Due I	79,704.17
Tax Due RRA (on received accumulated income)	0.00
Effective Tax Rate (%)	19.21
Total Tax Due	23,707.30

TAX PAID

Tax Withheld at Source by the Taxpayer	82,256.08
Tax Withheld at Source by Dependents	0.00
Taxpayer's Carnê-Leão	0.00
Dependents' Carnê-Leão	0.00
Complementary Tax	0.00
Tax Paid Abroad	0.00
Tax Withheld at Source (Law No. 11.033/2004)	0.00
Tax Withheld RRA	0.00
Total Tax Paid	82,256.08

TAX TO BE REFUNDED	2,551.91
BALANCE OF TAX PAYABLE	0,00

INSTALLMENT PLAN

Installment Amount	0,00
Number of Installments	0

BANKING INFORMATION

Account Type	Checking Account
Bank	001
Branch (without verification digit)	7083
Account for credit	68923 8

ASSET EVOLUTION

Assets and Rights on 12/31/2022	1,799,441.27
Assets and Rights on 12/31/2023	1 ,584,530.87
Encumbrances and Real Liabilities on 12/31/2022	0.00
Encumbrances and Real Liabilities on 12/31/2023	0.00

OTHER INFORMATION

Exempt and non-taxable income	3,920.96
Income subject to exclusive/definitive taxation	25,984.66
Taxable income - tax with suspended liability	0.00
Judicial Deposits of Tax	0.00
Tax Paid on Capital Gains	0.00
Tax Paid on Capital Gains Foreign Currency - Assets, Rights, and Financial Investments	0.00
Total tax withheld at source (Law No. 11.033/2004), as per the data provided by the taxpayer	0.00
Tax Paid on Variable Income	0.00
Donations to Political Parties and Candidates for Elective Office	0.00
Tax Payable on Capital Gain - Foreign Currency in Cash	0.00
Deferred Tax on Capital Gains	0.00
Tax Due on Capital Gains	0.00
Tax Due on Net Income from Variable Income	0.00
Tax Due on Capital Gains in Foreign Currency - Assets, Rights, and Financial Investments	0.00

I, André Vinícius Inacio Penna Mello, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: April 28, 2026

NOME: LUIZ HENRIQUE GARCEZ LOTUFO
CPF: 081.112.348-05 **IMPOSTO SOBRE A RENDA - PESSOA FÍSICA**
DECLARAÇÃO DE AJUSTE ANUAL **EXERCÍCIO 2024** **ANO-CALENDÁRIO 2023**

IDENTIFICAÇÃO DO CONTRIBUINTE

Nome:	LUIZ HENRIQUE GARCEZ LOTUFO	CPF:	081.112.348-05
Data de Nascimento:	05/10/1964	Título Eleitoral:	241419630183
Possui cônjuge ou companheiro(a)?	Sim	CPF do cônjuge ou companheiro(a):	098.696.318-60

Era residente no exterior e passou a ser residente no Brasil em 2023? Não

Houve alteração de dados cadastrais? Não

Um dos declarantes é pessoa com doença grave ou portadora de deficiência física ou mental? Não

Endereço:	RUA EMILIO WINTHER	Número:	597
Complemento:	APTO 53 - TORRE 2	Bairro/Distrito:	JARDIM DAS NACOES
Município:	TAUBATÉ	UF:	SP
CEP:	12030-000	DDD/Telefone:	(12) 3631-5911
E-mail:	LUIZLOTUFO@YAHOO.COM.BR	DDD/Celular:	(12) 99682-6912

Natureza da Ocupação: 61 - APOSENTADO, MILITAR DA RESERVA OU REFORMADO E PENSIONISTA DE PREVIDÊNCIA, EXCETO OS ABRANGIDOS PELO CÓDIGO 62

Ocupação Principal:

Tipo de declaração: Declaração de Ajuste Anual Original

Nº do recibo da última declaração entregue do exercício de 2023: 11.25.03.36.22-80

PROTEGIDA POR SIGILO FISCAL

DEPENDENTES

CÓDIGO	NOME	DATA DE NASCIMENTO	CPF
11	SILVIA REGINA FARIA DOS SANTOS LOTUFO	18/05/1968	098.696.318-60
Email : SILVIALOTUFO@YAHOO.COM.BR		Celular : (12)997270071	
Dependente mora com o titular da declaração? Sim			
21	MARIA CLARA DOS SANTOS LOTUFO	05/01/2009	241.002.148-47
Email : MARIACLARALOTUFO@ICLOUD.COM		Celular : (12)991877436	
Dependente mora com o titular da declaração? Sim			

TOTAL DE DEDUÇÃO COM DEPENDENTES 4,550.16

ALIMENTANDOS

Sem Informações

RENDIMENTOS TRIBUTÁVEIS RECEBIDOS DE PESSOA JURÍDICA PELO TITULAR

(Valores em Reais)

NOME DA FONTE PAGADORA	REND. RECEBIDOS DE PES. JURÍDICA	CONTR. PREVID. OFICIAL	IMPOSTO RETIDO NA FONTE	13º SALÁRIO	IRRF SOBRE 13º SALÁRIO
MINISTERIO DA DEFESA-EXERCITO BRASILEIRO - SEF-CPEX CNPJ/CPF: 00.394.452/0533-04	331,849.98	46,017.92	66,795.34	20,949.90	6,729.87
OMNI TAXI AEREO SA CNPJ/CPF: 03.670.763/0001-38	82,984.63	5,213.94	15,460.74	5,034.76	495.48
TOTAL	414,834.61	51,231.86	82,256.08	25,984.66	7,225.35

RENDIMENTOS TRIBUTÁVEIS RECEBIDOS DE PESSOA JURÍDICA PELOS DEPENDENTES

Sem Informações

RENDIMENTOS TRIBUTÁVEIS RECEBIDOS DE PESSOA FÍSICA E DO EXTERIOR PELO TITULAR

Sem Informações

RENDIMENTOS TRIBUTÁVEIS RECEBIDOS DE PESSOA FÍSICA E DO EXTERIOR PELOS DEPENDENTES

Sem Informações

RENDIMENTOS ISENTOS E NÃO TRIBUTÁVEIS

(Valores em Reais)

12. Rendimentos de cadernetas de poupança, letras hipotecárias, letras de crédito do agronegócio e imobiliário (LCA e LCI) e certificados de recebíveis do agronegócio e imobiliários (CRA e CRI)	3,920.96

Beneficiário	CPF	CNPJ da Fonte Pagadora	Nome da Fonte Pagadora	Valor
Titular	081.112.348-05	00.000.000/0001-91	BANCO DO BRASIL	3,920.96

TOTAL	3,920.96

RENDIMENTOS SUJEITOS À TRIBUTAÇÃO EXCLUSIVA / DEFINITIVA

(Valores em Reais)

01. 13º salário	25,984.66
TOTAL	25,984.66

RENDIMENTOS TRIBUTÁVEIS RECEBIDOS DE PESSOA JURÍDICA PELO TITULAR (IMPOSTO COM EXIGIBILIDADE SUSPENSA)

Sem Informações

RENDIMENTOS TRIBUTÁVEIS RECEBIDOS DE PESSOA JURÍDICA PELOS DEPENDENTES (IMPOSTO COM EXIGIBILIDADE SUSPENSA)

Sem Informações

RENDIMENTOS TRIBUTÁVEIS DE PESSOA JURÍDICA RECEBIDOS ACUMULADAMENTE PELO TITULAR

Sem Informações

RENDIMENTOS TRIBUTÁVEIS DE PESSOA JURÍDICA RECEBIDOS ACUMULADAMENTE PELOS DEPENDENTES

Sem Informações

IMPOSTO PAGO / RETIDO

(Valores em Reais)

01. Imposto complementar	0.00
02. Imposto pago no exterior pelo titular e pelos dependentes	0.00
Imposto devido com os rendimentos no exterior	0.00
Imposto devido sem os rendimentos no exterior	0.00
Diferença a ser considerada para cálculo do imposto (limite legal)	0.00
03. Imposto sobre a renda na fonte (Lei 11.033/2004)	0.00
04. Imposto retido na fonte do titular	82,256.08
05. Imposto retido na fonte dos dependentes	0.00
06. Carnê-Leão do titular	0.00
07. Carnê-Leão dos dependentes	0.00

PROTEGIDA POR SIGILO FISCAL

PAGAMENTOS EFETUADOS

(Valores em Reais)

CÓD.	NOME DO BENEFICIÁRIO	CPF/CNPJ DO BENEFICIÁRIO	VALOR PAGO	PARC. NÃO DEDUTÍVEL
Titular				
11	RITA DE CASSIA ANTUNES SPERANDEO	018.870.348-97	1,980.00	0.00
Descrição: TRATAMENTO DENTARIO.				
21	CLINICA MEDICA FERREIRA LEITE SC LTDA	03.487.304/0001-13	2,100.00	0.00
Descrição: CUNSULTA MEDICA CONSULTA E ACOMPANHAMENTO COM NUTROLOGO				
21	SUL AMERICA COMPANHIA DE SEGURO SAÚDE	01.685.053/0001-56	1,248.86	0.00
Descrição: PLANO DE SAÚDE - EMPRESARIAL				
26	MINISTERIO DA DEFESA-EXERCITO BRASILEIRO - SEF-CPEX	00.394.452/0533-04	331.96	0.00
Descrição: DESPESAS MEDICO-ODONTO-HOSPITALARES				
36	BRASILPREV PGBL	27.665.207/0001-31	13,517.35	0.00
Descrição: PREVIDENCIA PRIVADA				
Dependente: SILVIA REGINA FARIA DOS SANTOS LOTUFO				
21	PLASTCLIN	02.296.723/0001-05	780.00	0.00
Descrição: SERVIÇO MÉDICO				
Dependente: MARIA CLARA DOS SANTOS LOTUFO				
01	ESCOLA JARDIM DAS NACOES LTDA	72.307.481/0001-93	23,051.66	0.00
Descrição: ANUIDADE ESCOLAR				
01	BOUTIQUE MIL FOLHAS	05.497.663/0001-87	2,785.00	0.00
Descrição:				
01	INSTITUTO DE ENSINO LOBATO JACOME	29.240.888/0001-11	278.00	0.00
Descrição: CURSO DE MATEMÁTICA				
10	LISETE DE SOUZA VIDOTTO	082.473.548-02	1,350.00	0.00
Descrição: CONSULTA MEDICA				
12	ALINE C. ALEIXO	313.117.468-46	5,960.00	0.00
Descrição: SESSÕES DE PSICOTERAPIA				

DOAÇÕES EFETUADAS

Sem Informações

DECLARAÇÃO DE BENS E DIREITOS

(Valores em Reais)

GRUPO	CÓDIGO	DISCRIMINAÇÃO	SITUAÇÃO EM 31/12/2022	SITUAÇÃO EM 31/12/2023

PROTEGIDA POR SIGILO FISCAL

DECLARAÇÃO DE BENS E DIREITOS

(Valores em Reais)

GRUPO	CÓDIGO	DISCRIMINAÇÃO	SITUAÇÃO EM 31/12/2022	SITUAÇÃO EM 31/12/2023
01	11	COMPRA DE UM APARTAMENTO FINANCIADO PELO BANCO DO BRASIL NO VALOR DE R$ 750.000,00. SENDO R$ 200.000,00 DA VENDA DO APARTAMENTO 1004 LOCALIZADO NO DECIMO PAVIMENTO DO CONDOMINIO DALLA ROSA E R$ 550.000,00 DO FINANCIAMENTO NO. 708.300.149 DO BANCO DO BRASIL.	1,100,000.00	1,100,000.00

105 - BRASIL

Inscrição Municipal (IPTU): 16004082084

Logradouro: RUA DR. EMILIO WINTHER
Nº: 597
Comp.: APARTAMENTO 53 - BLOCO 2
Bairro: JARDIM DAS NACOES
Município: TAUBATÉ
UF: SP CEP: 12030-000
Área Total: 176,8 m²
Data de Aquisição: 28/03/2014
Registrado no Cartório: Sim
Nome Cartório: CARTORIO DE REGISTRO DE IMOVEIS DE TAUBATE
Matrícula: 115475

GRUPO	CÓDIGO	DISCRIMINAÇÃO	SITUAÇÃO EM 31/12/2022	SITUAÇÃO EM 31/12/2023
01	11	01 APARTAMENTO ADQUIRIDO EM DACAO DE IMOVEL EM PAGAMENTO DE 1/2 DE UM TERRENO DESIGNADO AREA A , SITUADO NO BAIRRO VILA SAO JOSE, EM TAUBATE, MEDINDO 750,00 M2, DE FRENTE PARA A RUA PAULO SETUBAL.	250,000.00	250,000.00

105 - BRASIL

Inscrição Municipal (IPTU): 63007104019

Logradouro: RUA JOSE ARISTIDES MONTEIRO
Nº: 291
Comp.:
Bairro: VILA SAO JOSE
Município: TAUBATÉ
UF: SP CEP: 12070-560
Área Total: 64,0 m²
Data de Aquisição: 19/08/2022
Registrado no Cartório: Sim
Nome Cartório: CARTORIO DE REGISTRO DE IMOVEL DE TAUBATE
Matrícula: 163448

GRUPO	CÓDIGO	DISCRIMINAÇÃO	SITUAÇÃO EM 31/12/2022	SITUAÇÃO EM 31/12/2023
02	01	VEICULO TOYOTA RAV4 HBRIDO (GASOLINA/ELETRICO) 25L SX4WD ANO 2019 MODELO 2020	250,000.00	191,290.00

105 - BRASIL

RENAVAM: 01221615316

PROTEGIDA POR SIGILO FISCAL

DECLARAÇÃO DE BENS E DIREITOS

(Valores em Reais)

GRUPO	CÓDIGO	DISCRIMINAÇÃO	SITUAÇÃO EM 31/12/2022	SITUAÇÃO EM 31/12/2023
04	01	POUPANCA OURO BANCO DO BRASIL S/A, AG. 7083-1; CONTA NR. 68923-8	142,168.44	10,184.22

105 - BRASIL

Bem ou direito pertencente ao: Titular CPF: 081.112.348-05
CNPJ: 00.000.000/0001-91

Banco: 001 Agência: 7083 Conta: 68923-8

04	01	CADERNETA DE POUPANCA - POUPEX NR. 68923-8	40,983.14	11,325.27

105 - BRASIL

Bem ou direito pertencente ao: Titular CPF: 081.112.348-05
CNPJ: 00.000.000/0001-91

Banco: 001 Agência: 7083 Conta: 68923-8

06	01	CONTA CORRENTE BANCO DO BRASIL	12,778.58	5,310.22

105 - BRASIL

Bem ou direito pertencente ao: Titular CPF: 081.112.348-05
CNPJ: 00.000.000/0001-91

Banco: 001 Agência: 7083 Conta: 68923-8

06	01	CONTA CORRENTE BANCO DO BRASIL	3,511.11	16,421.16

105 - BRASIL

Bem ou direito pertencente ao: Titular CPF: 081.112.348-05
CNPJ: 00.000.000/0001-91

