BOOK OF ABSTRACTS



In-Person Event Promoted by DECEA and ICEA

Vol. 3 (2025)

BOOK OF ABSTRACTS

12th GEIA Seminar, 2025

ACRONYMS AND ABREVIATIONS:

AE: Aeronautical English

AFA: Brazilian Air Force Academy

ATCO: Air Traffic Controller

DECEA: Brazilian Department of Airspace Control

EEAR: School of Aeronautics Specialists

EPLIS: Exame de Proficiência em Inglês Aeronáutico do SISCEAB

ESP: English for Specific Purposes

GEIA: Grupo de Estudos em Inglês Aeronáutico / Aeronautical English Research Group

ICAO: International Civil Aviation Organization

ICEA: Airspace Control Institute

LHUFT: Language as a Human Factor

LPRs: Language Proficiency Requirements

Book of Abstracts
12th GEIA Seminar, 2025
Vol. 3 (2025)

ISSN 3086-092X

DOI 10.5281/zenodo.17280834

https://doi.org/10.5281/zenodo.17280834

Authorized photocopying
This publication may be reproduced, stored or transmitted, with the prior consent of the leader and vice-leader of GEIA (geia.icea@fab.mil.br)
For further information, go to GEIA website:
https://geia.icea.decea.mil.br/geia/eventos.php

Promoted by:

DECEA

Director-General
General Maurício Augusto Silveira de Medeiros

Vice-Director
Major Brigadier Engineer Alexandre Arthur Massena Javoski

Subdepartment of Administration Chief
Brigadier of the Air Luciano Cantuária Pietrani

Professional Training Division Chief
Colonel Aviator Cristiano de Uzêda Pinto

Aeronautical English Coordinator
Prof. MSc. Natália de Andrade

ICEA

Director
Colonel Engineer Carlos de Oliveira Zica

Teaching Division Chief
Lt. Col. Adilson Cleomenes Rocha

Aeronautical English Sub-division Chief
Prof Dr Patrícia Tosqui Lucks

Head of the Aeronautical English Training Section
Prof Dr Patrícia Tosqui Lucks

Public Relations
Lieutenant Raquel Gonçalves A. S. Fernandes
Sergeant Bruno Thiago Jardim dos Santos

GEIA Organizing Committee

Colonel Aviator Cristiano de Uzêda Pinto (DECEA) – Officer-in-charge
Patrícia Tosqui Lucks (ICEA) – Seminar general coordination

Natália de Andrade (DECEA)
2S Franz da Silva Sales (DECEA)
2S Stephanie Faria Rodrigues (DECEA)
2S Aline Manso de Barros (DECEA)

Patrícia Palhares Tupinambá Fernandes de Sá (ICEA)
Juliana de Castro Santana (SDTP – ICEA)
Marcia Ferreira de Souza (SDTP – ICEA)
Fernanda Harrisberger (SDTP – ICEA)
1Ten Raquel Gonçalves A. S. Fernandes (ICEA)
2S Bruno Thiago Jardim dos Santos (ICEA)

2S Virgínia Thais Guedes Mignoni Evaristo (CGNA)
2S Armindo José Martins Pereira Neto (CGNA)
2S Pedro Gervu Amaro da Silva (ICA)
2S Aryanne de Moraes Junqueira (CINDACTA I)
2S Kátia Magalhães Carvalho (DTCEA-CO)
3S Gabriel De Oliveira Rodrigues Marques (CINDACTA III)
CV Dacta Fabio Rizzuto (CINDACTA IV)
2S Thalita Diniz De Souza (CRCEA SE)

GEIA Scientific Committee

Patrícia Tosqui Lucks (ICEA)
Patrícia Palhares Tupinambá Fernandes de Sá (ICEA)
Paula Ribeiro e Souza (ICEA)
Juliana de Castro Santana (SDTP - ICEA)

Web Developers

SO Luiz Manoel Almeida de Araujo (ICEA)
1S Bruno Fernandes dos Remédios (ICEA)

Edition by ICEA – Airspace Control Institute

Praça Marechal-do-Ar Eduardo Gomes, 50 – Campus do DCTA
São José dos Campos, SP, Brazil.
Zip Code: 12228-615

SUMMARY

Welcoming words……..…..7

Program…….…..…..8

Abstract - Keynote Speaker……12

Abstract - Workshop 1…….....…..13

Abstract - Workshop 2……..…….…..….13

Abstracts - Session 1: *Aviation English Teaching*……...…14

Abstract - Workshop 3…….…..……...16

Abstract - Workshop 4…….....17

Abstract - Workshop 5…….....17

Abstract - Workshop 6…….....18

Abstract - Workshop 7…….....19

Abstracts - Session 2: *Aviation Language Description and Analysis*…….19

Abstracts - Session 3: *Effective Communication, Safety and Motivation*...21

Abstract - Workshop 8…….....23

Abstract - Workshop 9…….....24

Abstract - Workshop 10 …….....24

Abstract - Workshop 11…….....25

Abstract - Workshop 12…….....25

Abstract – Closing Lecture…….....26

Welcome to the 12th GEIA Seminar!

The Organizing Committee welcomes all GEIA members, researchers and Aviation English professionals from all over the world to the 12th GEIA Seminar. For the first time, the event will be hosted by DECEA – the Brazilian Department of Airspace Control, in the vibrant city of Rio de Janeiro. This edition offers enriching opportunities to exchange insights, experiences and research findings on a variety of themes, including: aeronautical English (AE) teaching, learning and assessment; aviation language description and analysis; course design and new technologies; the effect of motivation in professional settings; and the impact of language as a human factor in aviation.

Our keynote speaker, Elizabeth Mathews from Embry-Riddle Aeronautical University, will open the seminar with an essential reminder: language is more than a medium - it is a human factor with direct implications for aviation safety.

From Monday to Wednesday, the event is open to the international community, all GEIA members and other interested parties. The program comprises 07 workshops that promote hands-on activities to dig into relevant topics and skills, such as: AE training and testing, AI tools for AE teaching, effective listening activities for AE learners, and EdTech tools for course design. Additionally, there will be 09 oral presentations divided into 03 sessions. The speakers, who come from all over the world (Asia, Europa, North and South America), invite us to reflect on how technology can enrich – not override – the irreplaceable value of human knowledge, comprising language awareness, motivational aspects, and interpersonal communication.

