Supporting the Training of Aviation English Trainers and Assessors:

Reading You 5 by 5

Supporting the Training of Aviation English Trainers and Assessors:

Reading You 5 by 5

By

Anna P. Borowska and Olena Petrashchuk

Cambridge
Scholars
Publishing

Supporting the Training of Aviation English Trainers and Assessors: Reading You 5 by 5

By Anna P. Borowska and Olena Petrashchuk

This book first published 2024

Cambridge Scholars Publishing

Lady Stephenson Library, Newcastle upon Tyne, NE6 2PA, UK

British Library Cataloguing in Publication Data
A catalogue record for this book is available from the British Library

ISBN: 978-1-0364-1342-2
ISBN (Ebook): 978-1-0364-1343-9

Dedicated to all future Aviation English trainers and assessors who aspire to contribute to aviation safety

TABLE OF CONTENTS

LIST OF TABLES AND ILLUSTRATIONS

LIST OF SCENARIOS AND ILLUSTRATIONS

FOREWORD

All language professionals involved in the teaching and assessing of language skills take a keen interest in how effectively those they are teaching / training and / or assessing communicate in the target language, i.e. the language which is being taught or assessed. However, in the domain of aviation, this "interest" takes on an additional dimension, that of safety considerations (which may admittedly also be significant for other language users) where, potentially, the lives of hundreds of people depend on clear and unambiguous communication.

Since its inception, the International Civil Aviation Organisation (ICAO) has recognised the importance of clear and precise communications to safe operations in aviation and soon came to realise that the English language could play a significant role in addressing communications issues and, as a result, in improving safety. Consequently, this led to the ICAO recommending the establishment of a worldwide minimum English language standard for use on civil aviation, a recommendation which has been implemented since 2008. However, this, in turn, required the definition of that minimum standard and a means of demonstrating that it had been met. It is the implications and complexities of this undertaking which are explored by Professor Borowska and Professor Petrashchuk in *Supporting the Training of Aviation English Trainers and Assessors: Reading You 5 by 5*, alongside practical recommendations as to how these challenges may be addressed by trainers, examiners and raters.

English is, therefore, not only a crucial communicative tool for literally millions of aviation professionals as they carry out their activities but also one which is regulated by international agreements which, in some cases, have been translated into law. It is curious, then, that despite the importance of English in the world of aviation, that so little attention has been paid to the training of aviation English language trainers and assessors. Existing publications tend to focus on classroom resources and, valuable as these may be, they do not address the fundamental issues of the key competencies required by trainers, and assessors, nor do they give any indication as to how they may set about acquiring them. These are precisely the issues which Prof. Borowska and Prof. Petrashchuk seek to address.

Prof. Borowska and Prof. Petrashchuk's book initially gives a clear outline of the regulatory framework governing language use in aviation,

with detailed reference to key ICAO and EASA texts, notably, ICAO Doc. 9835. The authors next highlight how these regulatory requirements may be translated into the key competencies required for Aviation English Trainers and Assessors. The specialist aspects of the use of English in aviation contexts should not be underestimated. Even experienced English language trainers and assessors will not necessarily be able to instantly turn their expertise to the requirements of the aviation industry. Equally, aviation professionals, even when they have high level proficiency in English, will not necessarily have the pedagogical and theoretical knowledge required of AETs and AEAs. Prof. Borowska and Prof. Petrashchuk cater effectively for both audiences and do so in terms which are accessible for those who do not have an in-depth knowledge of the aviation industry and of interest to those who do.

From this base, in their third chapter, Prof. Borowska and Prof. Petrashchuk provide their reader – either those organising training courses for AETs or AEAs or for future AETs and AEAs themselves as self-study materials – the practical tools to acquire and develop the necessary skills and knowledge to be effective in both roles. In their research they have carried out a review of existing practice and based on this, they give practical guidelines on curriculum design and workshop content for both AETs and AEA, including suggested activities to use in training sessions and make recommendations for best practice.

Thanks to their background as experienced researchers and practitioners in the field of Aviation English, Prof. Borowska and Prof. Petrashchuk are ideally placed to offer new insights into the training of Aviation English Trainers and Assessors. They have produced a concise, and accessible book which will be of great practical benefit to those working in the field.