Banco: 001 Agência: 7083 Conta: 13456-2

TOTAL		1,799,441.27	1,584,530.87

DÍVIDAS E ÔNUS REAIS

Sem Informações

DOAÇÕES A PARTIDOS POLÍTICOS E CANDIDATOS A CARGOS ELETIVOS

Sem Informações

PROTEGIDA POR SIGILO FISCAL

DEMONSTRATIVO DE ATIVIDADE RURAL - BRASIL

DADOS E IDENTIFICAÇÃO DO IMÓVEL EXPLORADO - BRASIL

Sem Informações

RECEITAS E DESPESAS - BRASIL

Sem Informações

APURAÇÃO DO RESULTADO - BRASIL

Sem Informações

MOVIMENTAÇÃO DO REBANHO - BRASIL

Sem Informações

BENS DA ATIVIDADE RURAL - BRASIL

Sem Informações

DÍVIDAS VINCULADAS À ATIVIDADE RURAL - BRASIL

Sem Informações

PROTEGIDA POR SIGILO FISCAL

DEMONSTRATIVO DE ATIVIDADE RURAL - EXTERIOR

DADOS E IDENTIFICAÇÃO DO IMÓVEL EXPLORADO - EXTERIOR

Sem Informações

RECEITAS E DESPESAS - EXTERIOR

Sem Informações

APURAÇÃO DO RESULTADO - EXTERIOR

Sem Informações

MOVIMENTAÇÃO DO REBANHO - EXTERIOR

Sem Informações

BENS DA ATIVIDADE RURAL - EXTERIOR

Sem Informações

DÍVIDAS VINCULADAS À ATIVIDADE RURAL - EXTERIOR

Sem Informações

DEMONSTRATIVO DA APURAÇÃO DOS GANHOS DE CAPITAL

Sem Informações

PROTEGIDA POR SIGILO FISCAL

RENDA VARIÁVEL - OPERAÇÕES COMUNS/DAYTRADE - TITULAR

GANHOS LÍQUIDOS OU PERDAS - JAN

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - FEV

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - MAR

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - ABR

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - MAI

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - JUN

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - JUL

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - AGO

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - SET

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - OUT

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - NOV

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - DEZ

Sem Informações

RENDA VARIÁVEL - OPERAÇÕES COMUNS/DAYTRADE - DEPENDENTES

Sem Informações

FUNDOS DE INVESTIMENTO IMOBILIÁRIO OU NAS CADEIAS PRODUTIVAS AGROINDUSTRIAIS - TITULAR

Sem Informações

FUNDOS DE INVESTIMENTO IMOBILIÁRIO OU NAS CADEIAS PRODUTIVAS AGROINDUSTRIAIS - DEPENDENTES

Sem Informações

DOAÇÕES DIRETAMENTE NA DECLARAÇÃO - ECA

Sem Informações

DOAÇÕES DIRETAMENTE NA DECLARAÇÃO - IDOSO

Sem Informações

PROTEGIDA POR SIGILO FISCAL

NOME: LUIZ HENRIQUE GARCEZ LOTUFO
CPF: 081.112.348-05 **IMPOSTO SOBRE A RENDA - PESSOA FÍSICA**
DECLARAÇÃO DE AJUSTE ANUAL **EXERCÍCIO 2024** **ANO-CALENDÁRIO 2023**

RESUMO — TRIBUTAÇÃO UTILIZANDO AS DEDUÇÕES LEGAIS

RENDIMENTOS TRIBUTÁVEIS

Recebidos de Pessoa Jurídica pelo titular	414,834.61
Recebidos de Pessoa Jurídica pelos dependentes	0.00
Recebidos de Pessoa Física/Exterior pelo titular	0.00
Recebidos de Pessoa Física/Exterior pelos dependentes	0.00
Recebidos acumuladamente pelo titular	0.00
Recebidos acumuladamente pelos dependentes	0.00
Resultado tributável da Atividade Rural	0.00
TOTAL	414,834.61

DEDUÇÕES

Contribuições às previdências oficial e complementar fechada de que trata o § 15 do art. 40 da CF/1988 (até o limite do patrocinador)	51,231.86
Contribuição à previdência oficial (Rendimentos recebidos acumuladamente)	0.00
Contribuição à prev. complementar, inclusive o valor para as fechadas de que trata o § 15 do art. 40 da CF/1988 que exceder o limite do patrocinador	13,517.35
Dependentes	4,550.16
Despesas com instrução	3,561.50
Despesas médicas	13,750.82
Pensão alimentícia judicial	0.00
Pensão alimentícia por escritura pública	0.00
Pensão alimentícia judicial (Rendimentos recebidos acumuladamente)	0.00
Livro caixa	0.00
TOTAL	86,611.69

IMPOSTO DEVIDO

Base de cálculo do imposto	328,222.92
Imposto devido	79,704.17
Dedução de incentivo	0.00
Imposto devido I	79,704.17
Imposto devido RRA	0.00
Aliquota efetiva (%)	19.21
Total do imposto devido	79,704.17

IMPOSTO PAGO

Imposto retido na fonte do titular	82,256.08
Imp. retido na fonte dos dependentes	0.00
Carnê-Leão do titular	0.00
Carnê-Leão dos dependentes	0.00
Imposto complementar	0.00
Imposto pago no exterior	0.00
Imposto retido na fonte (Lei nº 11.033/2004)	0.00
Imposto retido RRA	0.00
Total do imposto pago	82,256.08

IMPOSTO A RESTITUIR	2,551.91
SALDO DE IMPOSTO A PAGAR	0.00

PARCELAMENTO

Valor da quota	0.00
Número de Quotas	0

INFORMAÇÕES BANCÁRIAS

Tipo de Conta	Conta Corrente
Banco	001
Agência (sem DV)	7083
Conta para crédito	68923 8

PROTEGIDA POR SIGILO FISCAL

EVOLUÇÃO PATRIMONIAL

Bens e direitos em 31/12/2022	1,799,441.27
Bens e direitos em 31/12/2023	1,584,530.87
Dívidas e ônus reais em 31/12/2022	0.00
Dívidas e ônus reais em 31/12/2023	0.00

OUTRAS INFORMAÇÕES

Rendimentos isentos e não tributáveis	3,920.96
Rendimentos sujeitos à tributação exclusiva/definitiva	25,984.66
Rendimentos tributáveis - imposto com exigibilidade suspensa	0.00
Depósitos judiciais do imposto	0.00
Imposto pago sobre Ganhos de Capital	0.00
Imposto pago Ganhos de Capital Moeda Estrangeira - Bens, direitos e Aplicações Financeiras	0.00
Total do imposto retido na fonte (Lei nº11.033/2004), conforme dados informados pelo contribuinte	0.00
Imposto pago sobre Renda Variável	0.00
Doações a Partidos Políticos e Candidatos a Cargos Eletivos	0.00
Imposto a pagar sobre o Ganho de Capital - Moeda Estrangeira em Espécie	0.00
Imposto diferido dos Ganhos de Capital	0.00
Imposto devido sobre Ganhos de Capital	0.00
Imposto devido sobre ganhos líquidos em Renda Variável	0.00
Imposto devido sobre Ganhos de Capital Moeda Estrangeira - Bens, direitos e aplic. financeiras	0.00

PROTEGIDA POR SIGILO FISCAL

NAME: LUIZ HENRIQUE GARCEZ LOTUFO
CPF: 081.112.348-05
ANNUAL ADJUSTMENT DECLARATION

INCOME TAX - INDIVIDUAL
TAX YEAR 2025 **CALENDAR YEAR 2024**

TAXPAYER IDENTIFICATION

Name:	LUIZ HENRIQUE GARCEZ LOTUFO	CPF:	081.112.348-05
Date of Birth:	10/05/1964		
Do you have a spouse or partner?	Yes	CPF of the Spouse or partner:	098.696.318-60

Were you a resident abroad and became a resident in Brazil in 2024? No

Were there any changes to the registration details? No

Is one of the declarants a person with a serious illness or a physical or mental disability? No

Address:	RUA EMILIO WINTHER	Number:	597
Unit:	APT. 53 - TOWER 2	Neighborhood/District:	JARDIM DAS NACOES
City:	BELO HORIZONTE	State:	SP
ZIP Code:	12030-000	Area Code/Telephone:	(12) 3631-5911
Email:	LUIZLOTUFO@YAHOO.COM.BR	Area Code/Mobile:	(12) 99682-6912

Occupation Type: 61 - RETIRED PERSON, RESERVE OR RETIRED MILITARY PERSONNEL, AND SOCIAL SECURITY PENSIONER, EXCEPT THOSE COVERED BY CODE 62

Main Occupation:

Type of Declaration: Original Annual Adjustment Declaration

Receipt Number of the last declaration filed in the 2024 tax year: 42.32.69.81.17-01

DEPENDENTS

CODE	NAME	DATE OF BIRTH	CPF
11	SILVIA REGINA FARIA DOS SANTOS LOTUFO	05/18/1968	098.696.318-60
Email:	SILVIALOTUFO@YAHOO.COM.BR	Mobile: (12)997270071	
Does the dependent live with the taxpayer? Yes			
21	MARIA CLARA DOS SANTOS LOTUFO	01/05/2009	241.002.148-47
Email:	MARIACLARALOTUFO@ICLOUD.COM	Mobile: (12)991877436	
Does the dependent live with the taxpayer? No			
TOTAL DEDUCTION WITH DEPENDENTS			4,550.16

ALIMONY RECIPIENTS

No Information

TAXABLE INCOME RECEIVED FROM LEGAL ENTITY BY THE TAXPAYER

(Values in Reais)

NAME OF THE PAYING SOURCE	INCOME RECEIVED FROM LEGAL ENTITY	OFFICIAL SOCIAL SECURITY CONTRIBUTION	WITHHELD TAX	13th SALARY	INCOME TAX WITHHELD ON 13th SALARY
MINISTRY OF DEFENSE - BRAZILIAN ARMY - SEF - CPEX CNPJ/CPF: 00.394.452/0533-04	336,659.40	46,795.32	67,720.32	20,960.94	6,714.83
OMNI TAXI AEREO SA CNPJ/CPF: 03.670.763/0001-38	185,307.33	10,874.30	37,239.15	12,476.21	3,123.84
TOTAL	. 521,966.73	57,669.62	104,959.47	33,437.15	9,838.67

TAXABLE INCOME RECEIVED FROM LEGAL ENTITY BY DEPENDENTS

No information

TAXABLE INCOME RECEIVED FROM INDIVIDUALS AND ABROAD BY THE TAXPAYER

No information

TAXABLE INCOME RECEIVED FROM INDIVIDUALS AND ABROAD BY DEPENDENTS

No information

EXEMPT AND NON-TAXABLE INCOME

(Values in Reais)

12. Income from savings accounts, mortgage bonds, agribusiness, and real estate letters of credit (LCA and LCI), and certificates of agribusiness and real estate receivables (CRA and CRI)	5,483.15

Beneficiary	CPF	CNPJ of the Paying Source	Name of the Paying Source	Amount
Taxpayer	081.112.348-05	00.000.000/0001-91	BANCO DO BRASIL	5,483.15

TOTAL 5,483.15

INCOME SUBJECT TO EXCLUSIVE/DEFINITIVE TAXATION

(Values in Reais)

01. 13th salary	33,437.15
TOTAL	33,437.15

TAXABLE INCOME RECEIVED FROM LEGAL ENTITY BY THE TAXPAYER (TAX WITH SUSPENDED EXIGIBILITY)

No information

TAXABLE INCOME RECEIVED FROM LEGAL ENTITY BY THE DEPENDENTS (TAX WITH SUSPENDED EXIGIBILITY)

No information

TAXABLE INCOME FROM LEGAL ENTITY RECEIVED CUMULATIVELY BY THE TAXPAYER

No information

TAXABLE INCOME FROM LEGAL ENTITY RECEIVED CUMULATIVELY BY THE DEPENDENTS

No information

TAX PAID / WITHHELD

(Values in Reais)

01. Complementary Tax:	0,00
02. Tax paid abroad by the taxpayer and dependents	0,00
Tax due with income abroad	0,00
Tax due without income abroad	0,00
Difference to be considered for tax calculation (legal limit)	0,00
03. Income Tax Withheld at Source (Law 11.033/2004):	0,00
04. Income Tax Withheld at Source for the Taxpayer	104,959.47
05. Income Tax Withheld at Source for the Dependents	0,00
06. Taxpayer's Carnê-Leão	0,00
07. Dependent's Carnê-Leão	0,00

* CARNÊ-LEÃO - (Income tax that must be paid monthly, mandatorily, by individuals residing in Brazil who receive income from another individual or from abroad)

PAYMENTS MADE

(Values in Reais)

CODE	BENEFICIARY NAME	BENEFICIARY CPF/CNPJ	AMOUNT PAID	NON-DEDUCTIBLE PORTION
Taxpayer				
11	RITA DE CASSIA ANTUNES SPERANDEO	018.870.348-97	12,030.00	0,00
Description: DENTAL TREATMENT				
21	CLINICA MEDICA FERREIRA LEITA SC LTDA	03.487.304/0001-13	900.00	0,00
Description: MEDICAL CONSULTATION CONSULTATION AND FOLLOW-UP WITH NUTRITIONIST DOCTOR				
21	SUL AMERICA COMPANHIA DE SEGURO SAÚDE	01.685.053/0001-56	1,819.72	0,00
Description: CORPORATE HEALTH INSURANCE PLAN				
21	X SLICE TOMOGRAFIA COMP. E DIAGNOSTICO ODONTOLOGICO LTDA	10.996.926/0001-32	500.00	0,00
Description: ORTHODONTIC DOCUMENTATION EXAMINATION AND DIGITAL SCANNING				
36	BRASILPREV PGBL	27.665.207/0001 -31	19,686.68	0,00
Description: PRIVATE PENSION				
Dependent: SILVIA REGINA FARIA DOS SANTOS LOTUFO				
21	PLATDERM	46.406.580/0001-12	300.00	0,00
Description: DERMATOLOGICAL CONSULTATION				
Dependent: MARIA CLARA DOS SANTOS LOTUFO				
01	ESCOLA JARDIM DAS NACOES LTDA	72.307.481 /0001 -93	27,451.90	0,00
Description: SCHOOL TUITION				
01	BOUTIQUE MIL FOLHAS	05.497.663/0001-87	322.00	0,00
Description:				
10	LISETE DE SOUZA VIDOTTO	082.4 73.548-02	1,500.00	0,00
Description: MEDICAL CONSULTATION				
12	CLÁUDIA LÚCIA CALEGARI TEIXEIRA	051.517.888-84	4,050.00	0,00
Description: PSYCHOTHERAPY SESSIONS				

DONATIONS MADE

No information

STATEMENTS OF ASSETS AND RIGHTS

(Values in Reais)

Did you update the value of any real estate property and pay the capital gain tax by 12/16/2024 in accordance with Law No. 14.973/2024?	No