Thursday and Friday are reserved exclusively for the teacher development of Brazilian Air Force AE instructors. There will be 05 workshops tailored to their unique needs: practical activities for teaching pronunciation and grammar, game-based activities, error correction and actionable feedback. They will also receive some guidance on their important roles as AE instructors.

In the closing lecture, Valeria Silva de Oliveira will discuss the development of instructional materials and tools for teaching ESP to Navy officers.

We are proud to host this landmark event that brings together participants from all around the world who share the goal of making the skies safer.

We are thankful to:

- DECEA (Brazilian Department of Airspace Control) and ICEA (Airspace Control Institute), for promoting the event.

- GEIA Organizing Committee for taking care of the countless tasks that made this event so special.

- All presenters who kindly shared their research and meaningful practices with us.

- GEIA members who are always so engaged and enthusiastic about our Seminar.

- The attendees: air traffic controllers, pilots, teachers, raters, researchers and all those who share the same love for English and Aviation.

- ICAEA (International Civil Aviation English Association) for helping spread the news about the 12th GEIA Seminar to the international aviation English community.

- The international audience for the interest and collaboration with us.

Enjoy the Seminar!

PROGRAM

12TH GEIA SEMINAR

IN-PERSON EVENT Rio de Janeiro, November 24-28, 2025

Monday – November 24th

Keynote speaker

Language as a Human Factor in Aviation - a new paradigm
Elizabeth MATHEWS - Embry-Riddle Aeronautical University - ERAU (USA)

Workshop 1

Increasing awareness of language as a human factor in aviation
Jennifer ROBERTS - Embry-Riddle Aeronautical University- ERAU (USA)

Workshop 2

What are we really assessing? A practical approach to aeronautical English assessment literacy
Natalia de ANDRADE – Department of Airspace Control – DECEA (Brazil)
Paula Ribeiro e SOUZA – Airspace Control Institute – ICEA (Brazil)
Natália de Castro GUERREIRO - Southeast Regional Center for Airspace Control CRCEA-SE – (Brazil)
Beatriz Faria ARAGÃO - Airspace Control Institute – ICEA (Brazil)

Tuesday – November 25th

Session 1 - Aviation English Teaching: Course Design and New Technologies

1. *From cockpit to communication: teaching aviation English through immersive flight simulation*
Alexandre Ribeiro DELIBERADOR - Directorate of Aeronautical Education - DIRENS (Brazil)

2. *When "birds" need virtual air traffic control*
Marcos ROCHA - Brazilian Air Force Academy – AFA (Brazil)

3. *Aviation English education in Hong Kong's secondary schools and university-based cadet pilot programs*
Eric FRIGINAL - The Hong Kong Polytechnic University (China)
Frederick CHEUNG - Chinese YMCA Secondary Schools (China)
Chris ETWISTLE - The Hong Kong Polytechnic University (China)

Workshop 3

Exploring EdTech tools for aviation English teaching
Daniela TERENZI - Federal Institute of Education, Science and Technology of São Paulo – IFSP (Brazil)

Workshop 4

Autopilot on? Teaching students when to rely on AI – and when not to
Andy MATTINGLY - Embry-Riddle Aeronautical University- ERAU (USA)
Thiago SILVA - TW Aviation English (Brazil)

Workshop 5

Aeronautical English listening tests: How could authenticity be increased?
Angela C. M. GARCIA - National Civil Aviation Agency – ANAC (Brazil)
Ana Graziela T. de MENDONÇA - National Civil Aviation Agency – ANAC (Brazil)
Rodrigo N. CAMPOS - National Civil Aviation Agency – ANAC (Brazil)

Wednesday – November 26th

Workshop 6

Learning to listen – unwrapping appropriate listening activities for aviation English learners
Neil BULLOCK - Englishplus LTS (Spain / Switzerland)

Workshop 7

Tech-enhanced vocabulary instruction: AI tools for aviation English training
Mackarena VILLARROEL - Chilean Air Force - FACH (Chile)
Yanet DÍAZ - Federico Santa María Technical University – USM (Chile)

Session 2 – Aviation Language Description and Analysis

1. *A spoken learner corpus-based study of Brazilian ab-initio air traffic controllers' English language production with focus on pronunciation*
Elida Maria Rodrigues BONIFÁCIO - School of Aeronautics Specialists - EEAR (Brazil)

2. *Radiotelephony conflicts: an analysis of impoliteness metadiscourse in YouTube video comments*
Edelvais CALDEIRA - Brazilian Air Force - CIAAR (Brazil)

3. *Proposal of a revised REDEMET glossary as an institutional specialized terminographic product*
Rafaela Rigaud PEIXOTO - Department of Airspace Control – DECEA (Brazil)

Session 3 – Effective Communication, Safety and Motivation

1. *From text to training: understanding and teaching safety discourse in aircraft maintenance manuals*
Eric FRIGINAL - The Hong Kong Polytechnic University (China)
Amber WANG - The Hong Kong Polytechnic University (China)

2. *Enhancing aviation English proficiency: the role of motivation and continuous training in aviation safety*
Edy GAMARRA - General Directorate of Civil Aeronautics – DGAC (Peru)

3. *Motivational aspects regarding learning aeronautical English: we need to talk about it*
Marja MARTINS - 3rd Integrated Air Defense and Air Traffic Control Center - CINDACTA III (Brazil)

Event Closure – The GEIA Organizing Committee

Thursday – November 27th

Workshop 8

Vectoring learners through grammar
Natália de Castro GUERREIRO - Southeast Regional Center for Airspace Control CRCEA-SE – (Brazil)

Workshop 9

Games with a flight plan: using games smartly and with a purpose
Lucas TELLES Gonçalves - Southeast Regional Center for Airspace Control CRCEA-SE – (Brazil)