Prof. James Minney
University of Southampton
April 2024

ACKNOWLEDGMENTS

Distinctive appreciation must go to all our trainees who trusted our practices and proved their effectiveness while training and testing operational personnel.

INTRODUCTORY NOTE

Language communication in aviation, particularly in aviation radiotelephony, has been internationally recognised a safety issue. In recent years language related human factors are involved in aviation accident investigations. The language component of flight operations has been studied in a variety of research projects and a growing number of publications concerning the use of Aviation English have appeared over the last few decades. However, most scientific findings focus mainly on aviation language features, aeronautical language communication, discourse studies as well as on Aviation English training and testing. Meanwhile training and testing of Aviation English Assessors (AEA) and Trainers (AET) and their requisite professional competences appear to be neglected and neither described nor discussed in detail and based mainly on the International Civil Aviation Organization (ICAO) recommendations.

The book addresses the importance of AEA and AET training in accordance with the new ICAO language requirements (ICAO 2010) so that language human factors could be viewed in synchrony with the other numerous factors that impact flight safety. The training in question is based on the aviation language construct approach that enables the training of Aviation English (also known as Aeronautical English) trainers and assessors in a competent harmony providing at the same time a high quality of their professionalism directed at minimising language related human errors during flights. Due to the fact that some Aviation English tests worldwide require the presence of an examiner who serves as an assessor at the same time, or in other words a rater, while others separate the roles of an examiner and an assessor, we use both terms *an assessor* and *a rater* interchangeably in this book, with the distinction that *an examiner* may not always perform the role of an assessor.

This volume consists of three chapters followed by conclusions and eight appendices. The first chapter gives a brief overview of ICAO regulations and European Union Aviation Safety Agency (EASA) enforcement directed towards the language proficiency level required for licencing pilots and air traffic controllers. Reflecting on research results, the second chapter provides necessary details about aviation language used in aeronautical communication as well as about the specificity of radiotelephony communication in a manner understandable for English language professionals

outside the field of aviation. Chapter Two also collects and describes key professional competences of AET and AEA so as potential candidates may verify if they are suitable for a given role. The last chapter of the book, Chapter Three, investigates the effectiveness of current training for AETs and AEAs by referring to the ICAO regulatory guidelines. Understanding and adhering to these standards is crucial for aviation businesses, organisations as well as individuals who want to operate legally and responsibly. Furthermore, Chapter Three verifies and recommends best practices for training of AETs and AEAs based on sample resources and a test currently in use. The presented materials are based on authors' research in the context conducted at the University of Warsaw in Poland (Aviation Communication Research Centre), as well as their experience on the AETs and AEAs' training support including the best practices also developed by the staff of the Aviation English Department of National Aviation University (Petrashchuk and Skipalska 2014a) and Aerolingua test provider and training centre in Kyiv, Ukraine, all updated by the authors of this book.

Finally, the list of references includes some web links useful for everyone interested in the subject. The book aims to constitute a source of reference for those who train AETs and AEAs to be, or for those who prefer self-study in this field. In brief, this book is for those English language professionals who think about or want to specialise in Aviation English training or assessment, aviation professionals who want to become Aviation English Trainers or Assessors, as well as experienced AETs who want to become raters or examiners before applying for professional accreditation; and also for every linguist, student or researcher who is interested in this field and prefers to have compact information in one place at the start. The book is supposed to support training programmes for AETs and AEAs.

LIST OF KEY ABBREVIATIONS

AE – Aviation English
AEA – Aviation English Assessor
AET – Aviation English Trainer
AFTN – Aeronautical Fixed Telecommunications Network
ATC – Air Traffic Control
ATCO – Air Traffic Controller
ATS – Air Traffic Services
CAA – Civil Aviation Authority
CPDLC – Controller Pilot Data Link Communications
Doc. – Document
E – Examiner
EASA – European Union Aviation Safety Agency
ELP – English Language Proficiency
ESP – English for Specific Purposes
FCL – Flight Crew Licensing
IATA – International Air Transport Association
ICAO – International Civil Aviation Organization
LP – Language Proficiency
LPA – Language Proficiency Assessment
LPR – Language Proficiency Requirements
LSP – Language for Specific/Special Purposes
R/T – radiotelephony
SARPS – International Standards and Recommended Practices
SME – subject matter expert
SP – standard phraseology
TEAP – Test of English for Aviation Personnel
TT – test-taker