GROUP	CODE	DISCLOSURE	STATUS ON 12/31/2023	STATUS ON 12/31/2024
01	11	PURCHASE OF AN APARTMENT FINANCED BY BANCO DO BRASIL IN THE AMOUNT OF R$ 750,000.00. WITH R$ 200,000.00 FROM THE SALE OF APARTMENT 1004 LOCATED ON THE TENTH FLOOR OF DALLA ROSA CONDOMINIUM AND R$ 550,000.00 FROM FINANCING NO. 708.300.149 FROM BANCO DO BRASIL	1,100,000.00	1,100,000.00

105 - BRAZIL

Municipal Registration (IPTU): 16004082084

Address: RUA DR. EMILIO WINTHER
Unit: APARTMENT 53 - BLOCK 2
City: TAUBATÉ
Total Area: 176,8 m²
Registered at the Registry Office: Yes
Registration: 115475

No.: 597
Neighborhood: JARDIM DAS NACOES
State: SP ZIP Code: 12030-000
Acquisition Date: 03/28/2014
Name of the Registry Office: REAL ESTATE REGISTRY OFFICE OF TAUBATE

01	11	01 APARTMENT ACQUIRED THROUGH DEED IN LIEU OF REAL ESTATE IN PAYMENT OF 1/2 OF A PLOT OF LAND DESIGNATED AREA A, LOCATED IN THE VILA SAO JOSE NEIGHBORHOOD, IN TAUBATE, MEASURING 750.00 M2 FACING RUA PAULO SETUBAL. NOTE: PROPERTY SOLD IN 05/2024 AMOUNT R$220,000.00	250,000.00	0.00

105 - BRAZIL

Municipal Registration (IPTU): 6300710401 9

Address: RUA JOSE ARISTIDES MONTEIRO
Unit:
City: TAUBATÉ
Total Area: 64,0 m²
Registered at the Registry Office: Yes
Registration: 163448

No.: 291
Neighborhood: VILA SAO JOSE
State: SP ZIP Code: 12070-560
Acquisition Date: 08/19/2022
Name of the Registry Office: REAL ESTATE REGISTRY OFFICE OF TAUBATE

02	01	TOYOTA RAV4 HBRIDO VEHICLE (GASOLINE/ELECTRIC) 25L SX4WD YEAR 2019 MODEL 2020	191,290.00	191,290.00

105 - BRAZIL

RENAVAM (National Registry of Motor Vehicles): 01221615316

04	01	BANCO DO BRASIL S/A GOLD SAVINGS ACCOUNT, BRANCH No. 68923-8	10,184.22	3.88

105 - BRAZIL

Asset or right belonging to: Taxpayer CPF: 081.11 2.348-05
CNPJ: 00.000.000/0001-91

Bank: 001 Branch: 7083 Account: 68923-8

STATEMENTS OF ASSETS AND RIGHTS

(Values in Reais)

Did you update the value of any real estate property and pay the capital gain tax by 12/16/2024 in accordance with Law No. 14.973/2024?	No

GROUP	CODE	DISCLOSURE	STATUS ON 12/31/2023	STATUS ON 12/31/2024
04	01	SAVINGS ACCOUNT - POUPEX No. 68923-8	11,325.27	2,675.08

105 - BRAZIL

Asset or right belonging to: Taxpayer CPF: 081.11 2.348-05
CNPJ: 00.000.000/0001-91

Bank: 001 Branch: 7083 Account: 68923-8

GROUP	CODE	DISCLOSURE	STATUS ON 12/31/2023	STATUS ON 12/31/2024
06	01	BANCO DO BRASIL CHECKING ACCOUNT	5,310.22	15,443.68

105 - BRAZIL

Asset or right belonging to: Taxpayer CPF: 081.11 2.348-05
CNPJ: 00.000.000/0001-91

Bank: 001 Branch: 7083 Account: 68923-8

GROUP	CODE	DISCLOSURE	STATUS ON 12/31/2023	STATUS ON 12/31/2024
06	01	BANCO DO BRASIL CHECKING ACCOUNT	16,421.16	3,078.05

105 - BRAZIL

Asset or right belonging to: Taxpayer CPF: 081.11 2.348-05
CNPJ: 00.000.000/0001-91

Bank: 001 Branch: 7083 Account: 13456-2 Payment Account? No

TOTAL		1,584,530.87	1,312,489.89

ENCUMBRANCES AND REAL LIABILITIES

No information

DONATIONS TO POLITICAL PARTIES AND CANDIDATES FOR ELECTIVE OFFICES

No information

STATEMENT OF RURAL ACTIVITY – BRAZIL

IDENTIFICATION DATA OF THE EXPLORED PROPERTY - BRAZIL

No information

INCOME AND EXPENSES - BRAZIL

No information

CALCULATION OF THE RESULT – BRAZIL

No information

LIVESTOCK ACTIVITY - BRAZIL

No information

ASSETS OF RURAL ACTIVITY - BRAZIL

No information

DEBTS RELATED TO RURAL ACTIVITY - BRAZIL

No information

STATEMENT OF RURAL ACTIVITY – ABROAD

IDENTIFICATION DATA OF THE EXPLORED PROPERTY - ABROAD

No information

INCOME AND EXPENSES - ABROAD

No information

CALCULATION OF THE RESULT – ABROAD

No information

LIVESTOCK ACTIVITY - ABROAD

No information

ASSETS OF RURAL ACTIVITY - ABROAD

No information

DEBTS RELATED TO RURAL ACTIVITY - ABROAD

No information

STATEMENT OF CAPITAL GAINS CALCULATION

No Information

VARIABLE INCOME - COMMON OPERATIONS/DAY TRADE – TAXPAYER

NET GAINS OR LOSSES - JAN

No information

NET GAINS OR LOSSES - FEB

No information

NET GAINS OR LOSSES - MAR

No information

NET GAINS OR LOSSES - APR

No information

NET GAINS OR LOSSES - MAY

No information

NET GAINS OR LOSSES - JUN

No information

NET GAINS OR LOSSES - JUL

No Information

NET GAINS OR LOSSES - AUG

No Information

NET GAINS OR LOSSES - SEP

No Information

NET GAINS OR LOSSES - OCT

No Information

NET GAINS OR LOSSES - NOV

No Information

NET GAINS OR LOSSES - DEC

No Information

VARIABLE INCOME - COMMON OPERATIONS/DAY TRADE - DEPENDENTS

No information

REAL ESTATE INVESTMENT FUNDS OR IN AGRO-INDUSTRIAL PRODUCTION CHAINS - TAXPAYER

No information

REAL ESTATE INVESTMENT FUNDS OR IN AGRO-INDUSTRIAL PRODUCTION CHAINS - DEPENDENTS

No information

DONATIONS DIRECTLY IN THE DECLARATION – ECA (STATUTE OF THE CHILD AND ADOLESCENT)

No Information

DONATIONS DIRECTLY IN THE DECLARATION - ELDERLY

No Information

SUMMARY — TAXATION USING THE LEGAL DEDUCTION

TAXABLE INCOME

Received from Legal Entity by the taxpayer	521,966.73
Received from Legal Entity by dependents	0,00
Received from Individual/Abroad by the taxpayer	101,68
Received from Individual/Abroad by Dependents	0,00
Received Cumulatively by the taxpayer	0,00
Received Cumulatively by dependents	0,00
Taxable Income from Rural Activity	0,00
TOTAL	521,966.73

DEDUCTIONS

Contributions to the official and closed complementary pension systems referred to in § 15 of Article 40 of the CF (Federal Constitution)/1988 (up to the sponsor limit)	57,669.62
Contribution to the official pension system (Income received cumulatively)	0,00
Contribution to the complementary pension system, including the amount for the closed systems referred to in Article 40, § 15, of the CF (Federal Constitution)/1988, which exceeds the sponsor's limit	19,686.68
Dependents	4,550.16
Education Expenses	3,561.50
Medical Expenses	21,099.72
Judicial Alimony	0,00
Alimony by Public Deed	0,00
Judicial Alimony (Income received cumulatively)	0,00
Cash Book	0,00
TOTAL	106,567.68

TAX DUE

Tax Base	415,399.05
Tax Due	103,493.75
Incentive Deduction	0.00
Tax Due I	103,493.75
Tax Due RRA (on received accumulated income)	0.00
Effective Tax Rate (%)	19.82
Total Tax Due	103,493.75

TAX PAID

Tax Withheld at Source by the Taxpayer	104,959.47
Tax Withheld at Source by Dependents	0.00
Taxpayer's Carnê-Leão	0.00
Dependents' Carnê-Leão	0.00
Complementary Tax	0.00
Tax Paid Abroad	0.00
Tax Withheld at Source (Law No. 11.033/2004)	0.00
Tax Withheld RRA	0.00
Total Tax Paid	104,959.47

TAX TO BE REFUNDED	1,465.72
BALANCE OF TAX PAYABLE	0,00

INSTALLMENT PLAN

Installment Amount	0,00
Number of Installments	0

BANKING INFORMATION

Account Type	Checking Account
Bank	001
Branch (without verification digit)	7083
Account for credit	68923 8

ASSET EVOLUTION

Assets and Rights on 12/31/2022	1 584,530.87
Assets and Rights on 12/31/2023	1,312,489.89
Encumbrances and Real Liabilities on 12/31/2022	0.00
Encumbrances and Real Liabilities on 12/31/2023	0.00

OTHER INFORMATION

Exempt and non-taxable income	5,483.15
Income subject to exclusive/definitive taxation	33,437.15
Taxable income - tax with suspended liability	0.00
Judicial Deposits of Tax	0.00
Tax Paid on Capital Gains	0.00
Tax Paid on Capital Gains Foreign Currency - Assets, Rights, and Financial Investments	0.00
Total tax withheld at source (Law No. 11.033/2004), as per the data provided by the taxpayer	0.00
Tax Paid on Variable Income	0.00
Donations to Political Parties and Candidates for Elective Office	0.00
Tax Payable on Capital Gain - Foreign Currency in Cash	0.00
Deferred Tax on Capital Gains	0.00
Tax Due on Capital Gains	0.00
Tax Due on Net Income from Variable Income	0.00
Tax Due on Capital Gains in Foreign Currency - Assets, Rights, and Financial Investments	0.00

I, André Vinícius Inacio Penna Mello, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: April 28, 2026

NOME: LUIZ HENRIQUE GARCEZ LOTUFO
CPF: 081.112.348-05 **IMPOSTO SOBRE A RENDA - PESSOA FÍSICA**
DECLARAÇÃO DE AJUSTE ANUAL **EXERCÍCIO 2025** **ANO-CALENDÁRIO 2024**

IDENTIFICAÇÃO DO CONTRIBUINTE

Nome:	LUIZ HENRIQUE GARCEZ LOTUFO	CPF:	081.112.348-05
Data de Nascimento:	05/10/1964		
Possui cônjuge ou companheiro(a)?	Sim	CPF do cônjuge ou companheiro(a):	098.696.318-60

Era residente no exterior e passou a ser residente no Brasil em 2024? Não

Houve alteração de dados cadastrais? Não

Um dos declarantes é pessoa com doença grave ou portadora de deficiência física ou mental? Não

Endereço:	RUA EMILIO WINTHER	Número:	597
Complemento:	APTO 53 - TORRE 2	Bairro/Distrito:	JARDIM DAS NACOES
Município:	TAUBATÉ	UF:	SP
CEP:	12030-000	DDD/Telefone:	(12) 3631-5911
E-mail:	LUIZLOTUFO@YAHOO.COM.BR	DDD/Celular:	(12) 99682-6912

Natureza da Ocupação: 61 - APOSENTADO, MILITAR DA RESERVA OU REFORMADO E PENSIONISTA DE PREVIDÊNCIA, EXCETO OS ABRANGIDOS PELO CÓDIGO 62

Ocupação Principal:

Tipo de declaração: Declaração de Ajuste Anual Original

Nº do recibo da última declaração entregue do exercício de 2024: 42.32.69.81.17-01

DECLARAÇÃO EM PREENCHIMENTO

DEPENDENTES

CÓDIGO	NOME	DATA DE NASCIMENTO	CPF
11	SILVIA REGINA FARIA DOS SANTOS LOTUFO	18/05/1968	098.696.318-60
Email : SILVIALOTUFO@YAHOO.COM.BR		Celular : (12)997270071	
Dependente mora com o titular da declaração? Sim			
21	MARIA CLARA DOS SANTOS LOTUFO	05/01/2009	241.002.148-47
Email : MARIACLARALOTUFO@ICLOUD.COM		Celular : (12)991877436	
Dependente mora com o titular da declaração? Sim			

TOTAL DE DEDUÇÃO COM DEPENDENTES 4,550.16

ALIMENTANDOS

Sem Informações

RENDIMENTOS TRIBUTÁVEIS RECEBIDOS DE PESSOA JURÍDICA PELO TITULAR

(Valores em Reais)

NOME DA FONTE PAGADORA	REND. RECEBIDOS DE PES. JURÍDICA	CONTR. PREVID. OFICIAL	IMPOSTO RETIDO NA FONTE	13º SALÁRIO	IRRF SOBRE 13º SALÁRIO
MINISTERIO DA DEFESA-EXERCITO BRASILEIRO - SEF-CPEX CNPJ/CPF: 00.394.452/0533-04	336,659.40	46,795.32	67,720.32	20,960.94	6,714.83
OMNI TAXI AEREO SA CNPJ/CPF: 03.670.763/0001-38	185,307.33	10,874.30	37,239.15	12,476.21	3,123.84
TOTAL	521,966.73	57,669.62	104,959.47	33,437.15	9,838.67

RENDIMENTOS TRIBUTÁVEIS RECEBIDOS DE PESSOA JURÍDICA PELOS DEPENDENTES

Sem Informações

RENDIMENTOS TRIBUTÁVEIS RECEBIDOS DE PESSOA FÍSICA E DO EXTERIOR PELO TITULAR

Sem Informações

RENDIMENTOS TRIBUTÁVEIS RECEBIDOS DE PESSOA FÍSICA E DO EXTERIOR PELOS DEPENDENTES

Sem Informações

RENDIMENTOS ISENTOS E NÃO TRIBUTÁVEIS

(Valores em Reais)

12. Rendimentos de cadernetas de poupança, letras hipotecárias, letras de crédito do agronegócio e imobiliário (LCA e LCI) e certificados de recebíveis do agronegócio e imobiliários (CRA e CRI)	5,483.15

Beneficiário	CPF	CNPJ da Fonte Pagadora	Nome da Fonte Pagadora	Valor
Titular	081.112.348-05	00.000.000/0001-91	BANCO DO BRASIL	5,483.15

TOTAL 5,483.15

RENDIMENTOS SUJEITOS À TRIBUTAÇÃO EXCLUSIVA / DEFINITIVA

(Valores em Reais)

01. 13º salário	33,437.15
TOTAL	33,437.15

RENDIMENTOS TRIBUTÁVEIS RECEBIDOS DE PESSOA JURÍDICA PELO TITULAR (IMPOSTO COM EXIGIBILIDADE SUSPENSA)