Workshop 10

What, when and how to approach feedback in aeronautical English classes
Juliana SANTANA - Airspace Control Institute – ICEA (Brazil)
Marcia FERREIRA DE SOUZA - Airspace Control Institute – ICEA (Brazil)
Patrícia TUPINAMBÁ - Airspace Control Institute – ICEA (Brazil)
Fernanda HARRISBERGER - Airspace Control Institute – ICEA (Brazil)

Workshop 11

Designing effective teaching materials for adult learners
Danielle Mendes SALES – University of São Paulo - USP (Brazil)

Workshop 12

Integrating pronunciation into language instruction
Eliane Nowinski da ROSA – Independent researcher (Brazil)

Friday – November 28th

Guidance for the Brazilian Aeronautical English Instructors

Closing Lecture

The Brazilian Merchant Navy and the Teaching of English for Specific Purposes
Valéria Silva de OLIVEIRA - Centro de Instrução Almirante Graça Aranha (Brazilian Navy)

ABSTRACT - KEYNOTE SPEAKER

Language as a Human Factor in Aviation - a new paradigm

Elizabeth MATHEWS (ERAU – Embry-Riddle Aeronautical University, Daytona Beach, Florida, USA. Associate Professor, Department of Applied Aviation Sciences; mathewe1@erau.edu)

The ICAO Language Standards and Recommended Practices were adopted more than twenty years ago. The global response has been robust, and many more aviation English teaching and testing programs exist now than before the adoption of the ICAO LPRS. Nonetheless, challenges remain. Another inevitable and positive consequence of the ICAO language proficiency requirements has been a heightened awareness of the role of language across all aspects of aviation safety. For historical reasons, the ICAO LPRS only address radiotelephony communications. However, findings from the LHUFT Research Committee at Embry-Riddle confirms that language impacts safety in many ways, including crew resource management communication, training effectiveness and the need for reading proficiency. One role of applied linguists is to lead the industry to an improved understanding of language as a human factor. Models of human factors in aviation provide a framework for the investigation of human factors in aviation accidents. While all acknowledge the importance of communication to aviation safety, none address language factors specifically. The Embry-Riddle Taxonomy of Communication and Language Factors in Aviation was developed as a tool to help accident investigators distinguish between a range of communication factors and language factors. The Embry-Riddle Taxonomy is an initial step to provide support, and there is more work to be done. One question, then, is how do we, as applied linguists, respond to increasing awareness of the critical role of language in aviation given the great gaps that remain within the industry around language overall? The presentation will present and discuss a range of gaps that remain around language in the aviation industry.

Keywords: Language, human factors, Linguistics, safety

ABSTRACT – WORKSHOP 1

Increasing Awareness of Language as a Human Factor in Aviation

Jennifer ROBERTS (ERAU – Embry-Riddle Aeronautical University-Worldwide, United States, Interim Department Chair, Department of Aviation English; roberj62@erau.edu)

The ICAO Language Proficiency Requirements (LPRs) have raised industry awareness of how language factors contribute to aviation safety, but the overall understanding of language as a human factor in aviation safety (LHUFT) is still a gap for many aviation professionals. Pilot-controller radiotelephony communications have traditionally been the aviation domain which receives the most attention, but language also affects aviation safety in flight deck communications (i.e. Crew Resource Management), the use of written documents (e.g. manuals, checklists, safety briefings), and training environments. To work towards reducing this gap in understanding, Aviation English courses have an opportunity to include LHUFT topics in course curricula to help develop aviation professionals' awareness of the role of language in aviation safety. This workshop will explore how Aviation English courses can include a focus on LHUFT while also helping learners develop key language and communication skills needed to perform their job duties in English.

Keywords: Human Factors, LHUFT, Curriculum Development.

ABSTRACT – WORKSHOP 2

What are we really assessing? A practical approach to Aeronautical English assessment literacy

Natalia de ANDRADE (DECEA - Department of Airspace Control, Rio de Janeiro, RJ, Brazil. Aeronautical English Project Manager; natalianar@decea.mil.br)

Paula Ribeiro e SOUZA (ICEA - Airspace Control Institute, São José dos Campos, SP, Brazil. Aeronautical English Assessment Supervisor, paulaprs1@fab.mil.br)

Natália de Castro GUERREIRO (CRCEA-SE - Southeast Regional Center for Airspace Control, São Paulo, SP, Brazil. Languages Section Manager, nataliaguerreironcg@fab.mil.br)

Beatriz Faria ARAGÃO (ICEA - Airspace Control Institute, São José dos Campos, SP, Brazil. Aeronautical English Assessment Manager, beatrizbfa@fab.mil.br)

This hands-on workshop aims to enhance Aeronautical English teachers' assessment literacy through a practical introduction to key principles in language testing. Participants will critically examine sample assessment tasks, considering concepts such as validity, reliability, practicality, and washback in a classroom context. The session will focus on raising awareness of effective test design and assessment practices,

offering tools that participants can begin to apply in their own teaching environments. While not exhaustive, the workshop seeks to promote more informed assessment choices in Aeronautical English instruction, ultimately supporting clearer communication in aviation and contributing incrementally to overall flight safety.

Keywords: Aeronautical English, assessment literacy, classroom applications, assessment practices

ABSTRACTS - SESSION 1 - AVIATION ENGLISH TEACHING: COURSE DESIGN AND NEW TECHNOLOGIES

1. From cockpit to communication: teaching aviation English through immersive flight simulation

Alexandre Ribeiro DELIBERADOR (DIRENS – Directorate of Aeronautical Education, Brazilian Air Force, Brasília, Brazil. Chief of Projects and Innovation Division; alexandreard@fab.mil.br)

This presentation explores how the Brazilian Air Force's T2000 simulator has evolved into a strategic platform for teaching and learning Aviation English through immersive, task-based instruction. Originally developed for the operational training of cadets on T-25 and T-27 aircraft, the T2000 combines custom-built hardware, high-fidelity 3D environments, and integrated voice communication systems that enable meaningful language use within realistic flight scenarios. The simulator supports a wide range of mission profiles—including pre-solo, instrument procedures, and formation flying—during which cadets engage in real-time communication using ICAO-standard phraseology. Instructors provide bilingual briefings, targeted feedback, and structured repetition, promoting both operational proficiency and language retention. The T2000 applies Content and Language Integrated Learning (CLIL) strategies to embed English naturally into aviation tasks such as ATC interaction, navigation, and emergency response. This approach mirrors real-world demands and enhances both confidence and linguistic accuracy. With 16 simulators currently in operation and recent upgrades including interaction with international controllers and scripted FAA/ICAO-compliant missions, the T2000 has significantly improved language readiness across training phases. This session will highlight the instructional methodologies used, present video excerpts of live training, and demonstrate how simulation-based education can transform Aviation English instruction into a dynamic and mission-driven learning experience.