CHAPTER ONE

REGULATIONS FOR LANGUAGE REQUIREMENTS IN AVIATION

1.1. Introduction

Aviation is a complex specialised technology-based area that covers a broad range of activities including *inter alia* esoteric analyses of compressible fluids, selling flight tickets, and getting a clearance for take-off. Accordingly, the language behaviour inherent to such activities is diverse, so it requires specialised uses of English that are collectively labelled as an aviation language:

> ***Aviation language***
> 3.2.6 The field covered by the term "aviation language" is relatively broad. It could include all of the language uses of many different professions (engineers, technicians, commercial staff, flight crews, etc.) within the aviation domain, which itself includes specializations such as aircraft construction, aircraft maintenance, aircraft operations, air traffic control, regulation, airport activities, passenger care, and flight crew operations.
> (ICAO 2010)

Analogically, the term *Aviation English* is known to be a combination of professional jargon and work-oriented uses of English which are predominant in the world of aviation. Much of what is being said applies to civil rather than military aviation. Civil aviation has international, cross-border and cross-linguistic tasks and must also allow for an internationally agreed code of communication across language boundaries. For reasons of greater convenience and, therefore increased safety, English has become the international agreed aviation language in 1951[1]. Nowadays Aviation English figures prominently in aerospace education and practice, national and international commerce, norms and standards, as well as in academic,

[1] ICAO Fifth Session (1951).

industrial, and government research and development. Gradually, its performance has been regulated by International Civil Aviation Organization (ICAO) on a global scale, exclusively in the area of radiotelephony communications.

It is worth pointing out that such kind of linguistic regulation is unique for aviation purposes and is not observed in any other areas of human professional activity. Furthermore, the English language proficiency of pilots and air traffic controllers is one of the assets required to find a position and to be employed. Strict language requirements are due to specific verbal interactions between pilots and controllers that take place via radio in a non-visual mode. In addition, numerous past aviation incidents proved that lack of comprehension between the operational interlocutors may cause a potential threat to flight safety. Thus, a language related human factor is known to be a contributor to many aviation events. In order to be more precise and differentiate from all other uses of Aviation English, it is common to use also the terms *Aeronautical English* (cf. Borowska 2017a: 65) or *Radiotelephony English* to refer to a type of language used in pilot-controller and pilot-pilot communications.

As the exchange of radio messages seems to be a safety-focused issue, real aeronautical communication is supposed to follow ICAO requirements and recommendations. In order to achieve such a goal, English language proficiency in aviation has also been regulated (ICAO 2010; EASA 2020). First, in order to meet the ICAO language requirements, a pilot or an air traffic controller must sit for an authorised test and demonstrate both listening and speaking skills at least at the "operational" level as described in the ICAO language proficiency Rating Scale[2] (ICAO 2010). Only then, a pilot or an air traffic controller is regarded to be safe on the frequency and is entitled to obtain a relevant entry in their professional licence. Second, the ICAO has already prescribed a test format as well as professional qualities of language examiners and raters (ICAO 2009b). Obviously, in order to support operational personnel's language performance, there is a need for both expert trainers and examiners who, based on their expertise, can assess if a candidate meets the necessary requirements. Third, aviation language experts are required to be familiar with the proper regulations in the field. Therefore, the main focus should be directed not only towards the correct test design, but also to appropriate training for teaching and testing staff in compliance with international requirements and recommendations.

[2] Part II: ICAO Language Proficiency Rating Scale (Attachment A to Annex 1, 2010, Doc. 9835 AN/453).