Sem Informações

RENDIMENTOS TRIBUTÁVEIS RECEBIDOS DE PESSOA JURÍDICA PELOS DEPENDENTES (IMPOSTO COM EXIGIBILIDADE SUSPENSA)

Sem Informações

RENDIMENTOS TRIBUTÁVEIS DE PESSOA JURÍDICA RECEBIDOS ACUMULADAMENTE PELO TITULAR

Sem Informações

RENDIMENTOS TRIBUTÁVEIS DE PESSOA JURÍDICA RECEBIDOS ACUMULADAMENTE PELOS DEPENDENTES

Sem Informações

IMPOSTO PAGO / RETIDO

(Valores em Reais)

01. Imposto complementar	0.00
02. Imposto pago no exterior pelo titular e pelos dependentes	0.00
Imposto devido com os rendimentos no exterior	0.00
Imposto devido sem os rendimentos no exterior	0.00
Diferença a ser considerada para cálculo do imposto (limite legal)	0.00
03. Imposto sobre a renda na fonte (Lei 11.033/2004)	0.00
04. Imposto retido na fonte do titular	104,959.47
05. Imposto retido na fonte dos dependentes	0.00
06. Carnê-Leão do titular	0.00
07. Carnê-Leão dos dependentes	0.00

DECLARAÇÃO EM PREENCHIMENTO

PAGAMENTOS EFETUADOS

(Valores em Reais)

CÓD.	NOME DO BENEFICIÁRIO	CPF/CNPJ DO BENEFICIÁRIO	VALOR PAGO	PARC. NÃO DEDUTÍVEL
Titular				
11	RITA DE CASSIA ANTUNES SPERANDEO	018.870.348-97	12,030.00	0.00
Descrição: TRATAMENTO DENTARIO.				
21	CLINICA MEDICA FERREIRA LEITE SC LTDA	03.487.304/0001-13	900.00	0.00
Descrição: CUNSULTA MEDICA CONSULTA E ACOMPANHAMENTO COM NUTROLOGO				
21	SUL AMERICA COMPANHIA DE SEGURO SAUDE	01.685.053/0001-56	1,819.72	0.00
Descrição: PLANO DE SAUDE - EMPRESARIAL				
21	X SLICE TOMOGRAFIA COMP. E DIAGNOSTICO ODONTOLOGICO LTDA ME	10.996.926/0001-32	500.00	0.00
Descrição: EXAME DE DOCUMENTAÇÃO ORTODONTICA E ESCANEAMENTO DIGITAL				
36	BRASILPREV PGBL	27.665.207/0001-31	19,686.68	0.00
Descrição: PREVIDENCIA PRIVADA				
Dependente: SILVIA REGINA FARIA DOS SANTOS LOTUFO				
21	PLATDERM	46.406.580/0001-12	300.00	0.00
Descrição: CONSULTA DERMATOLÓGICA				
Dependente: MARIA CLARA DOS SANTOS LOTUFO				
01	ESCOLA JARDIM DAS NACOES LTDA	72.307.481/0001-93	27,451.90	0.00
Descrição: ANUIDADE ESCOLAR				
01	BOUTIQUE MIL FOLHAS	05.497.663/0001-87	322.00	0.00
Descrição:				
10	LISETE DE SOUZA VIDOTTO	082.473.548-02	1,500.00	0.00
Descrição: CONSULTA MEDICA				
12	CLÁUDIA LÚCIA CALEGARI TEIXEIRA	051.517.888-84	4,050.00	0.00
Descrição: SESSOES DE PSICOTERAPIA				

DOAÇÕES EFETUADAS

Sem Informações

DECLARAÇÃO EM PREENCHIMENTO

DECLARAÇÃO DE BENS E DIREITOS

(Valores em Reais)

Atualizou o valor de algum bem imóvel e pagou o ganho de capital até 16/12/2024 de acordo com a Lei nº 14.973/2024?	Não

GRUPO	CÓDIGO	DISCRIMINAÇÃO	SITUAÇÃO EM 31/12/2023	SITUAÇÃO EM 31/12/2024
01	11	COMPRA DE UM APARTAMENTO FINANCIADO PELO BANCO DO BRASIL NO VALOR DE R$ 750.000,00. SENDO R$ 200.000,00 DA VENDA DO APARTAMENTO 1004 LOCALIZADO NO DECIMO PAVIMENTO DO CONDOMINIO DALLA ROSA E R$ 550.000,00 DO FINANCIAMENTO NO. 708.300.149 DO BANCO DO BRASIL.	1,100,000.00	1,100,000.00

105 - BRASIL

Inscrição Municipal (IPTU): 16004082084

Logradouro: RUA DR. EMILIO WINTHER
Nº: 597
Comp.: APARTAMENTO 53 - BLOCO 2
Bairro: JARDIM DAS NACOES
Município: TAUBATÉ
UF: SP CEP: 12030-000
Área Total: 176,8 m²
Data de Aquisição: 28/03/2014
Registrado no Cartório: Sim
Nome Cartório: CARTORIO DE REGISTRO DE IMOVEIS DE TAUBATE
Matrícula: 115475

GRUPO	CÓDIGO	DISCRIMINAÇÃO	SITUAÇÃO EM 31/12/2023	SITUAÇÃO EM 31/12/2024
01	11	01 APARTAMENTO ADQUIRIDO EM DACAO DE IMOVEL EM PAGAMENTO DE 1/2 DE UM TERRENO DESIGNADO AREA A , SITUADO NO BAIRRO VILA SAO JOSE, EM TAUBATE, MEDINDO 750,00 M2, DE FRENTE PARA A RUA PAULO SETUBAL. OBS.: IMÓVE VENDIDO EM 05/2024 VALOR R$ 220.000,00	250,000.00	0.00

105 - BRASIL

Inscrição Municipal (IPTU): 63007104019

Logradouro: RUA JOSE ARISTIDES MONTEIRO
Nº: 291
Comp.:
Bairro: VILA SAO JOSE
Município: TAUBATÉ
UF: SP CEP: 12070-560
Área Total: 64,0 m²
Data de Aquisição: 19/08/2022
Registrado no Cartório: Sim
Nome Cartório: CARTORIO DE REGISTRO DE IMOVEL DE TAUBATE
Matrícula: 163448

GRUPO	CÓDIGO	DISCRIMINAÇÃO	SITUAÇÃO EM 31/12/2023	SITUAÇÃO EM 31/12/2024
02	01	VEICULO TOYOTA RAV4 HBRIDO (GASOLINA/ELETRICO) 25L SX4WD ANO 2019 MODELO 2020	191,290.00	191,290.00

105 - BRASIL

RENAVAM: 01221615316

GRUPO	CÓDIGO	DISCRIMINAÇÃO	SITUAÇÃO EM 31/12/2023	SITUAÇÃO EM 31/12/2024
04	01	POUPANCA OURO BANCO DO BRASIL S/A, AG. 7083-1; CONTA NR. 68923-8	10,184.22	3.08

105 - BRASIL

Bem ou direito pertencente ao: Titular CPF: 081.112.348-05

CNPJ: 00.000.000/0001-91

Banco: 001 Agência: 7083 Conta: 68923-8

DECLARAÇÃO EM PREENCHIMENTO

DECLARAÇÃO DE BENS E DIREITOS

(Valores em Reais)

Atualizou o valor de algum bem imóvel e pagou o ganho de capital até 16/12/2024 de acordo com a Lei nº 14.973/2024?	Não

GRUPO	CÓDIGO	DISCRIMINAÇÃO	SITUAÇÃO EM 31/12/2023	SITUAÇÃO EM 31/12/2024
04	01	CADERNETA DE POUPANCA - POUPEX NR. 68923-8 105 - BRASIL Bem ou direito pertencente ao: Titular CPF: 081.112.348-05 CNPJ: 00.000.000/0001-91 Banco: 001 Agência: 7083 Conta: 68923-8	11,325.27	2,675.08
06	01	CONTA CORRENTE BANCO DO BRASIL 105 - BRASIL Bem ou direito pertencente ao: Titular CPF: 081.112.348-05 CNPJ: 00.000.000/0001-91 Banco: 001 Agência: 7083 Conta: 68923-8 Conta Pagamento? Não	5,310.22	15,443.68
06	01	CONTA CORRENTE BANCO DO BRASIL 105 - BRASIL Bem ou direito pertencente ao: Titular CPF: 081.112.348-05 CNPJ: 00.000.000/0001-91 Banco: 001 Agência: 7083 Conta: 13456-2 Conta Pagamento? Não	16,421.16	3,078.05
TOTAL			1,584,530.87	1,312,489.89

DÍVIDAS E ÔNUS REAIS

Sem Informações

DOAÇÕES A PARTIDOS POLÍTICOS E CANDIDATOS A CARGOS ELETIVOS

Sem Informações

DECLARAÇÃO EM PREENCHIMENTO

DEMONSTRATIVO DE ATIVIDADE RURAL - BRASIL

DADOS E IDENTIFICAÇÃO DO IMÓVEL EXPLORADO - BRASIL

Sem Informações

RECEITAS E DESPESAS - BRASIL

Sem Informações

APURAÇÃO DO RESULTADO - BRASIL

Sem Informações

MOVIMENTAÇÃO DO REBANHO - BRASIL

Sem Informações

BENS DA ATIVIDADE RURAL - BRASIL

Sem Informações

DÍVIDAS VINCULADAS À ATIVIDADE RURAL - BRASIL

Sem Informações

DECLARAÇÃO EM PREENCHIMENTO

DEMONSTRATIVO DE ATIVIDADE RURAL - EXTERIOR

DADOS E IDENTIFICAÇÃO DO IMÓVEL EXPLORADO - EXTERIOR

Sem Informações

RECEITAS E DESPESAS - EXTERIOR

Sem Informações

APURAÇÃO DO RESULTADO - EXTERIOR

Sem Informações

MOVIMENTAÇÃO DO REBANHO - EXTERIOR

Sem Informações

BENS DA ATIVIDADE RURAL - EXTERIOR

Sem Informações

DÍVIDAS VINCULADAS À ATIVIDADE RURAL - EXTERIOR

Sem Informações

DEMONSTRATIVO DA APURAÇÃO DOS GANHOS DE CAPITAL

Sem Informações

DECLARAÇÃO EM PREENCHIMENTO

RENDA VARIÁVEL - OPERAÇÕES COMUNS/DAYTRADE - TITULAR

GANHOS LÍQUIDOS OU PERDAS - JAN

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - FEV

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - MAR

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - ABR

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - MAI

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - JUN

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - JUL

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - AGO

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - SET

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - OUT

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - NOV

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - DEZ

Sem Informações

RENDA VARIÁVEL - OPERAÇÕES COMUNS/DAYTRADE - DEPENDENTES

Sem Informações

FUNDOS DE INVESTIMENTO IMOBILIÁRIO OU NAS CADEIAS PRODUTIVAS AGROINDUSTRIAIS - TITULAR

Sem Informações

FUNDOS DE INVESTIMENTO IMOBILIÁRIO OU NAS CADEIAS PRODUTIVAS AGROINDUSTRIAIS - DEPENDENTES

Sem Informações

DOAÇÕES DIRETAMENTE NA DECLARAÇÃO - ECA

Sem Informações

DOAÇÕES DIRETAMENTE NA DECLARAÇÃO - IDOSO

Sem Informações

DECLARAÇÃO EM PREENCHIMENTO

NOME: LUIZ HENRIQUE GARCEZ LOTUFO
CPF: 081.112.348-05 **IMPOSTO SOBRE A RENDA - PESSOA FÍSICA**
DECLARAÇÃO DE AJUSTE ANUAL **EXERCÍCIO 2025** **ANO-CALENDÁRIO 2024**

RESUMO — TRIBUTAÇÃO UTILIZANDO AS DEDUÇÕES LEGAIS

RENDIMENTOS TRIBUTÁVEIS

Recebidos de Pessoa Jurídica pelo titular	521,966.73
Recebidos de Pessoa Jurídica pelos dependentes	0.00
Recebidos de Pessoa Física/Exterior pelo titular	0.00
Recebidos de Pessoa Física/Exterior pelos dependentes	0.00
Recebidos acumuladamente pelo titular	0.00
Recebidos acumuladamente pelos dependentes	0.00
Resultado tributável da Atividade Rural	0.00
TOTAL	521,966.73

DEDUÇÕES

Contribuições às previdências oficial e complementar fechada de que trata o § 15 do art. 40 da CF/1988 (até o limite do patrocinador)	57,669.62
Contribuição à previdência oficial (Rendimentos recebidos acumuladamente)	0.00
Contribuição à prev. complementar, inclusive o valor para as fechadas de que trata o § 15 do art. 40 da CF/1988 que exceder o limite do patrocinador	19,686.68
Dependentes	4,550.16
Despesas com instrução	3,561.50
Despesas médicas	21,099.72
Pensão alimentícia judicial	0.00
Pensão alimentícia por escritura pública	0.00
Pensão alimentícia judicial (Rendimentos recebidos acumuladamente)	0.00
Livro caixa	0.00
TOTAL	106,567.68

IMPOSTO DEVIDO

Base de cálculo do imposto	415,399.05
Imposto devido	103,493.75
Dedução de incentivo	0.00
Imposto devido I	103,493.75
Imposto devido RRA	0.00
Aliquota efetiva (%)	19.82
Total do imposto devido	103,493.75

IMPOSTO A RESTITUIR	1,465.72
SALDO DE IMPOSTO A PAGAR	0.00

PARCELAMENTO

Valor da quota	0.00
Número de Quotas	0

IMPOSTO PAGO

Imposto retido na fonte do titular	104,959.47
Imp. retido na fonte dos dependentes	0.00
Carnê-Leão do titular	0.00
Carnê-Leão dos dependentes	0.00
Imposto complementar	0.00
Imposto pago no exterior	0.00
Imposto retido na fonte (Lei nº 11.033/2004)	0.00
Imposto retido RRA	0.00
Total do imposto pago	104,959.47

INFORMAÇÕES BANCÁRIAS

Tipo de Conta	Conta Poupança
Banco	001
Agência (sem DV)	7083
Conta para crédito	68923 8

DECLARAÇÃO EM PREENCHIMENTO

EVOLUÇÃO PATRIMONIAL

Bens e direitos em 31/12/2023	1,584,530.87
Bens e direitos em 31/12/2024	1,312,489.89
Dívidas e ônus reais em 31/12/2023	0.00
Dívidas e ônus reais em 31/12/2024	0.00

OUTRAS INFORMAÇÕES

Rendimentos isentos e não tributáveis	5,483.15
Rendimentos sujeitos à tributação exclusiva/definitiva	33,437.15
Rendimentos tributáveis - imposto com exigibilidade suspensa	0.00
Depósitos judiciais do imposto	0.00
Imposto pago sobre Ganhos de Capital	0.00
Imposto pago Ganhos de Capital Moeda Estrangeira - Bens, direitos e Aplicações Financeiras	0.00
Total do imposto retido na fonte (Lei nº11.033/2004), conforme dados informados pelo contribuinte	0.00
Imposto pago sobre Renda Variável	0.00
Doações a Partidos Políticos e Candidatos a Cargos Eletivos	0.00
Imposto a pagar sobre o Ganho de Capital - Moeda Estrangeira em Espécie	0.00
Imposto diferido dos Ganhos de Capital	0.00
Imposto devido sobre Ganhos de Capital	0.00
Imposto devido sobre ganhos líquidos em Renda Variável	0.00
Imposto devido sobre Ganhos de Capital Moeda Estrangeira - Bens, direitos e aplic. financeiras	0.00