Keywords: Aviation English, immersive learning, simulator-based instruction, ICAO phraseology, task-based learning

2. When “birds” need virtual air traffic control

Marcos ROCHA (AFA - Brazilian Air Force Academy, Pirassununga, São Paulo, Brazil. Virtual Air Traffic Controller, Simulation Training Squadron; rochamra@fab.mil.br)

In this presentation, I will discuss the Brazilian Air Force’s Virtual Airspace training program, which utilizes simulated flights conducted under real-time control operations by certified Brazilian and American air traffic controllers via the PilotEdge platform. Throughout these training sessions, Air Force Academy (AFA) instructor pilots and cadets engage in realistic radio communication, using authentic Brazilian and American frequencies to interact with various air traffic control facilities while being monitored through the AFA Shared Cockpit station. To demonstrate the program’s effectiveness, I will conduct a real-time control session (via an on-stage radar scope), issuing instructions (FAA and ICAO phraseology) in both English and Portuguese language to pilots from four different continents, showcasing the capabilities of the Brazilian Virtual Airspace in enhancing training authenticity for both pilots and air traffic controllers. Additionally, I will present strategies and resources designed to anticipate and address common challenges faced by pilots and ATCOs while communicating on radiotelephony. This presentation will highlight how immersive simulation, combined with targeted educational tools, strengthens operational proficiency and communication skills in aviation training using English (FAA and/or ICAO) as the international aviation language.

Keywords: virtual airspace, shared cockpit, authenticity, anticipating, English for aviation

3. Aviation English education in Hong Kong's secondary schools and university-based cadet pilot programs

Eric FRIGINAL (The Hong Kong Polytechnic University, Hong Kong, China. Head of the Department of English and Communication; eric.friginal@polyu.edu.hk)

Frederick CHEUNG (Chinese YMCA Secondary Schools, Hong Kong, Hong Kong, China. Principal of Chinese YMCA)

Chris ETWISTLE (The Hong Kong Polytechnic University, China. Head of Training, Department of Aeronautical and Aviation Engineering)

Aviation English education plays a vital role in preparing the next generation of aviation professionals, particularly in multilingual and globalized contexts such as Hong Kong. This presentation explores the design, implementation, and outcomes of two distinct aviation education programs in Hong Kong: aviation-focused secondary school initiatives and university-based cadet pilot training programs. Both programs, while serving different stages of professional development, share a common goal of equipping learners with the linguistic and technical competencies required for success in the aviation industry. The secondary school initiatives aim to inspire and prepare Hong Kong’s youth for careers in aviation, introducing foundational aviation knowledge and emphasizing Aviation English as a critical skill for future industry engagement. In

contrast, the university-based cadet pilot programs provide rigorous, industry-aligned professional training, culminating in employment with a partner airline. Aviation English is a cornerstone of both programs, ensuring that graduates can communicate effectively in high-stakes, international aviation environments. This presentation draws on the experiences of professionals involved in the development and delivery of these programs, highlighting key successes, challenges, and lessons learned. From the integration of Aviation English into secondary curricula to the alignment of university-level training with international operational requirements, the discussion will showcase how these initiatives address the linguistic and technical demands of aviation while tailoring education to the unique sociolinguistic context of Hong Kong. By sharing these experiences, this presentation aims to contribute to the global conversation on aviation training, demonstrating how innovative educational strategies can bridge the gap between foundational preparation and professional readiness in the aviation industry.

Keywords: aviation education programs, aviation English, international aviation environments.

ABSTRACT – WORKSHOP 3

Exploring EdTech tools for aviation English teaching

Daniela TERENZI (Federal Institute of Education, Science and Technology of São Paulo – IFSP, Brazil. Associate professor at IFSP; daniela.terenzi@ifsp.edu.br)

Educational technology (EdTech) tools have the potential to enhance learner engagement providing opportunities for all students (who wish) to participate, including those who are more reserved or less enthusiastic about participating in class activities. This workshop presents and briefly explores the use of selected EdTech tools such as TED-Ed, Quizlet, Nearpod, YouGlish and also ChatGPT in the context of teaching English for Specific Purposes (ESP), with a focus on Aviation English. TED-Ed might be used for listening comprehension lessons based on videos. Quizlet facilitates vocabulary study by offering customizable flashcards and gamified learning activities, especially useful for technical aviation terminology. Nearpod allows the creation of interactive (PowerPoint) presentations that combine multimedia resources with real-time assessments. YouGlish is a useful source of examples to practice pronunciation as it allows learners to hear aviation-related terms in authentic spoken contexts in real-life videos. As ChatGPT is usually used by students to answer questions and generate texts, a simple idea for a vocabulary activity using it will be presented, focusing on technical terms commonly used in Aviation English. The presentation will include a short hands-on experience with some of these tools, allowing participants to reflect on how they might use them with their own students. Participants will be encouraged to think about possible advantages and disadvantages, what may make it easier or harder in using EdTech tools in their specific teaching contexts.

Keywords: Educational technology tools, ESP, aviation English teaching.