1.2. ICAO background

ICAO is the most known and prominent body that initiated language related human factor regulations in order to provide flight safety. Nowadays there is no doubt as to the veracity of the fact that flight safety might depend directly on the quality of verbal interaction of aircraft personnel and air traffic controllers. Therefore, new requirements on English language proficiency for radiotelephony have been set forth in the following regulatory ICAO documents:

- *International Standards and Recommended Practices (SARPS), Annex 1 to the Convention on International Civil Aviation: Personnel Licensing* (2001, 2018) specifies requirements for personnel licensing as well as their command of English language;
- *International Standards and Recommended Practices (SARPS), Annex 10 to the Convention on International Civil Aviation: Aeronautical Communications* (2001) where Volumes II and III cover two general categories of voice and data communications that serve international civil aviation. These are ground-ground communications between points on the ground and the air-ground communications between aircraft and points on the ground. The air-ground communication provides aircraft with all necessary information to conduct flights. An important element of the ground-ground communication is the aeronautical fixed telecommunications network (AFTN). Within the AFTN category, all significant ground points, which include airports, air traffic control centres, meteorological offices and the like, are joined by appropriate links designed to serve aircraft throughout all phases of flight;
- *International Standards and Recommended Practices (SARPS), Annex 11 to the Convention on International Civil Aviation*: *Air Traffic Services* (ATS) (2001) emphasises that air-ground communications should permit direct, rapid and continuous static-free two-way radiotelephony communication, whenever practicable, while those between ATS units should permit exchange of printed messages and, in the case of air traffic control units, direct voice communications between controllers;
- *Doc. 4444, ATM/501, Procedures for Air Navigation Services (PANS): Air Traffic Management* (2001, 2007b) defines radiotelephony rules using the standard phraseology on international air routes;
- *Doc. 9432 AN/925 Manual of Radiotelephony* (2007a) presents general operating procedures and ready examples of radiotelephony verbal exchanges in use;

- *Doc. 9835 AN/453 Manual on the Implementation of ICAO Language Proficiency Requirements* (2010) provides clear requirements for proper aeronautical communications and constitutes the main source of reference in the context;
- *Circular 318 AN/180 Language Testing Criteria for Global Harmonization* (2009b) addresses a detailed guidance on language testing needed to effectively implement the language proficiency requirements;
- *Circular 323 AN/185 Guidelines for Aviation English Training Programmes* (2009a) describes training design and trainers' training.

All the documents listed above provide the basis for better understanding the development of aviation language regulations in the last decades. Moreover, special attention should be given to the year 2008 since when the English Language Proficiency (ELP) has been an additional international requirement for all operational personnel active in aeronautical communication, who use a radio in an aviation related environment. In this way, the ICAO, by issuing its recommendations, responded to investigation results of numerous aviation accidents and incidents where verbal communication played a significant contributing role.

Due to the fact that, in general, the ICAO phraseology, as a prescribed standard, does not cover all possible aeronautical situations and events, the ICAO ELP requirements were imposed to facilitate adequate communication (airborne and ground based) between radio stations in such cases. Thus, the importance of ability to communicate during non-routine situations, urgencies and emergencies that may occur at any stage of flight has been emphasised.

The ICAO ELP requirements were introduced through Doc. 9835 in 2004 (first edition) and in 2010 (second edition). The so-called "new" language requirements have been recommended to be implemented by all ICAO member states in their national legislation. As many ICAO states were not ready to meet the obligation in the suggested period of time, i.e. the year 2008, the personnel certification date was extended to March 2011 by the Assembly Resolution A36-11 in 2007.

Furthermore, the ELP required for licencing purposes is presented in Chapter 4 of the aforementioned document (ICAO 2010). Therefore, the ICAO stipulates that operating at an international level necessitates basic English competence for pilots and controllers. For six language skills (pronunciation, structure, vocabulary, fluency, comprehension and interactions) the holistic descriptors have been defined which describe competence levels ranging from a pre-elementary (level 1) to an expert (level 6) level (see ICAO Rating Scale in Appendix A). Importantly, the

level 4 is defined as "operational", i.e. the minimum level of proficiency required for licensure. This level as a prerequisite for licensing purposes was introduced by the ICAO and was supposed to be tested by specialised Aviation English tests. However, the ICAO advised all its member states to implement the new regulation, but did not offer any tests to measure the proficiency in question. Therefore, since 2008, the national Civil Aviation Authorities (CAA) are responsible for measuring its operational personnel's ELP according to the ICAO requirements and recommendations. Consequently, between the years 2008 and 2013, the language requirements for aviation operational personnel were successfully implemented in Europe and in the majority of ICAO member states, largely by national regulations. Transitory measures were in effect in 2013.