DECLARAÇÃO EM PREENCHIMENTO

Salary Payment Statement: 06/25 Seg: 1470

Monthly Calculation

Company: OMNI TAXI AEREO S.A CNPJ: 03.670.763/0001-38

Employee: LUIZ HENRIQUE GARCEZ LOTUFO CPF: 081.112.348-05 Registration: 2519 CBO: 341110

Date of hiring: 10/15/2020 Position: Captain Pilot (Brazilian Occupational Classification)

Date of payment: 07/04/2025

Bank: 1 - Banco do Brasil Branch: 7083 Account: 68923-8

	Description	Reference	Deductions	Earnings
+	Base Salary	176.00		R$ 13.517,44
+	Guaranteed Flight Hours Captain GP	50.00		R$ 5.578,00
+	Hazard Pay 30%	176.00		R$ 4.055,23
+	Organic Compensation	20.00		R$ 3.279,41
+	Equipment Allowance GP	0.00		R$ 2.879,59
+	ICAO (International Civil Aviation Organization) Allowance	0.00		R$ 458,61
-	IRRF (Federal Income Tax Withheld at Source)	27.50	(R$ 7.015,85)	
-	INSS (National Social Security Institute)	14.00	(R$ 951,62)	
-	Co-payment - Bradesco	311.26	(R$ 311,26)	
-	Meal Allowance	1.00	(R$ 130,69)	
-	Improper Payment Deduction	0.00	(R$ 4,61)	
	Total		(R$ 8.414,03)	R$ 29.768,28
	Net Amount Payable:			R$ 21.354,25

Number of Dependents for Income Tax: 0 Number of Dependents for Family Allowance: 0 Base salary: R$ 13.517,44

INSS Calculation Base: R$ 8.157,41 Income Tax Calculation Base: R$ 29.768,28 FGTS Calculation Base: R$ 29.768,28

Monthly FGTS (Length-of-Service Guarantee Fund): R$ 2.381,46

I, André Vinícius Inacio Penna Mello, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: April 28, 2026.

Demonstrativo de Pagamento de Salário: 06/25 **Seg: 1470**

Cálculo Mensal

Empresa: OMNI TAXI AÉREO S.A **CNPJ: 03.670.763/0001-38**

Colaborador: LUIZ HENRIQUE GARCEZ LOTUFO **CPF: 081.112.348-05** **Matrícula: 2519** **CBO: 341110**

Data de admissão: 15/10/2020 **Cargo: Piloto Comandante**

Data de pagamento: 04/07/2025

Banco: 1 - Banco do Brasil **Agência: 7083** **Conta: 68923-8**

	Descrição	Referência	Descontos	Proventos
+	Salario Base	176.00		R$ 13.517,44
+	H.Voo Garantidas Cmte GP	50.00		R$ 5.578,00
+	Periculosidade 30%	176.00		R$ 4.055,23
+	Compensacao Organica	20.00		R$ 3.279,41
+	Gratifi. Equipamento GP	0.00		R$ 2.879,59
+	Gratificacao ICAO	0.00		R$ 458,61
-	IRRF	27.50	(R$ 7.015,85)	
-	INSS	14.00	(R$ 951,62)	
-	Coparticipação - Bradesco	311.26	(R$ 311,26)	
-	Alimentaçao	1.00	(R$ 130,69)	
-	Desc.Pagamento Indevido	0.00	(R$ 4,61)	
	Total		(R$ 8.414,03)	R$ 29.768,28
	Valor líquido a receber:			R$ 21.354,25

Nº de dependentes para imposto de Renda: 0 **Nº de dependentes para Salário Família: 0** **Salário base: R$ 13.517,44**

Base de cálculo INSS: R$ 8.157,41 **Base de cálculo IR: R$ 29.768,28** **Base de cálculo FGTS: R$ 29.768,28**

FGTS do mês: R$ 2.381,46

Salary Payment Statement: 07/25
Monthly Calculation

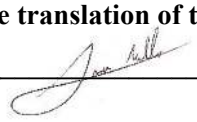
Seg: 1471

Company: OMNI TAXI AEREO S.A
CNPJ: 03.670.763/0001-38
Employee: LUIZ HENRIQUE GARCEZ LOTUFO
CPF: 081.112.348-05
Registration: 2519
CBO: 341110
(Brazilian Occupational Classification)
Date of hiring: 10/15/2020
Position: Captain Pilot
Date of payment: 08/05/2025
Bank: 1 - Banco do Brasil
Branch: 7083
Account: 68923-8

	Description	Reference	Deductions	Earnings
+	Base Salary	176.00		R$ 13.517,44
+	Guaranteed Flight Hours Captain GP	49.35		R$ 5.586,83
+	Hazard Pay 30%	176.00		R$ 4.055,23
+	Guyana Allowance	0.00		R$ 3.379,36
+	Organic Compensation	20.00		R$ 3.279,41
+	Equipment Allowance GP	0.00		R$ 2.879,59
+	D/F Flight Hours Captain Pilot GP	8.17		R$ 924,09
+	ICAO (International Civil Aviation Organization) Allowance	0.00		R$ 458,61
-	IRRF (Federal Income Tax Withheld at Source)	27.50	(R$ 8.201,73)	
-	INSS (National Social Security Institute)	14.00	(R$ 951,62)	
-	Co-payment - Bradesco	188.13	(R$ 188,13)	
-	Meal Allowance	1.00	(R$ 130,69)	
	Total		(R$ 9.472,17)	R$ 34.080,56
	Net Amount Payable:			R$ 24.608,39

Number of Dependents for Income Tax: 0
Number of Dependents for Family Allowance: 0
Base salary: R$ 13.517,44
INSS Calculation Base: R$ 8.157,41
Income Tax Calculation Base: R$ 34.080,56
FGTS Calculation Base: R$ 34.080,56
Monthly FGTS (Length-of-Service Guarantee Fund): R$ 2.726,44

I, André Vinícius Inacio Penna Mello, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: April 28, 2026.

Demonstrativo de Pagamento de Salário: 07/25 **Seg: 1471**

Cálculo Mensal

Empresa: OMNI TAXI AÉREO S.A **CNPJ: 03.670.763/0001-38**

Colaborador: LUIZ HENRIQUE GARCEZ LOTUFO **CPF: 081.112.348-05** **Matrícula: 2519** **CBO: 341110**

Data de admissão: 15/10/2020 **Cargo: Piloto Comandante**

Data de pagamento: 05/08/2025

Banco: 1 - Banco do Brasil **Agência: 7083** **Conta: 68923-8**

	Descrição	Referência	Descontos	Proventos
+	Salario Base	176.00		R$ 13.517,44
+	H.Voo P.Comandante GP	49.35		R$ 5.586,83
+	Periculosidade 30%	176.00		R$ 4.055,23
+	Gratificação Guyana	0.00		R$ 3.379,36
+	Compensacao Organica	20.00		R$ 3.279,41
+	Gratifi. Equipamento GP	0.00		R$ 2.879,59
+	H.Vôo D/F P. Cmdt. GP	8.17		R$ 924,09
+	Gratificacao ICAO	0.00		R$ 458,61
-	IRRF	27.50	(R$ 8.201,73)	
-	INSS	14.00	(R$ 951,62)	
-	Coparticipação - Bradesco	188.13	(R$ 188,13)	
-	Alimentaçao	1.00	(R$ 130,69)	
	Total		(R$ 9.472,17)	R$ 34.080,56
	Valor líquido a receber:			R$ 24.608,39

Nº de dependentes para imposto de Renda: 0 **Nº de dependentes para Salário Família: 0** **Salário base: R$ 13.517,44**

Base de cálculo INSS: R$ 8.157,41 **Base de cálculo IR: R$ 34.080,56** **Base de cálculo FGTS: R$ 34.080,56**

FGTS do mês: R$ 2.726,44

Salary Payment Statement: 08/25
Monthly Calculation

Seg: 1472

Company: OMNI TAXI AEREO S.A
CNPJ: 03.670.763/0001-38
Employee: LUIZ HENRIQUE GARCEZ LOTUFO
CPF: 081.112.348-05
Registration: 2519
CBO: 341110
(Brazilian Occupational Classification)
Date of hiring: 10/15/2020
Position: Captain Pilot
Date of payment: 09/05/2025
Bank: 1 - Banco do Brasil
Branch: 7083
Account: 68923-8

	Description	Reference	Deductions	Earnings
+	Base Salary	176.00		R$ 13.517,44
+	Guaranteed Flight Hours Captain GP	51.44		R$ 5.829,08
+	Hazard Pay 30%	176.00		R$ 4.055,23
+	Guyana Allowance	0.00		R$ 3.379,36
+	Organic Compensation	20.00		R$ 3.279,41
+	Equipment Allowance GP	0.00		R$ 2.879,59
+	Night Flight Hours Captain Pilot GP	5.12		R$ 580,11
+	ICAO (International Civil Aviation Organization) Allowance	0.00		R$ 458,61
+	D/F Flight Hours Captain Pilot GP	3.09		R$ 351,41
-	IRRF (Federal Income Tax Withheld at Source)	27.50	(R$ 8.270,39)	
-	INSS (National Social Security Institute)	14.00	(R$ 951,62)	
-	Co-payment - Bradesco	173.88	(R$ 173,88)	
-	Meal Allowance	1.00	(R$ 130,69)	
	Total		(R$ 9.526,58)	R$ 34.330,24
	Net Amount Payable:			R$ 24.803,66

Number of Dependents for Income Tax: 0
Number of Dependents for Family Allowance: 0
Base salary: R$ 13.517,44
INSS Calculation Base: R$ 8.157,41
Income Tax Calculation Base: R$ 34.330,24
FGTS Calculation Base: R$ 34.330,24
Monthly FGTS (Length-of-Service Guarantee Fund): R$ 2.746,41

I, André Vinícius Inacio Penna Mello, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: April 28, 2026.

Demonstrativo de Pagamento de Salário: 08/25 **Seg: 1472**

Cálculo Mensal

Empresa: OMNI TAXI AÉREO S.A **CNPJ: 03.670.763/0001-38**

Colaborador: LUIZ HENRIQUE GARCEZ LOTUFO **CPF: 081.112.348-05** **Matrícula: 2519** **CBO: 341110**

Data de admissão: 15/10/2020 **Cargo: Piloto Comandante**

Data de pagamento: 05/09/2025

Banco: 1 - Banco do Brasil **Agência: 7083** **Conta: 68923-8**

	Descrição	Referência	Descontos	Proventos
+	Salario Base	176.00		R$ 13.517,44
+	H.Voo P.Comandante GP	51.44		R$ 5.829,08
+	Periculosidade 30%	176.00		R$ 4.055,23
+	Gratificação Guyana	0.00		R$ 3.379,36
+	Compensacao Organica	20.00		R$ 3.279,41
+	Gratifi. Equipamento GP	0.00		R$ 2.879,59
+	H.Vôo Noturno P. Cmdt. GP	5.12		R$ 580,11
+	Gratificacao ICAO	0.00		R$ 458,61
+	H.Vôo D/F P. Cmdt. GP	3.09		R$ 351,41
-	IRRF	27.50	(R$ 8.270,39)	
-	INSS	14.00	(R$ 951,62)	
-	Coparticipação - Bradesco	173.88	(R$ 173,88)	
-	Alimentaçao	1.00	(R$ 130,69)	
	Total		(R$ 9.526,58)	R$ 34.330,24
	Valor líquido a receber:			R$ 24.803,66

Nº de dependentes para imposto de Renda: 0 **Nº de dependentes para Salário Família: 0** **Salário base: R$ 13.517,44**

Base de cálculo INSS: R$ 8.157,41 **Base de cálculo IR: R$ 34.330,24** **Base de cálculo FGTS: R$ 34.330,24**

FGTS do mês: R$ 2.746,41

'GLASSDOOR'

Let hiring companies find you: upload your resume

Followed companies

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HS L...



Andrade ... 2,4★

Search companies

Job searches

editorial assistant

0 openings

View all job activity

Helicopter Pilot Salaries

Salaries Interviews

Helicopter Pilot Salaries (Brazil)

Experience

More than 15 years

Base Salary

R$ 15,000 - R$ 20,000/month

R$ 15,000/month Average base salary

About our data

Very high confidence Last updated: Aug 9, 2023

8 salaries submitted

The "Most Likely Range" represents values between the 25th and 75th percentiles of all available compensation data for the position. Glassdoor salaries are generated by our proprietary machine learning model, which uses salaries collected from our users and the most recent government data to make salary predictions.

How does the **average base salary range** of **R$ 15,000 - R$ 20,000/month seem to you?**

Low

Accurate

High

Your input helps Glassdoor refine our salary estimates over time.

Trending Companies for Helicopter Pilots — Brazil ⓘ

Search by company or location

56 Trending Companies for … Sort by **popular**…

Brazilian Army 4.1

2 open position(s)

R$ 4,000 - R$ 15,000/month Total pay

R$ 15,000 Average

Helicopter Pilot

Banco Bradesco 4

209 open position(s)

R$ 5,000- R$ 8,000/month Total pay

R$ 7,000 Average

Helicopter Pilot

Brazilian Navy 3.8

Create job alert

R$ 11,000 - R$ 19,000/month Total pay

R$ 15,000 Average

Helicopter Pilot

Brazilian Air Force 4

Create job alert

R$ 1,000 - R$ 11,000 /month Total pay

R$ 6 mil Average

Helicopter Pilot

Banco Bradesco 4

209 open position(s)

R$ 8,000 - R$ 8,000/month Total pay

R$ 8 mil Average

Helicopter Pilot

1 2 3 4 5 ... 12

Showing 1 - 5 of 56 results

Recent salaries shared by Helicopter Pilot professionals

Location

All years of exp...