ABSTRACT – WORKSHOP 4

Autopilot on? Teaching students when to rely on AI – and when not to

Andy MATTINGLY (ERAU – Embry-Riddle Aeronautical University, Daytona Beach campus, Daytona Beach, Florida, USA. Educational Specialist & Instructor of English as a Second Language in the Embry-Riddle Language Institute (International Education division); andy.mattingly@erau.edu)

Thiago SILVA (TW Aviation English, São Paulo, São Paulo, Brazil. CEO and Co-founder, Executive Office; www.thiagosilva@gmail.com)

As generative AI becomes more integrated into language learning, Aviation English instructors face new challenges: guiding students to use AI tools effectively while maintaining the safety, clarity, and standardization critical to aviation communication. This interactive workshop helps instructors develop a clear framework for when generative AI can be used safely and appropriately in both text-based and speech-based Aviation English practice. The first half of the workshop focuses on text-to-text tools, exploring how they can support grammar editing, vocabulary development, and plain English paraphrasing. The second half focuses on speech-to-speech tools, emphasizing their potential for pronunciation support, shadowing radiotelephony exchanges, and scaffolding listening comprehension. In both segments, participants will act as students, test prompts for each use case, and reflect on what worked and what did not. Participants will also explore the risks of misuse and how to identify situations where generative AI-use is not safe or appropriate. Attendees will leave with ready-to-use prompts, strategies for safe classroom integration, and a practical framework for evaluating generative AI use in student learning. The session will conclude with a discussion of current student habits and how instructors can guide more responsible and effective use of generative AI in Aviation English.

Keywords: generative AI, Aviation English, language learning, prompt design, safety and standardization

ABSTRACT – WORKSHOP 5

Aeronautical English listening tests: how could authenticity be increased?

Angela C. M. GARCIA (ANAC - National Civil Aviation Agency, Belo Horizonte, MG, Brazil. Civil Aviation Regulation Specialist, Language Proficiency Group; angela.garcia@anac.gov.br)

Ana Graziela T. de MENDONÇA (ANAC - National Civil Aviation Agency, São Paulo, SP, Brazil. Air Traffic Controller, Language Proficiency Group; ana.mendonca@anac.gov.br)

Rodrigo N. CAMPOS (ANAC - National Civil Aviation Agency, São José dos Campos, SP, Brazil. Civil Aviation Regulation Specialist, Language Proficiency Group; rodrigo.campos@anac.gov.br)

The authenticity of test tasks is an important consideration for test developers when designing assessments tasks for professional purposes. Listening tests should include the assessment of real-world listening abilities. Features of spoken language include, among others, hesitations (such as filled and unfilled pauses), repetitions, false starts, and corrections. However, listening tests usually rely on scripted texts. This workshop aims to discuss the importance of including authentic and/or authenticated texts in listening tests that assess aeronautical English. It will begin with a brief presentation on the theoretical rationale behind test authenticity, the characteristics of spoken language, and possible ways to use authentic or authenticated texts in aeronautical English assessments. The second part will involve practical activities, including a discussion of participants' assessment practices and the development of authenticated listening tasks using artificial intelligence. These activities may be useful not only for test developers, but also for aeronautical English teachers, who can incorporate these training needs into their teaching practice.

Keywords: aeronautical English assessment, listening tasks, authenticity, artificial intelligence, language proficiency test design

ABSTRACT – WORKSHOP 6

Learning to listen – unwrapping appropriate listening activities for aviation English learners

Neil BULLOCK (ENGLISHPLUS LTS, Spain / Switzerland. Language Consultant; neilbullock@englishplus.ch)

Listening is perhaps the most difficult language skill to teach as visible learning cannot easily be observed. Whether and how a person has also understood the message complicates matters even further. Listening makes up between 40 and 50% of spoken communication and therefore developing specific listening *and* comprehension skills for aviation communication is an integral part of flight safety. Often, language learning focusses heavily on speaking, and listening is thought to just develop itself as learners are exposed to more spoken language. Learning is often carried out in decontextualized non-collaborative listening tasks, or, when done collaboratively, there is little real understanding of the levels and skills involved for listening and comprehension. Such approaches inevitably lead to a huge imbalance in the required skills for pilots and ATCOs, meaning that while speaking can be seen to measurably develop, progress in listening *and* having a clear understanding becomes somewhat arbitrary. This workshop examines listening *and* comprehension by building a clearer theoretical and practical approach to help teachers help learners develop their listening and comprehension skills. Activities will focus on the actual listening processes, including how developing listening moves the reception of sounds, to building meaning from those sounds, as well as helping to recognize how stress and rhythm patterns of natural spoken language differ markedly from isolated pronunciation practice. The tasks will also focus on the micro-skills of listening which demonstrate a clearer understanding of the listening construct for pilots and controllers and provide teachers with more appropriate ideas for classroom tasks.

Keywords: listening, comprehension, skills, learning, aviation

ABSTRACT – WORKSHOP 7

Tech-enhanced vocabulary instruction: AI tools for aviation English training

Mackarena VILLARROEL (FACH – Chilean Air Force, Santiago de Chile, Chile. Aviation English Instructor, Language Squadron; missmackarena@gmail.com)

Yanet DÍAZ (USM – Federico Santa María Technical University, Santiago de Chile, Chile. Aviation English Instructor and ICAO Rater, Department of Aeronautics; yanetdiaz@hotmail.com)

This 90-minute workshop is designed for Aviation English instructors, raters, and professionals who train pilots, air traffic controllers, and other operational staff. It provides practical, evidence-based tools for improving the teaching and learning of technical vocabulary in aviation contexts. The session addresses common challenges in vocabulary instruction, including pronunciation, contextual use, and grammatical flexibility. Participants will explore strategies such as cognate association, phrase substitution, concept grouping, and targeted pronunciation drills, all aimed at increasing lexical retention and communicative competence in real-life operational scenarios. A key feature of this workshop is the integration of AI-powered tools and mobile apps to support vocabulary acquisition, self-paced learning, and real-time feedback on pronunciation and fluency. All activities are designed to be smartphone-friendly, ensuring accessibility and engagement during the session. Participants will leave with a set of ready-to-use classroom resources and digital activities. The workshop ultimately explores how emerging technologies can enhance Aviation English instruction by empowering learners with the lexical tools needed for clear, accurate, and safe communication in global aviation environments.