In addition to language proficiency requirements for operational personnel, the ICAO has also prescribed qualities and profiles of Aviation English trainers (ICAO 2009a: 2.2.) and assessors (ICAO 2009b: 6.2.) as well as basic standards for their training (ICAO 2009a, 2009b). These criteria will be referred to throughout this volume.

1.3. EASA enforcement

Based on the ICAO approach, in 2012, the European Union Aviation Safety Agency (EASA) issued a document entitled *Easy Access Rules (EAR) for Aircrew (Regulation (EU) No. 1178/2011)*[3] that includes the applicable technical requirements and administrative procedures related to civil aviation aircrew, displayed in a consolidated, easy-to-read format with advanced navigation features through links and bookmarks (EASA 2023). Since then language proficiency (not only English language proficiency) has also become a European regulated matter that has had an impact on the existing national aviation language legislations. In this way, the EASA has contributed to language proficiency (LP) regulations by elaborating more details that refer to the language related human factor. The new aeronautical language requirements are well articulated separately for pilots and for controllers therein.

Language requirements for pilots are incorporated in *Annex I* to the *Easy Access Rules (EAR) for Aircrew Regulation (EU 1178/2011)*. It is also known as *Part-FCL* (Flight Crew Licensing). Significantly, Part-FCL.055 is a part of the document which defines LP requirements based on *ICAO Doc. 9835*. However, the EASA LP rules concern all national languages, not only English. Additionally, *Part-FCL.055* defines general provisions

[3] The document has been updated in 2023.

regarding LP level for flight crew members:

> General. Aeroplane, helicopter, powered-lift and airship pilots required to use the radio telephone shall not exercise the privileges of their licences and ratings unless they have a language proficiency endorsement on their licence in either English or the language used for radio communications involved in the flight. The endorsement shall indicate the language, the proficiency level and the validity date, and it shall be obtained in accordance with a procedure established by a competent authority.
>
> (Regulation EU 2020/359)

With the introduction of *Commission Regulation (EU) 2015/340 of 20 February 2015* laying down technical requirements and administrative procedures relating to air traffic controllers' licences and certificates, the ELP requirements are defined for air traffic controllers under the *Annex 1 PART ATCO*. Preamble 7 to the regulation emphasises the following:

> Poor communication is often a significant contributing factor in incidents and accidents. Therefore, detailed language proficiency requirements for air traffic controllers should be laid down. Those requirements are based on the requirements adopted by the International Civil Aviation Organization (ICAO) and provide a means of enforcing these internationally accepted standards. The principles of non-discrimination, transparency and proportionality are upheld with regard to language proficiency requirements in order to encourage free movement of workers, while ensuring safety. The validity of language proficiency endorsement should be proportionate to the proficiency level as determined in this Regulation.

At this point, it should be emphasised that all the European language regulations are based on the ICAO quality characteristics of language proficiency which point to the following basic assumptions:

> The applicant for a language proficiency endorsement shall demonstrate … at least an operational level of language proficiency both in the use of phraseologies and plain language to an assessor certified by a competent authority or a language-testing body approved by a competent authority as applicable. To do so, the applicant shall demonstrate the ability to: (1) communicate effectively in voice-only and in face-to-face situations; (2) communicate on common and work-related topics with accuracy and clarity; (3) use appropriate communicative strategies to exchange messages and to recognise and resolve misunderstandings in a general or work-related context; (4) handle successfully the linguistic challenges presented by a complication or unexpected turn of events which occurs within the context

> of a routine work situation or communicative task with which they are otherwise familiar; and (5) use a dialect or accent which is intelligible to the aeronautical community.
>
> (ICAO 2010: 4.5)

In order to perform and gain a reliable expertise, there is a need for specialised language testing providers. They are called language testing bodies (EASA 2020) which means they are legal entities responsible for their delegated functions: "The competent authority may use its own resources in developing or conducting the language proficiency assessment, or may delegate this task to language testing bodies" (EASA 2020). Both ICAO and EASA regulations focus on language testing procedures in order to propose their recommendations that aim to provide some universal quality of the assessment worldwide. Although there is neither a single ready-made test, nor a testing system available for all ICAO state members, local Civil Aviation Authorities (CAA) are supposed to create their own testing tools or use those available on the market. Each Aviation English proficiency test should meet the aforementioned requirements and be authorised by an appropriate national body. Additionally, it is a national CAA that should decide at its discretion which of the worldwide available language test results they will accept for licensing purposes. Unfortunately, it may lead to a situation when a test valid in a given country is not accepted by another ICAO member state where the licence is issued. To this end, the demonstration of language proficiency and the use of English for licence holders shall be done through a method of assessment established by the competent authority and approved by a given national CAA.