37 salaries

Sort by **most re...**

Job Title | Years of experience Location Submission Date	Total pay Base • Variable compensatio
Helicopter Pilot | **More than 15 years** Belo Horizonte, MG Submission date: Nov. 24, 2025	**R$ 175,000/year** R$ 175,000 • R$ 0
More than Helicopter... | **15 years** Belo Horizonte, MG Submission date: Oct. 21 2025	**R$ 166,000 - R$ 194,000/year**
Helicopter Pilot | **1 to 3 years** Salvador, BA	**R$ 235,000/year** R$ 235,000 • R$ 0

Submission date: 18 de jul. de

Helicopter… | **1 to 3 years**
São Pedro da Aldeia
Submission date: Jun. 26 2025
R$ 122,000 - R$ 142,000/year

Helicopter… | **10 to 14 years**
Rio de Janeiro
Submission date: Mar. 19 2025
R$ 167,000 - R$ 194,000/year

Share your salary confidentially and help the community.
Add salary

Helicopter… | **10 to 14 years**
Taubaté
Submission date: Mar. 13 2025
R$ 167,000 - R$ 193,000/year

Helicopter… | **7 to 9 years**
Campo Grande, MS
Submission date: Dec 28 2024
R$ 119,000 - R$ 138,000/year

Helicopter… | **4 to 6 years**
Americana
Submission date: Dec. 15 2024
R$ 777,000 - R$ 905,000/year

Helicopter… | **More than 15 years**
Campo Grande, MS
Submission date: Nov. 20 2024
R$ 166,000 - R$ 194,000/year

Helicopter… | **More than 15 years**
Ituporanga
Submission date: Oct. 24 2024
R$ 333,000 - R$ 385,000/year

1 2 3 4

Showing 1 to 10 of 37

Frequently asked questions about Helicopter Pilot salaries

What is the salary for the Helicopter Pilot position (Brazil)?

What is the highest salary for the Helicopter Pilot position (Brazil)?

What is the lowest salary for the Helicopter Pilot position (Brazil)?

Salaries > Helicopter Pilot > Brazil

Download the app:

Brazil

Search by: Companies Jobs Locations

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I, André Vinícius Inacio Penna Mello, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

_____ **Date: June 3, 2026.**

'GLASSDOOR'

Permita que empresas contratantes encontrem você: carregue seu currículo

Salários de Piloto De Helicoptero

Salários Entrevistas

Salários de Piloto De Helicoptero (Brasil)

Experiência

Mais de 15 anos

Salário base

R$ 15 mil - R$ 20 mil/mês

R$ 15 mil/mês Salário base médio

Sobre nossos dados

Confiança muito alta Última atualização: 9 de ago. de 2023

8 salários enviados

A "Faixa mais provável" representa valores entre o 25º e o 75º percentis de todos os dados de remuneração disponíveis para o cargo. Os salários do Glassdoor são gerados por nosso modelo exclusivo de aprendizado de máquina, que usa salários coletados de nossos usuários e dos dados governamentais mais recentes para fazer previsões salariais.

Como lhe parece a **faixa de salário base médio** de **R$ 15 mil-R$ 20 mil/mês?**

Baixa

Precisa

Empresas seguidas

Fique por dentro de todas as oportunidades e dicas internas seguindo as empresas de seus sonhos.



HS L...



Andrade ... 2,4 ★

Buscar empresas

Buscas de vagas

editorial assistant

0 vagas

Ver todas as atividades de vagas

Alta

Sua contribuição ajuda o Glassdoor a refinar nossas estimativas de salários com o tempo.

Empresas em alta para Piloto De Helicoptero — Brasil

Busque por empresa ou localização

56 Empresas em alta para vagas de … Ordenar por **popular**…

Exército Brasileiro 4.1

2 vaga(s) aberta(s)

R$ 4 mil - R$ 15 mil/mês Pagamento total

R$ 15 mil Médio

Piloto De Helicóptero

Banco Bradesco 4

209 vaga(s) aberta(s)

R$ 5 mil - R$ 8 mil/mês Pagamento total

R$ 7 mil Médio

Piloto De Helicóptero

Marinha do Brasil 3.8

Criar alerta de vaga

R$ 11 mil - R$ 19 mil/mês Pagamento total

R$ 15 mil Médio

Piloto De Helicóptero

Força Aérea Brasileira 4

Criar alerta de vaga

R$ 1 mil - R$ 11 mil/mês Pagamento total

R$ 6 mil Médio

Piloto De Helicóptero

Banco Bradesco 4

209 vaga(s) aberta(s)

R$ 8 mil - R$ 8 mil/mês Pagamento total

R$ 8 mil Médio

Piloto De Helicóptero

< 1 2 3 4 5 ... 12 >

Mostrando 1 - 5 de 56 resultados

Salários recentes compartilhados por profissionais do cargo de Piloto De Helicóptero

Localização

Todos os anos de exp...

37 salários

Ordenar por **mais re**...

Cargo | Anos de experiência	Localização	Data de envio	Pagamento total	Base • Remuneração variável
Piloto De Helicóptero | **Mais de 15 anos**	Belo Horizonte, MG	Data de envio: 24 de nov. de 2025	**R$ 175 mil/ano**	R$ 175 mil • R$ 0
Piloto De H... | **Mais de 15 anos**	Belo Horizonte, MG	Data de envio: 21 de out. de 2025	**R$ 166 mil - R$ 194 mil/ano**	
Piloto De Helicóptero | **1 a 3 anos**	Salvador, BA		**R$ 235 mil/ano**	R$ 235 mil • R$ 0

Data de envio: 18 de jul. de 2025

Piloto De Heli… | **1 a 3 anos**
São Pedro da Aldeia
Data de envio: 26 de jun. de 2025
R$ 122 mil - R$ 142 mil/ano

Piloto De Hel… | **10 a 14 anos**
Rio de Janeiro
Data de envio: 19 de mar. de 2025
R$ 167 mil - R$ 194 mil/ano

Compartilhe seu salário em sigilo e ajude a comunidade.
Adicionar salário

Piloto De Hel… | **10 a 14 anos**
Taubaté
Data de envio: 13 de mar. de 2025
R$ 167 mil - R$ 193 mil/ano

Piloto De Heli… | **7 a 9 anos**
Campo Grande, MS
Data de envio: 28 de dez. de 2024
R$ 119 mil - R$ 138 mil/ano

Piloto De Heli… | **4 a 6 anos**
Americana
Data de envio: 15 de dez. de 2024
R$ 777 mil - R$ 905 mil/ano

Piloto De H… | **Mais de 15 anos**
Campo Grande, MS
Data de envio: 20 de nov. de 2024
R$ 166 mil - R$ 194 mil/ano

Piloto De H… | **Mais de 15 anos**
Ituporanga
Data de envio: 24 de out. de 2024
R$ 333 mil - R$ 385 mil/ano

1 2 3 4

Mostrando 1 a 10 de 37

Perguntas frequentes sobre salários do cargo de Piloto De Helicóptero

Qual é o salário do cargo de Piloto De Helicóptero (Brasil)?

Qual é o maior salário do cargo de Piloto De Helicóptero (Brasil)?

Qual é o menor salário do cargo de Piloto De Helicóptero (Brasil)?

Salários > Piloto De Helicoptero > Brasil

Baixe o aplicativo:

Brasil

Busque por: Empresas Vagas Localizações

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BB AMERICAS
Bank

1221 Brickell Avenue • Suite 2200
Miami, FL 33131

Return Service Requested

Account Number	XXXXXX1807
Statement Date	02/27/2026
Statement Thru Date	03/01/2026
Check/Items Enclosed	0
Page	1

00037457 FBBA1D02282615565300 01 000000000 0000000 002

LUIZ HENRIQUE GARCEZ LOTUFO
1221 BRICKELL AVE STE 2200
MIAMI FL 33131-3226

Customer Service Information

Customer Service - USA	1-855-377-2555
Customer Service - International	1-305-350-1100

00037457 0085544 0001-0001

IMPORTANT MESSAGE(S)

Go Green! Go Paperless. Log into BB Americas Online Banking and enroll in e-Statements. With e-Statements you can view, download or print an electronic version of your statement at any time.

E-MONEY MARKET

Account Number: XXXXXX1807

Account Owner(s): LUIZ HENRIQUE GARCEZ LOTUFO

Balance Summary

Beginning Balance as of 02/01/2026	**$47,665.13**
+ Deposits and Credits (1)	$59.88
- Withdrawals and Debits (0)	$0.00
Ending Balance as of 02/28/2026	**$47,725.01**
Service Charges for Period	$0.00
Minimum Balance for Period	$47,665.00

Earnings Summary

Interest Paid for Period Ending 02/28/2026	$59.88
Interest Paid Year to Date	$120.66
Annual Percentage Yield Earned (APYE)	1.65%
Average Balance for APYE	$47,665.13
Number of Days for APYE	28

DEPOSITS AND OTHER CREDITS

Date	Description	Deposits
Feb 27	INTEREST PAID	59.88

DAILY BALANCE SUMMARY

Date	Balance
Feb 27	47,725.01

In Case Of Error Or Questions About Your Electronic Transfer

Telephone us at the number listed on the reverse side of this statement or write us, ATTENTION: OPERATIONS, at the address listed on the reverse side of this statement as soon as you can, if you think your statement or receipt is wrong. We must hear from you no later than 60 days after we sent you the FIRST statement on which the error or problem appeared.

(1) Tell us your name and account number.
(2) Describe the error or transfer you are unsure about, and explain as clearly as you can why you believe there is an error or why you need more information.
(3) Tell us the dollar amount of the suspected error.

For personal checking and savings account, we will investigate your complaint and will correct any error promptly. If we take more than 10 business days (20 business days if the transfer involved a new account), to do this, we will credit your account for the amount you think is in error, so that you will have use of the money during the time it will take to complete our investigation.

00037457 0085545 0000-0001 FBBA1D02282615565300 01 L 0000000

Exhibit D – Personal Documents for Petitioner

Seal No. 1138602CE000000022295425P
Check the authenticity of the Digital Seal at
https://selodigital.tjsp.jus.br/

FEDERATIVE REPUBLIC OF BRAZIL
CIVIL REGISTRY OF NATURAL PERSONS

BIRTH CERTIFICATE

Name
LUIZ HENRIQUE GARCEZ LOTUFO

CPF
081.112.348-05

Registration
113860 01 55 1964 1 00104 560 0050033 17

Date of birth	Day	Month	Year
October fifth, nineteen sixty-four	05	10	1964

Time of birth	City of birth	State
03:15 AM	Taubaté	São Paulo

Place of birth	City of birth	State	Sex
Santa Isabel Maternity Hospital, of this first subdistrict	Taubaté	São Paulo	Male

Parent's name	City of birth	State
LUIZ DE GONZAGA LOTUFO	Taubaté	São Paulo

Respective grandparents
Domingos Lotufo; Benedicta Hyppolita Moreira de Castilho

Parent's name	City of birth	State
OLARPHA GARCEZ LOTUFO	Taubaté	São Paulo

Respective grandparents
Thiago Garcez; Laurinda Lotufo

Date of registration	Live birth registration number
October seventeenth, nineteen sixty-four	No record

Notes/Annotations

MARRIAGE NOTE: It is further CERTIFIED that in the appropriate column of this record there is the following NOTE: Married in a religious ceremony with civil effect on 11/26/2005 to Silvia Regina Faria dos Santos, recorded today in this registry office under No. 1247, on page 48, book B Aux 5. Taubaté, 11/29/2005 by clerk Rosangêla dos Santos Cruz. Date of annotation: 12/06/2022. CPF ANNOTATION: The registered person is enrolled in the CPF under No. 081.112.348-05, according to the database of the Federal Revenue Service of Brazil. Taubaté, 10/10/2025 by clerk Bianca Cristine da S. Souza. Date of annotation: 10/10/2025. Nothing further was required for me to certify.

Office name
Civil Registry, 1st Subdistrict

Registrar
Registrar - MARIA PAULA BITTANTE OLIVEIRA BARRICHELLO

City/State
Taubaté/São Paulo

Address
Rua Sacramento, 60, Centro. ZIP Code 12010-010

The content of this certificate is true. I certify.
Taubaté, October 10, 2025.

----//signature//----

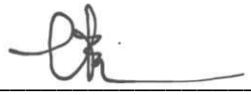
Bianca Cristine da S. Souza
Clerk

FEES: R$ 73.81, ISS: R$ 3.69, STATE TREASURY: R$ 14.76, TOTAL: R$ 92.26

CIVIL REGISTRY 1ST SUBDISTRICT OF TAUBATÉ - SP

IA 013967103

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



_____ Date: November 3, 2025.

Selo nº 1138602CE000000022295425P
Consulte a Autenticidade do Selo Digital em
https://selodigital.tjsp.jus.br/

REPÚBLICA FEDERATIVA DO BRASIL
REGISTRO CIVIL DAS PESSOAS NATURAIS

CERTIDÃO DE NASCIMENTO

Nome

LUIZ HENRIQUE GARCEZ LOTUFO

Número do CPF

081.112.348-05

Matrícula

113860 01 55 1964 1 00104 560 0050033 17

Data de nascimento	Dia	Mês	Ano
Cinco de outubro de mil novecentos e sessenta e quatro	05	10	1964

Horário de nascimento	Município de naturalidade	UF
03h15min	Taubaté	SP

Local nascimento	Município de nascimento	UF	Sexo
Maternidade Santa Isabel, deste primeiro sub distrito	Taubaté	SP	Masculino

Nome do(a) Genitor(a)	Município de nascimento	UF
LUIZ DE GONZAGA LOTUFO	Taubaté	SP

Avô(ó) respectivo(s)

Domingos Lotufo; Benedicta Hyppolita Moreira de Castilho

Nome do(a) Genitor(a)	Município de nascimento	UF
OLARPHA GARCEZ LOTUFO	Taubaté	SP

Avô(ó) respectivo(s)

Thiago Garcez; Laurinda Lotufo

Data de registro	DNV
Dezessete de outubro de mil novecentos e sessenta e quatro	Não informado

Anotações/Averbações

ANOTAÇÃO DE CASAMENTO: CERTIFICA, mais que na coluna própria do presente assento consta a seguinte ANOTAÇÃO: Casou-se no religioso com efeito civil aos 26.11.2005 com Silvia Regina Faria dos Santos, registrado hoje neste cartório sob nº 1247 às fls 48 livro B Aux 5. Tté. 29.11.2005 A esc Rosangêla dos Santos Cruz. Data da averbação: 06/12/2022. AVERBAÇÃO DE CPF: O (a) registrado (a) está inscrito (a) no CPF sob nº 081.112.348-05, conforme base de dados da Receita Federal do Brasil. Tté, 10/10/2025. A esc. Bianca Cristine da S. Souza Data da averbação: 10/10/2025. Nada mais me cumpria certificar.

Nome do ofício
Registro Civil 1º sub distrito

Oficial registrador
OFICIAL - MARIA PAULA BITTANTE OLIVEIRA BARRICHELLO

Município/UF
Taubaté/SP

Endereço
Rua Sacramento, 60, Centro. Cep 12010-010

O conteúdo da certidão é verdadeiro. Dou fé.
Taubaté, 10 de outubro de 2025.

Bianca Cristine da S. Souza
Escrevente

EMOLUMENTOS: R$ 73,81, ISS: R$ 3,69, SEC FAZENDA: R$ 14,76, TOTAL: R$ 92,26

REGISTRO CIVIL 1º SUB DISTRITO DE TAUBATÉ-SP

IA 013967103

Indústria Gráfica Brasileira Ltda

FW397671

Assinatura do titular / Signature du titulaire
Bearer's signature / Firma del titular

Este passaporte deve ser assinado pelo titular,
salvo em caso de incapacidade.

Ce passeport doit être signé par le titulaire,
sauf en cas d'incapacité.

This passport must be signed,
except where the bearer is unable to do so.

Este pasaporte debe ser firmado por el titular,
salvo en caso de incapacidad.