Keywords: Aviation English, technical vocabulary, AI tools, learning experience, efficient communication

ABSTRACTS - SESSION 2: AVIATION LANGUAGE DESCRIPTION AND ANALYSIS

1. A spoken learner corpus-based study of Brazilian ab initio air traffic controllers' English language production with focus on pronunciation

Elida Maria Rodrigues BONIFÁCIO (EEAR - School of Aeronautics Specialists, Guaratinguetá, São Paulo, Brazil. English language teacher; elidaemrb1@fab.mil.br)

This study aims to present an overview of some pronunciation aspects of Brazilian *ab initio* air traffic controllers' English language production. The International Civil Aviation Organization (ICAO, 2004; 2010) establishes six language categories as language criteria so that pilots and air traffic controllers can have their English proficiency assessed, and pronunciation is one of those categories. Few researches have been conducted in the pronunciation aspect of Aeronautical English learners. Swan and Smith (2001), Babboni (2017), Babboni and Quast (2018; 2020) had already analyzed not only the most common pronunciation difficulties that Brazilian Portuguese speakers

face while learning English, but also the interference of mother tongue sounds, especially phonemes, in the second language production. Jenkins (2000) also suggests that some pronunciation characteristics do not interfere in the comprehension, particularly in the production of language as *lingua franca.* Moreover, the language accommodation (Jenkins, 2022) should also take place to guarantee efficient communication. With the purpose of analyzing in more practical terms the military air traffic controllers' pronunciation features, a 445,178-word spoken-learner corpus was compiled (Aeronautical English Brazilian Spoken Learner Corpus – *ab initio* Military Air Traffic Controllers – AEBSLeC – AbMATCO) and subdivided into four subcorpora: a) First graders – more proficient; b) First graders – less proficient; c) Forth graders – more proficient; d) Forth graders – less proficient. Based on the corpus, some pronunciation aspects (phonemes and prominent syllable) of each group were identified and analyzed with Lancsbox 6.0 (Brezina et al., 2021). The pronunciation errors were registered using the Arpabet (Jurafsky; Martin, 2023), a transcription strategy that can be read by computational tools. One of the hypotheses is that more proficient students that are more advanced in the course tend to produce fewer errors than the other students.

Keywords: spoken-learner corpus, *ab initio* air traffic controllers, pronunciation, phonemes, prominent syllable

2. Radiotelephony conflicts: an analysis of impoliteness metadiscourse in YouTube video comments

Edelvais CALDEIRA (CIAAR – Brazilian Air Force, Lagoa Santa, Minas Gerais, Brazil. Assistant Professor; edelvaiscaldeira@gmail.com)

This study investigates how impoliteness is perceived and evaluated in the context of aviation communication, specifically focusing on viewer responses to conflictual pilot and air traffic controller interactions via radiotelephony, as depicted in a YouTube video. Drawing from impoliteness theory (CULPEPER, 2010, 2011; CUNHA & OLIVEIRA, 2020; OLIVEIRA & MIRANDA, 2022; LEECH, 2014; ISHIHARA & LEE, 2021) and metadiscourse analysis (CULPEPER, 2010; OLIVEIRA & MIRANDA, 2024; HAUGH, 2024), we examine how viewers perceive and interpret instances of impolite linguistic behavior, referred to in the literature as first-order impoliteness. From this perspective, 81 second-level comments posted in response to the content creator's initial post were analyzed. These comments were categorized according to their evaluative stance toward the pilot, the air traffic controllers, other commenters, and technical issues related to radiotelephony communication. The findings reveal how commenters use language to assign blame, express moral judgments, and position themselves within the discourse, often through unmitigated impoliteness, mock impoliteness, or indirect judgments. The study highlights how metadiscourse serves as a crucial analytic tool for understanding how viewers construct meaning, establish social norms, and negotiate alignment or opposition in digital discourse. Moreover, this work might contribute to the field of aviation studies by providing a distinctive perspective on the social and communicative dynamics that shape conflict within aviation communication, as well as focusing on how public interactions, via platforms like YouTube, shape perceptions of professional conduct in aviation.

Keywords: Impoliteness metadiscourse, language of conflict; radiotelephony, impoliteness in digital platforms

3. Proposal of a revised REDEMET glossary as an institutional specialized terminographic product

Rafaela Araújo Jordão Rigaud PEIXOTO (DECEA – Department of Airspace Control, Rio de Janeiro, Rio de Janeiro, Brazil. Translator and Researcher; Standards Division; rafaelarajrp@decea.mil.br)

The development of terminographic products has to bring together needs of both specialized and institutional nature when it comes to specialized institutions, especially in government sectors. From that perspective, this postdoctoral work, finished in 2023, unfolds in two parts: (1) discussing fundamental distinctions between specialized translation and institutional translation, based on analysis of the state-of-the-art of institutional specialized glossaries and databases in Brazil and overseas; and (2) proposing a revised REDEMET glossary, in the field of aeronautical meteorology, to contain normative and descriptive information based on validated specialized corpora. By taking into account rationales of corpus linguistics (TOGNINI-BONELLI, 2001; TAGNIN, 2015), specialized translation (FUERTES-OLIVERA; TARP, 2014; FINATTO, 2001; PRADO, 2015) and institutional translation (KANG, 2020; KOSKINEN, 2008, 2009 and 2011), some validation parameters were developed to process information to be included in the glossary with 116 terms, to be mainly consulted by professional and academic audiences. The terminological study showed that the selected terms have a more applied scope than the terms originally contained in the REDEMET glossary, developed by operational personnel. Therefore, these results suggest that corpus linguistics could be potentially used to provide a more trustworthy terminographic product, since comprehension and applicability of specialized terms are derived from validated corpora, not solely any institutional corpora produced.