REPÚBLICA FEDERATIVA DO BRASIL

PASSAPORTE
PASSPORT

TIPO / TYPE
P

PAÍS EMISSOR / ISSUING COUNTRY
BRA

FW397671

SOBRENOME / SURNAME
GARCEZ LOTUFO

NOME / GIVEN NAMES
LUIZ HENRIQUE



NACIONALIDADE / NATIONALITY
BRASILEIRO(A)

DATA DO NASCIMENTO / DATE OF BIRTH
05 OUT/OCT 1964

IDENTIDADE Nº / PERSONAL No

SEXO / SEX
M

NATURALIDADE / PLACE OF BIRTH
TAUBATÉ/SP

FILIAÇÃO / FILIATION
LUIZ DE GONZAGA LOTUFO

OLARPHA GARCEZ LOTUFO

DATA DE EXPEDIÇÃO / DATE OF ISSUE
05 JUL/JUL 2018

AUTORIDADE / AUTHORITY
DPF/SJK/SP

VÁLIDO ATÉ / DATE OF EXPIRY
04 JUL/JUL 2028

P<BRAGARCEZ<LOTUFO<<LUIZ<HENRIQUE<<<<<<<<<<<
FW397671<6BRA6410050M2807041<<<<<<<<<<<<<<00

THE UNITED STATES OF AMERICA

VISA



Issuing Post Name
SAO PAULO

Control Number
20232212360009

Surname
GARCEZ LOTUFO

Given Name
LUIZ HENRIQUE

Visa Type /Class
R B1/B2

Passport Number	Sex	Birth Date	Nationality
FW397671	M	05OCT1964	BRZL

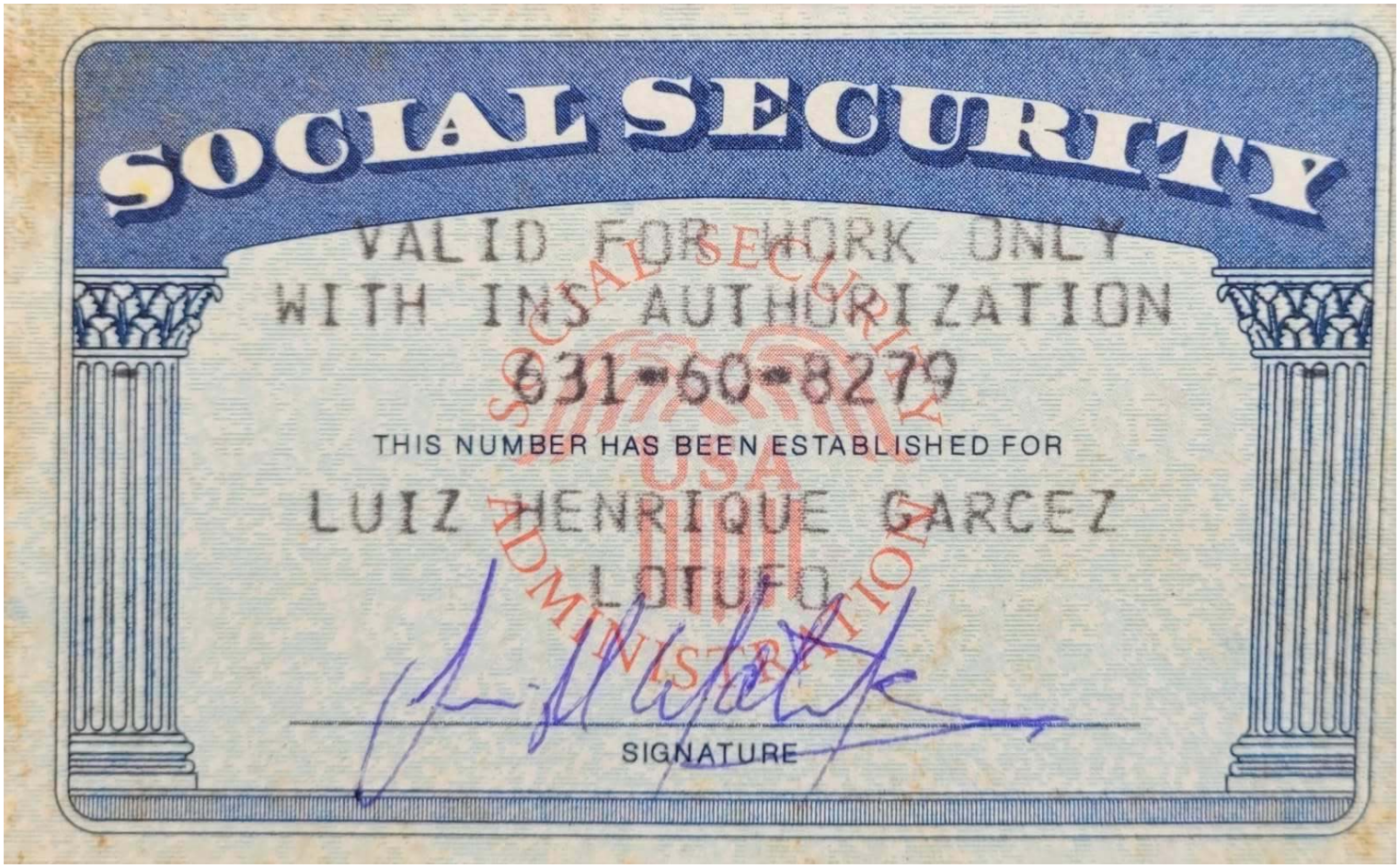
Entries	Issue Date	Expiration Date	
M	14AUG2023	08AUG2033	1000

Annotation

T4577755

VNUSAGARCEZ<LOTUFO<<LUIZ<HENRIQUE<<<<<<<<<<<

FW397671<6BRA6410050M3308084B3SPL3L2Q0910978


SOCIAL SECURITY
VALID FOR WORK ONLY
WITH INS AUTHORIZATION
031-60-8279
THIS NUMBER HAS BEEN ESTABLISHED FOR
LUIZ HENRIQUE GARCEZ
LOTUFO
SIGNATURE
SOCIAL SECURITY
ADMINISTRATION
USA

This card is the official verification of your Social Security number. Please sign it right away. Keep it in a safe place.

Improper use of this card or number by anyone is punishable by fine, imprisonment or both.

This card belongs to the Social Security Administration and you must return it if we ask for it.

If you find a card that isn't yours, please return it to:

Social Security Administration
P.O. Box 17087, Baltimore, MD 21235

For any other Social Security business/information, contact your local Social Security office. If you write to the above address for any business other than returning a found card, it will take longer for us to answer your letter.

Social Security Administration
Form **SSA–3000** (4–95)

D50568990

Seal No. 1138602CE000000022295625L
Check the authenticity of the Digital Seal at
https://selodigital.tjsp.jus.br/

FEDERATIVE REPUBLIC OF BRAZIL
CIVIL REGISTRY OF NATURAL PERSONS

MARRIAGE CERTIFICATE

Current name of the spouses	CPF
LUIZ HENRIQUE GARCEZ LOTUFO	**081.112.348-05**
SILVIA REGINA FARIA DOS SANTOS LOTUFO	**098.696.318-60**

Registration
113860 01 55 2005 3 00005 048 0001247 06

1st Spouse	Date of Birth		
LUIZ HENRIQUE GARCEZ LOTUFO	05	10	1964

Nationality	Marital Status	City of Birth	State
Brazilian	Single	Taubaté	São Paulo

Parents
OLARPHA GARCEZ LOTUFO:LUIZ DE GONZAGA LOTUFO

Name Adopted
LUIZ HENRIQUE GARCEZ LOTUFO

2nd Spouse	Date of Birth		
SILVIA REGINA FARIA DOS SANTOS	18	05	1968

Nationality	Marital Status	City of Birth	State
Brazilian	Single	Delfim Moreira	Minas Gerais

Parents
ALCIDIA BRANDÃO DE FARIA SANTOS; MARTINIANO JOSÉ DOS SANTOS

Name Adopted
SILVIA REGINA FARIA DOS SANTOS LOTUFO

Date of marriage or conversion of the stable union	Month	Date	Year
November twenty-six, two thousand five	26	11	2005

Marital Property Regime
Partial Community Property

Date of the marriage registration	Month	Date	Year
November twenty-ninth, two thousand five	29	11	2005

Notes / Annotations
CPF ANNOTATION: The spouses are registered in the CPF under No. 081.112.348-05 and No. 098.696.318-60, according to the database of the Federal Revenue Service of Brazil. Taubaté, 10/10/2025 by clerk Bianca Cristine da S. Souza. Date of annotation: 10/10/2025. Nothing further was required for me to certify.

Office name
Civil Registry - 1st Subdistrict
Registrar
REGISTRAR - MARIA PAULA BITTANTE OLIVEIRA BARRICHELLO
City/State
Taubaté/São Paulo
Address
Rua Sacramento, 60, Centro. ZIP Code 12010-010

FEES: R$ 55.36, ISS: R$ 2.77, STATE TREASURY: R$ 11.07,
TOTAL: R$ 69.20

The content of this certificate is true. I certify.
Taubaté, October 10, 2025.

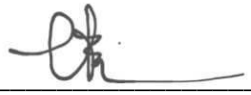
----//signature//----

Bianca Cristine da S. Souza
Clerk

CIVIL REGISTRY
1ST SUBDISTRICT OF TAUBATÉ - SP

IA013967102

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



_____ Date: November 3, 2025.

REPÚBLICA FEDERATIVA DO BRASIL
REGISTRO CIVIL DAS PESSOAS NATURAIS

Selo nº 1138602CE000000022295625L
Consulte a Autenticidade do Selo Digital em
https://selodigital.tjsp.jus.br/

CERTIDÃO DE CASAMENTO

Nome atual dos cônjuges	Número do CPF
LUIZ HENRIQUE GARCEZ LOTUFO	081.112.348-05
SILVIA REGINA FARIA DOS SANTOS LOTUFO	098.696.318-60

Matrícula
113860 01 55 2005 3 00005 048 0001247 06

1º Cônjuge

				data de nascimento
LUIZ HENRIQUE GARCEZ LOTUFO	05	10	1964	

Nacionalidade	Estado civil	Município de naturalidade	UF
brasileira	solteiro	Taubaté	SP

Genitor(es)
OLARPHA GARCEZ LOTUFO;LUIZ DE GONZAGA LOTUFO

Nome que passou a utilizar
LUIZ HENRIQUE GARCEZ LOTUFO

2º Cônjuge

				data de nascimento
SILVIA REGINA FARIA DOS SANTOS	18	05	1968	

Nacionalidade	Estado civil	Município de naturalidade	UF
brasileira	solteira	Delfim Moreira	MG

Genitor(es)
ALCIDIA BRANDÃO DE FARIA SANTOS;MARTINIANO JOSÉ DOS SANTOS

Nome que passou a utilizar
SILVIA REGINA FARIA DOS SANTOS LOTUFO

Data de celebração do casamento ou conversão da união estável

Vinte e seis de novembro de dois mil e cinco	26	11	2005

Regime de bens
Comunhão Parcial de Bens

Data de registro do casamento

Vinte e nove de novembro de dois mil e cinco	29	11	2005

Anotações/Averbações

AVERBAÇÃO DE CPF: Os contraentes estão inscritos no CPF sob nº 081.112.348-05 e nº 098.696.318-60, conforme base de dados da Receita Federal do Brasil. Tté, 10/10/2025. A esc. Bianca Cristine da S. Souza Data da averbação: 10/10/2025. Nada mais me cumpria certificar.

Nome do ofício
Registro Civil 1º sub distrito
Oficial registrador
OFICIAL - MARIA PAULA BITTANTE OLIVEIRA BARRICHELLO
Município/UF
Taubaté/SP
Endereço
Rua Sacramento, 60, Centro. Cep 12010-010

O conteúdo da certidão é verdadeiro. Dou fé.
Taubaté, 10 de outubro de 2025.

Bianca Cristine da S. Souza
Escrevente

EMOLUMENTOS: R$ 55,36, ISS: R$ 2,77, SEC FAZENDA: R$ 11,07, TOTAL: R$ 69,20

REGISTRO CIVIL 1º SUB DISTRITO DE TAUBATÉ-SP

IA 013967102

Indústria Gráfica Brasileira Ltda

CIVIL REGISTRY 1ST SUBDISTRICT OF TAUBATÉ SP

FEDERATIVE REPUBLIC OF BRAZIL
CIVIL REGISTRY OF NATURAL PERSONS

BIRTH CERTIFICATE

Name

SILVIA REGINA FARIA DOS SANTOS

CPF

098.696.318-60

Registration

037754 01 55 1968 1 00040 139 0016764 14

Date of birth	Day	Month	Year
May eighteenth, nineteen sixty-eight	18	05	1968

Time of birth	City of birth	State
05:10 PM	DELFIM MOREIRA	Minas Gerais

Place of birth	City of birth	State	Sex
Residence: RUA FRANCISCO MACHADO	DELFIM MOREIRA	Minas Gerais	Female

Parent's name	City of birth	State
MARTINIANO JOSÉ DOS SANTOS	DELFIM MOREIRA	Minas Gerais

Respective grandparents

CARLOS ALBERTO DOS SANTOS; DELMA VIANA DOS SANTOS;

Parent's name	City of birth	State
ALCIDIA BRANDÃO DE FARIA SANTOS	DELFIM MOREIRA	Minas Gerais

Respective grandparents

PAULINO GONÇALVES DE FARIA; ALCIRA BRANDÃO DE FARIA;

Date of registration	Live birth registration number
May twentieth, nineteen sixty-eight	NO RECORD

Notes/Annotations

On 10/13/2025, was recorded the MARRIAGE of the registered person to LUIZ HENRIQUE GARCEZ LOTUFO, which took place on 11/26/2005 in Taubaté/São Paulo, with the spouse beginning to sign as SILVIA REGINA FARIA DOS SANTOS LOTUFO, according to the entry in Book 5-B-AUX, page 48, record 1247 of the Civil Registry of Natural Persons of the 1st Subdistrict of Taubaté/ São Paulo. On 10/13/2025, the registered person's CPF was annotated following a consultation of the Federal Revenue Service of Brazil database, made available by the Civil Registry Information Center - CRC.

Voluntary registration notes

Others: 098.696.318-60, Issuing Authority: OTHER.

Certificate issued by Camilla Rossi Simioni - Registrar of the Civil Registry of Natural Persons of Delfim Moreira - Minas Gerais - 037754, who electronically signed this certificate on 10/13/2025, in accordance with Article 19 of Law No. 6.015/73 and Article 228-F of the National Code of Standards of the Judicial Administrative Department of the National Council of Justice - Extrajudicial Forum (CNN/CN/CNJ-Extra).

I certify that, on 10/17/2025, this certificate, sent through the system of the National Civil Registry Operator of Brazil, was materialized, and I have verified the authenticity of the document and its digital signature.

Digital seal of issuance: 1OU95283
Security code: 8695.0487.9995.1814
CNS No. 037754
Registrar of Civil Registry of Natural Persons
Delfim Moreira - Minas Gerais

Camilla Rossi - Registrar

Avenida Juscelino K. de Oliveira, No. 319 - Vargem ZIP: 37514-000 - Phone: (35) 3624-1377
Email: cartoriodelfim@hotmail.com

The content of this certificate is true. I certify.

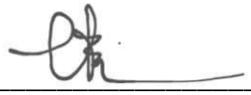
----//signature//----

Taubaté - 1st Subdistrict - São Paulo - 113860
Victor Eduardo Mello Da Costa - Clerk
Digital seal of materialization: 1138602CE000000022367225W
Amount received for the electronic certificate: R$ 74.38
Amount received for the materialization: R$ 46.13

Validation: https://certidao.registrocivil.org.br/validar - Validator Code: iame-8k0w
The QR Code of the inspection seal from the State Courts will be available in the validation table of this certificate at the address above when it is not present on the certificate itself.

IA 013967463

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



_____ Date: November 3, 2025.

REGISTRO CIVIL 1º SUB DISTRITO DE TAUBATÉ-SP

REPÚBLICA FEDERATIVA DO BRASIL
REGISTRO CIVIL DAS PESSOAS NATURAIS

CERTIDÃO DE NASCIMENTO

Nome
SILVIA REGINA FARIA DOS SANTOS

Número do CPF
098.696.318-60

Matrícula
037754 01 55 1968 1 00040 139 0016764 14

Data de nascimento	Dia	Mês	Ano
dezoito de maio de um mil e novecentos e sessenta e oito	18	05	1968

Horário de nascimento	Município da naturalidade	UF
17:10 horas	DELFIM MOREIRA	MG

Local de nascimento	Município de nascimento	UF	Sexo
Domicílio: RUA FRANCISCO MACHADO	DELFIM MOREIRA	MG	feminino

Nome do(a) genitor(a)	Município de nascimento	UF
MARTINIANO JOSÉ DOS SANTOS	DELFIM MOREIRA	MG

Avô(ó)(s) respectivo(s)
CARLOS ALBERTO DOS SANTOS; DELMA VIANA DOS SANTOS;

Nome do(a) genitor(a)	Município de nascimento	UF
ALCIDIA BRANDÃO DE FARIA SANTOS	DELFIM MOREIRA	MG

Avô(ó)(s) respectivo(s)
PAULINO GONÇALVES DE FARIA; ALCIRA BRANDÃO DE FARIA;

Data de registro	DNV
vinte de maio de um mil e novecentos e sessenta e oito	NÃO CONSTA

Anotações/Averbações

Aos 13/10/2025, foi anotado o CASAMENTO da registrada com LUIZ HENRIQUE GARCEZ LOTUFO, ocorrido aos 26/11/2005 em Taubaté/SP, sendo que a contraente passou a assinar SILVIA REGINA FARIA DOS SANTOS LOTUFO, conforme assento lavrado no Livro 5-B-AUX, folhas 48, termo 1247 do RCPN do 1º Subdistrito de Taubaté/SP. Aos 13/10/2025, foi averbado o CPF da registrada após consulta realizada à base de dados da Receita Federal do Brasil disponibilizada pela Central de Informações do Registro Civil - CRC.

Anotações voluntárias de cadastro
outros: 098.696.318-60, Orgão Emissor: OUTROS.

Certidão lavrada por Camilla Rossi Simioni - Oficial do Registro Civil de Pessoas Naturais de Delfim Moreira - MG - 037754, o qual assinou eletronicamente esta certidão em data 13/10/2025, nos termos do artigo 19 da Lei n. 6.015/73, e do artigo 228-F do Código Nacional de Normas da Corregedoria Nacional de Justiça do Conselho Nacional de Justiça – Foro Extrajudicial (CNN/CN/CNJ-Extra).

Certifico que, em data de 17/10/2025, foi materializada esta certidão enviada pelo sistema do Operador Nacional do Registro Civil do Brasil, sendo a autenticidade do documento e da sua assinatura digital por mim conferida.

Selo digital da emissão: IOU95283
Cod. Segurança: 8695.0487.9995.1814
CNS Nº 037754
Oficial de Registro Civil das Pessoas Naturais
Delfim Moreira - MG

Camilla Rossi - Oficial

Avenida Juscelino K. de Oliveira , nº 319 - Vargem CEP: 37514000 - Fone: (35)36241377
e-mail: cartoriodelfim@hotmail.com

O Conteúdo da certidão é verdadeiro. Dou fé.

Taubaté - 1º Subdistrito - SP - 113860
Victor Eduardo Mello Da Costa - Escrevente
Selo digital da Materialização: 1138602CE000000022367225W
Valor recebido pela certidão eletrônica: R$ 74,38
Valor recebido pela materialização: R$ 46,13

Validação: https://certidao.registrocivil.org.br/validar Código Validador: iame-8k0w
O QR Code do selo de fiscalização dos Tribunais de Justiça Estaduais estará disponível na tabela de validação desta certidão no endereço mencionado abaixo quando não estiver presente na própria certidão.

Indústria Gráfica Brasileira Ltda

IA 013967463

Seal No. 1212102CE000000022517225L
Check the authenticity of the Digital Seal at
https://selodigital.tjsp.jus.br/

FEDERATIVE REPUBLIC OF BRAZIL
CIVIL REGISTRY OF NATURAL PERSONS

BIRTH CERTIFICATE

Name
MARIA CLARA DOS SANTOS LOTUFO

CPF
241.002.148-47

Registration
121210 01 55 2009 1 00145 178 0086269 48

Date of birth	Day	Month	Year
January fifth, two thousand nine	05	01	2009

Time of birth	City of birth	State
08:25 PM	Taubaté	São Paulo

Place of birth	City of birth	State	Sex
Policlin Hospital and Maternity	Taubaté	São Paulo	Female

Parent's name	City of birth	State
LUIZ HENRIQUE GARCEZ LOTUFO	Taubaté	São Paulo

Respective grandparents
Luiz de Gonzaga Lotufo; Olarpha Garcez Lotufo

Parent's name	City of birth	State
SILVIA REGINA FARIA DOS SANTOS LOTUFO	Delfim Moreira	Minas Gerais

Respective grandparents
Martiniano José dos Santos; Alcidia Brandão de Faria Santos

Date of registration	Live birth registration number
January sixth, two thousand nine	No record

Notes/Annotations

Act recorded in Book A-145, on page 178v, under No. 86269.
I CERTIFY that in the appropriate column of this record there is the following note: The registered person is enrolled in the CPF under No. 241.002.148-47, according to a search conducted today with the Federal Revenue Service of Brazil, through the Civil Registry Central - CRC, in accordance with Provision No. 63/2017 of the National Justice Council. Taubaté, 12/06/22. Clerk: LAA Cordeiro. Nothing further was required for me to certify.

REGISTRATION NOTES
*The above registration notes do not exempt the presentation of the original document when required by the requesting authority.

Office name - 2nd Civil Registry Office of Taubaté
Registrar - Marcello Verderamo
City/State - Taubaté/São Paulo
Address - Praça Doutor Monteiro No.103

FEES: R$ 55.36, ISS: R$ 2.77, STATE TREASURY: R$ 11.07, TOTAL: R$ 69.20

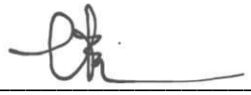
The content of this certificate is true. I certify.
Taubaté, October 17, 2025.

----//signature//----

Luciana Aparecida Alves Cordeiro - Clerk

IA011168492

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.


_____ Date: November 3, 2025.

Selo nº 1212102CE000000022517225L
Consulte a Autenticidade do Selo Digital em
https://selodigital.tjsp.jus.br/

REPÚBLICA FEDERATIVA DO BRASIL
REGISTRO CIVIL DAS PESSOAS NATURAIS

CERTIDÃO DE NASCIMENTO

Nome

MARIA CLARA DOS SANTOS LOTUFO

Número do CPF

241.002.148-47

Matrícula

121210 01 55 2009 1 00145 178 0086269 48

Data de nascimento	Dia	Mês	Ano
Cinco de janeiro de dois mil e nove	05	01	2009

Horário de nascimento	Município de naturalidade	UF
20h25min	Taubaté	SP

Local nascimento	Município de nascimento	UF	Sexo
Hospital e Maternidade Policlin	Taubaté	SP	Feminino

Nome do(a) Genitor(a)	Município de nascimento	UF
LUIZ HENRIQUE GARCEZ LOTUFO	Taubaté	SP

Avô(ó) respectivo(s)

Luiz de Gonzaga Lotufo; Olarpha Garcez Lotufo

Nome do(a) Genitor(a)	Município de nascimento	UF
SILVIA REGINA FARIA DOS SANTOS LOTUFO	Delfim Moreira	MG

Avô(ó) respectivo(s)

Martiniano José dos Santos; Alcidia Brandão de Faria Santos

Data de registro	DNV
Seis de janeiro de dois mil e nove	Não informado

Anotações/Averbações

Ato registrado no Livro A-145, às folhas 178v, sob o nº 86269.
CERTIFICO que na coluna própria do presente assento consta a seguinte anotação: A registrada é inscrita no Cadastro de Pessoas Físicas sob o nº 241.002.148-47, conforme pesquisa realizada, nesta data junto a Receita Federal do Brasil, por meio da central de Registro Civil - CRC, nos termos do Provimento 63/2017 do Conselho Nacional de Justiça. Taubaté, 06/12/22. A escrevente (a) LAACordeiro. Nada mais me cumpria certificar.

ANOTAÇÕES DE CADASTRO
* As anotações de cadastro acima não dispensam a apresentação do documento original, quando exigida pelo órgão solicitante.

Nome do Ofício 2º Oficial de Registro Civil de Taubaté
Oficial Registrador Marcello Verderamo
Município/UF Taubaté/SP
Endereço Praça Doutor Monteiro nº 103

O conteúdo da certidão é verdadeiro. Dou fé.
Taubaté, 17 de outubro de 2025.

Luciana Aparecida Alves Cordeiro - Escrevente

EMOLUMENTOS: R$ 55,36, ISS: R$ 2,77, Sec. Fazenda: R$ 11,07, TOTAL: R$ 69,20

IA 01116849 2

Indústria Gráfica Brasileira Rolo

maria clara dos Santos Lotufo

Assinatura do titular / Signature du titulaire
Bearer's signature / Firma del titular

GG3949888

Este passaporte deve ser assinado pelo titular, salvo em caso de incapacidade.

Ce passeport doit être signé par le titulaire, sauf en cas d'incapacité.

This passport must be signed, except where the bearer is unable to do so.

Este pasaporte debe ser firmado por el titular, salvo en caso de incapacidad.

REPÚBLICA FEDERATIVA DO BRASIL

PASSAPORTE
PASSPORT

TIPO / TYPE: P
PAÍS EMISSOR / ISSUING COUNTRY: BRA
PASSAPORTE Nº / PASSPORT No.: GG394988

SOBRENOME / SURNAME
DOS SANTOS LOTUFO



NOME / GIVEN NAMES
MARIA CLARA

NACIONALIDADE / NATIONALITY
BRASILEIRO(A)

DATA DO NASCIMENTO / DATE OF BIRTH
05 JAN/JAN 2009

IDENTIDADE Nº / PERSONAL No.

SEXO / SEX: F
NATURALIDADE / PLACE OF BIRTH: TAUBATÉ/SP

FILIAÇÃO / FILIATION
LUIZ HENRIQUE GARCEZ LOTUFO

SILVIA REGINA FARIA DOS SANTOS LOTUFO

O titular, enquanto menor, dependerá de autorização, na forma da lei, para viajar desacompanhado ou apenas com um dos pais, indistintamente.

DATA DE EXPEDIÇÃO / DATE OF ISSUE
09 MAR/MAR 2023

AUTORIDADE / AUTHORITY
DPF/CZO/SP

VÁLIDO ATÉ / DATE OF EXPIRY
08 MAR/MAR 2028

P<BRADOS<SANTOS<LOTUFO<<MARIA<CLARA<<<<<<<<<
GG394988<7BRA0901059F2803087<<<<<<<<<<<<<<02

FW397672

Assinatura do titular / Signature du titulaire
Bearer's signature / Firma del titular

Este passaporte deve ser assinado pelo titular, salvo em caso de incapacidade.

Ce passeport doit être signé par le titulaire, sauf en cas d'incapacité.

This passport must be signed, except where the bearer is unable to do so.

Este pasaporte debe ser firmado por el titular, salvo en caso de incapacidad.

REPÚBLICA FEDERATIVA DO BRASIL

PASSAPORTE
PASSPORT



TIPO / TYPE: P
PAÍS EMISSOR / ISSUING COUNTRY: BRA
PASSAPORTE Nº / PASSPORT No.: FW397672

SOBRENOME / SURNAME
FARIA DOS SANTOS LOTUFO

NOME / GIVEN NAMES
SILVIA REGINA

NACIONALIDADE / NATIONALITY
BRASILEIRO(A)

DATA DO NASCIMENTO / DATE OF BIRTH
18 MAI/MAY 1968

IDENTIDADE Nº / PERSONAL No.

SEXO / SEX
F

NATURALIDADE / PLACE OF BIRTH
DELFIM MOREIRA/MG

FILIAÇÃO / FILIATION
MARTINIANO JOSÉ DOS SANTOS

ALCIDIA BRANDÃO DE FARIA SANTOS

DATA DE EXPEDIÇÃO / DATE OF ISSUE
05 JUL/JUL 2018

AUTORIDADE / AUTHORITY
DPF/SJK/SP

VÁLIDO ATÉ / DATE OF EXPIRY
04 JUL/JUL 2028

P<BRAFARIA<DOS<SANTOS<LOTUFO<<SILVIA<REGINA<
FW397672<9BRA6805182F2807041<<<<<<<<<<<<<<04


UNITED STATES OF AMERICA
VISA
Issuing Post Name
SAO PAULO
Surname
DOS SANTOS LOTUFO
Given Name
MARIA CLARA
Passport Number
GG394988
Entries
M
Annotation
Control Number
20232210760038
Visa Type /Class
R B1/B2
Sex
F
Birth Date
05JAN2009
Nationality
BRZL
Issue Date
11AUG2023
Expiration Date
08AUG2033
0110
T4578353
VNUSADOS<SANTOS<LOTUFO<<MARIA<CLARA<<<<<<<<<<
GG394988<7BRA0901059F3308084B3SPL3L16M243486


THE UNITED STATES OF AMERICA
VISA
Issuing Post Name
SAO PAULO
Surname
FARIA DOS SANTOS LOTUFO
Given Name
SILVIA REGINA
Passport Number
FW397672
Sex
F
Entries
M
Annotation
Issue Date
14AUG2023
Control Number
20232212360010
Visa Type /Class
R B1/B2
Birth Date
18MAY1968
Nationality
BRZL
Expiration Date
08AUG2033
1011
T4579079
**
VNUSAFARIA<DOS<SANTOS<LOTUFO<<SILVIA<REGINA<
FW397672<9BRA6805182F3308084B3SPL3L3XG842082