Keywords: aviation, aeronautical meteorology, institutional translation, specialized translation

ABSTRACTS – SESSION 3: EFFECTIVE COMMUNICATION, SAFETY AND MOTIVATION

1. From text to training: understanding and teaching safety discourse in aircraft maintenance manuals

Eric FRIGINAL (The Hong Kong Polytechnic University, Hong Kong, Head of the Department of English and Communication; eric.friginal@polyu.edu.hk)

Amber WANG (The Hong Kong Polytechnic University, Hong Kong, PhD candidate in the Department of English and Communication)

Effective written communication is a cornerstone of aviation safety, yet it presents a significant challenge in a global industry where approximately 80% of maintenance technicians are non-English first language (L1) speakers. These professionals are

required to produce precise and detailed maintenance records and reports in English, a task that demands both linguistic accuracy and technical clarity. This study tackles this issue through a mixed-methods approach that integrates corpus linguistics analysis with the development and implementation of pedagogical tools. To uncover linguistic patterns characteristic of aviation maintenance documentation, the research examined six commercial aircraft maintenance manuals widely used in the industry, building a robust corpus of 27 million words. Using Biber's (1988) multi-dimensional analysis framework, the study identified key functional dimensions of aviation maintenance English by analyzing clusters of co-occurring linguistic features. The analysis revealed four core control mechanisms that underpin effective communication in this domain: (1) structured elaboration of discourse, (2) precise lexical choices, (3) syntactic simplicity, and (4) clear referential strategies. Together, these mechanisms optimize the balance between technical precision and information density required in aviation maintenance documentation. Building on these findings, the study designed specialized technical writing materials tailored to the linguistic demands of aviation maintenance English, especially non-L1 speakers. These materials underwent iterative refinement and validation by subject matter experts to ensure their practical relevance. This research bridges the gap between theoretical linguistic analysis and hands-on pedagogy by developing practical, evidence-based training materials. The study not only highlights the specific linguistic features that characterize aviation maintenance English but also demonstrates how these insights can be translated into effective training interventions, ultimately supporting safer and more efficient aviation operations.

Keywords: Effective written communication, aviation safety, aircraft maintenance manuals, corpus linguistics analysis, pedagogical tools

2. Enhancing aviation English proficiency: the role of motivation and continuous training in aviation safety

Edy GAMARRA (DGAC - General Directorate of Civil Aeronautics, Lima, Peru. Language Expert at the Language Proficiency Department in the DGAC; egamarra@mtc.gob.pe)

Aviation English proficiency is a fundamental requirement for aviation personnel, ensuring safety, efficiency, and effective global communication. However, achieving and maintaining high levels of language competence is a persistent challenge for aviation professionals, especially those who may not be exposed to English as a first language. This presentation explores the pivotal role of motivation—both intrinsic and extrinsic—in enhancing aviation personnel's ability to improve their language skills. Additionally, it examines how aviation companies can establish a culture of continuous training to ensure long-term language proficiency. A recent study performed in the city of Lima targeting Air Traffic Controllers showed somewhat interesting results that could easily reflect a situation other aviation personnel can feel identified with since there's still a lot of ground to cover in terms of language proficiency in Aviation English. Motivation significantly influences aviation personnel's willingness and ability to improve their English proficiency, directly impacting operational safety and effectiveness. By understanding the role of intrinsic and extrinsic motivation, aviation companies can design training programs that not only meet regulatory standards but also foster a sustainable learning culture. This presentation will offer practical recommendations for industry leaders, aviation trainers, and policy-makers to enhance

language training methodologies and support aviation professionals in achieving linguistic excellence.

Keywords: Aviation English proficiency, Motivation, Language competence, Continuous training, Air Traffic Controllers

3. Motivational aspects regarding learning aeronautical English: we need to talk about it

Marja MARTINS (CINDACTA III - 3rd Integrated Air Defense and Air Traffic Control Center, Recife, Pernambuco, Brazil. Lieutenant QOCon MIM; marjamfm@fab.mil.br)

The demand for effective communication in Aeronautical English involves both linguistic challenges and motivational factors that influence learning. Motivation, a dynamic and essential element, significantly impacts language acquisition in specialized fields like aviation. In Brazil, motivation is crucial for engaging learners in high-stakes environments, which require strict phraseology and intercultural understanding. Affective factors such as intrinsic and extrinsic motivation play a vital role in mastering specialized terminology and communication skills. This presentation highlights the importance of addressing learners' emotional needs through pedagogical strategies that enhance motivation. Neglecting these factors can hinder instruction and reduce communicative competence in aviation contexts. By integrating research findings with classroom practices, this study proposes actionable strategies to improve learner engagement and foster supportive environments. Ultimately, motivation is key to language proficiency and contributes directly to aviation safety.

Keywords: Motivation, aeronautical English, language acquisition

ABSTRACT – WORKSHOP 8

Vectoring learners through grammar

Natália de Castro GUERREIRO (CRCEA-SE - Southeast Regional Center for Airspace Control, São Paulo, SP, Brazil. Languages Section Manager, nataliaguerreironcg@fab.mil.br)

Love it or hate it, grammar will always be part of Aeronautical English lessons, since it is essential for clear and safe communication. In this workshop, we will practice vectoring learners through grammar without overwhelming them—or ourselves. We will explore the role of model sentences and break down what makes an effective Concept Checking Question (CCQ), a tool to clarify meaning, confirm usage, and check whether learners truly understand a structure. You will then create your own CCQs, tailored to the real-world needs of ATC students and to their proficiency level. We will also navigate a few go-to grammar references worth adding to your teaching toolkit, so you will always have solid backup when planning lessons or answering tricky questions. Whether you have never formally studied grammar or simply want to make your teaching more engaging and effective, this session will equip you with practical tools and strategies you can start using immediately, keeping your learners on course for accurate, confident communication.

Keywords: grammar teaching, Aeronautical English, English for Specific Purposes

ABSTRACT – WORKSHOP 9

Games with a flight plan: using games smartly and with a purpose

Lucas TELLES GONÇALVES (CRCEA-SE - Southeast Regional Center for Airspace Control, São Paulo, Brazil. Instructor and training coordinator at the São Paulo Approach Control; lucastellesltg@fab.mil.br)

This workshop explores the effective and creative use of games in classroom, emphasizing the importance of aligning game-based activities with clear educational objectives. While games are often associated with fun and engagement, their full potential as pedagogical tools depends on thoughtful planning and purposeful implementation. Participants will be encouraged to reflect on the importance of defining learning goals when incorporating games and to consider how factors such as student profile (age, experience, level), time of day, class duration, among others can impact student engagement. This session aims to demonstrate the adaptability and flexibility of games. Teachers will be reminded of how to adjust and personalize game-based exercises according to their students' needs and classroom dynamics. Creativity and perception play essential roles in adapting games, allowing instructors to transform even familiar activities into meaningful and contextually relevant learning experiences. By the end of the workshop, attendees are expected to feel more confident and motivated to incorporate games into their teaching routines, adapt them creatively, and maintain a clear focus on their educational purpose.

Keywords: game-based learning, educational objectives, student engagement, classroom adaptability, teacher creativity

ABSTRACT – WORKSHOP 10

What, when and how to approach feedback in aeronautical English classes

Juliana de Castro SANTANA (FSDTP / ICEA - Airspace Control Institute, São José dos Campos, SP, Brazil. Aeronautical English Training Sector. English consultant; julianajcs@decea.mil.br)

Marcia FERREIRA DE SOUZA (FSDTP / ICEA - Airspace Control Institute, São José dos Campos, SP, Brazil. Aeronautical English Training Sector. English consultant; marciamsf@decea.mil.br)

Fernanda HARRISBERGER (FSDTP / ICEA - Airspace Control Institute, São José dos Campos, SP, Brazil. Aeronautical English Training Sector. English consultant; fernandafah@decea.mil.br)

Patrícia TUPINAMBÁ (ICEA - Airspace Control Institute, São José dos Campos, SP, Brazil. Supervisor of the Aeronautical English Training Sector; patriciapalharespptfs@fab.mil.br)

Providing meaningful and appropriate feedback is perhaps one of the most challenging roles in teaching. What should we provide feedback on? When and how should we do it? Are error correction and feedback the same thing? What constitutes effective feedback in aeronautical English classes after all? These are some of the questions we aim to address in this workshop. When properly linked to learning objectives, feedback is a crucial part of the learning process, as it creates opportunities for students to practice and reflect on the target language, communicating progress to both: learners and instructors. Therefore, developing specific strategies to turn feedback into a learning opportunity (actionable feedback), while raising students' language awareness is a key factor affecting learning outcomes. This workshop emphasizes the importance of feedback in promoting reflection and action on the part of the learner, by using a practical approach to help instructors develop relevant ways of offering effective feedback and error correction. The contextualized examples and explanations will explore different strategies and tools to provide instructors with a clearer and practical understanding of feedback offer, as we carry out work-related, communicative and collaborative tasks.

Keywords: meaningful feedback, error correction, teaching strategies, learning outcomes, aeronautical English

ABSTRACT – WORKSHOP 11

Designing Effective Teaching Materials for Adult Learners

Danielle Mendes SALES (USP - University of São Paulo, SP, Brazil. Editor, translator and proofreader; daniellesales77@gmail.com)

This hands-on workshop will introduce educators to key editorial principles used in the development of high-quality teaching materials. Drawing on techniques from the publishing industry, participants will learn how to write and structure content clearly, adapt texts to their audience, and make editorial choices that enhance readability and pedagogical effectiveness. The session will focus on practical strategies for creating materials that support adult learners, respecting their context and needs. By the end of the workshop, each teacher will leave with new editorial tools and deeper insight into the publishing process.

Keywords: teaching materials, adult learners, learning materials, publishing process, ELT

ABSTRACT – WORKSHOP 12

Integrating pronunciation into language instruction

Eliane Nowinski da ROSA (Canoas, Rio Grande do Sul, Brazil. Independent researcher; elianenowinski@gmail.com)

When we communicate, we usually produce sequences of sounds to convey meaning. Considering that sounds and prosody make part of the grammar of a language and miscommunication in English is common among its users around the world, we assume

that pronunciation should be taught in connection with vocabulary and grammar in language classroom. Studies (FOOTE *et al*., 2013; BAKER, 2014; MURPHY, 2014; KIRKOVA-NASKOVA *et al.*, 2013; COUPER, 2016; BAI; YUAN, 2019; ROSA, 2023; among others) carried out with ESL/EFL teachers in several countries have shown that most of them feel insecure and/or unable to teach pronunciation due to not having been trained for this purpose. Based on those issues, this workshop intends to provide some guidance on teaching pronunciation under a cognitive and sociocultural framework (ROSA, 2023). It also aims to suggest some practical activities in order to help ESL/EFL teachers/instructors integrate pronunciation more effectively into their daily classroom work.

Keywords: English language, pronunciation teaching, theoretical-methodological support

ABSTRACT – CLOSING LECTURE

The Brazilian Merchant Navy and the Teaching of English for Specific Purposes

Valeria Silva de Oliveira (BN – Brazilian Navy, Rio de Janeiro, RJ, Brasil. Professor of Higher Education, Basic Subjects Department; voliveirj@gmail.com)

This presentation aims, at first, to briefly present the origins of the Brazilian Merchant Navy, the training of merchant officers in Brazil, and relevant publications in order to describe the context and target public of English for Specific Purposes (ESP) teaching. Subsequently, based on the needs of the target audience, English language teaching/learning theories (Brown, 2015; Harmer, 2015; Myles, 2013), studies on (multi)literacies (Kalantzis; Cope, 2012), and a multimodal approach to social semiotics (Kress; Van Leeuwen, 1998, 2001, 2006; Kress, 2003; Ribeiro, 2021), the table of content and sections of one of the units and the Teacher's Guide developed by this researcher, from a study conducted between 2021 and 2022, will be presented. The aforementioned unit offers opportunities for the meaningful development of the four English language skills — reading, writing, listening, and speaking — as well as the systems — grammar, vocabulary, phonology, and discourse. Moreover, texts, videos, audio materials, and references not originally designed for English language teaching — that is, authentic materials — were used as means to help students develop real and communicative English. The Teacher's Guide contains the general and specific teaching and learning objectives and the answer key for each activity, in addition to guidelines and suggestions aimed at increasing students' learning opportunities. Finally, within the scope of present/future perspectives, a glossary prepared by students, under my supervision, will be presented, as well as some artificial intelligence tools that are being tested by this researcher in the ongoing process of developing instructional resources for the target audience. It also highlights the urgent need for the creation of additional instructional materials focusing on the teaching and learning of English for Specific Purposes to meet the needs of merchant navy officers, according to their respective fields of work: Nautical Sciences (Deck Department) and Nautical Sciences (Engine Department).

Keywords: English for Specific Purposes, Maritime English, Merchant Marine, Elaboration of Teaching Material



Making the skies safer

since 2013

Grupo de Estudos em Inglês Aeronáutico
Aeronautical English Research Group