While efforts to increase aviation safety by stipulating minimum levels of English competency are clearly welcome, two important issues have not so far been addressed sufficiently neither in the relevant literature nor in the regulations. The first one relates to assessors or raters who provide decisions on a proper language proficiency level of an individual pilot or an air traffic controller. In a fundamental overview, the ICAO suggests some basic requirements for qualification training for raters and emphasises that it should be recurrent once a year (ICAO 2010: 6.3.8.13). The question that arises at this point is about the relevant features of trainers' training programmes and the trainers of such raters. The other issue concerns the nature of Aviation English use in the workplace by pilots and controllers or, to be more precise, the Aviation English discourse characteristics specific for aeronautical contexts. Both aspects will be elaborated on here further.

Last but not least is another regulatory document, namely *European Commission Regulation (EU) No. 1178/2011 of 3 November 2011* that lays down technical requirements and administrative procedures related to civil

aviation aircrew pursuant to *Regulation (EC) No 216/2008 of the European Parliament and of the Council*. Part FCL.055 includes numerous provisions thereof such as obtaining a language certificate:

> The applicant for a language proficiency endorsement shall demonstrate at least an operational level (Level 4) of language proficiency both in the use of phraseologies and plain language.
> Except for pilots who have demonstrated language proficiency at an expert Level 6 the language proficiency endorsement shall be re-evaluated every:
> (1) 4 years, if the level demonstrated is operational level (Level 4); or
> (2) 6 years, if the level demonstrated is extended level (Level 5).
> (Specific requirements for holders of an instrument rating (IR). Without prejudice to the paragraphs above, holders of an IR shall have demonstrated the ability to use the English language at a level that allows them to: (1) understand all the information relevant to the accomplishment of all phases of a flight, including flight preparation; (2) use radio telephony in all phases of flight, including emergency situations; (3) communicate with other crew members during all phases of flight, including flight preparation.
> The demonstration of language proficiency and of the use of English for IR holders shall be done through a method of assessment established by the competent authority.

The LP assessment requirements can be found in part *AMC1, FCL.055* (EASA 2020), where basic information about the process as well as requirements for potential assessors are provided. It is worth mentioning that all language training staff, including aeronautical language instructors, are supposed to be familiar with the provisions that refer to such aspects as general methods of assessment that are "designed to reflect a range of tasks undertaken by pilots but with specific focus on language rather than operational procedures", the applicant's ability to: "(1) communicate effectively using standard R/T phraseology; (2) deliver and understand messages in plain language in both usual and unusual situations that necessitate departure from standard R/T phraseology", the recommended structure of assessment:

> (c) The assessment may be subdivided into three elements, as follows: (1) listening: assessment of comprehension; (2) speaking: assessment of pronunciation, fluency, structure and vocabulary; (3) interaction.
> (d) The three elements mentioned above may be combined and they can be covered by using a wide variety of means or technologies.

basic assessment requirements:

(1) The assessment should determine the ability of the applicant to use both: (i) standard R/T phraseology; (ii) plain language, in situations when standardised phraseology cannot serve an intended transmission.
(2) The assessment should include: (i) voice-only and face-to-face situations; (ii) common, concrete and work-related topics for pilots.
(3) The applicants should demonstrate their linguistic ability in dealing with an unexpected turn of events, and in solving apparent misunderstandings.
(4) The assessment should determine the applicant's speaking and listening abilities. Indirect assessments, of grammatical knowledge, reading and writing, are not appropriate.
(5) The assessment should determine the language skills of the applicant in the following areas:
(i) pronunciation: (A) the extent to which the pronunciation, stress, rhythm and intonation are influenced by the applicant's first language or national variations; (B) how much they interfere with ease of understanding.
(ii) structure: (A) the ability of the applicant to use both basic and complex grammatical structures; (B) the extent to which the applicant's errors interfere with the meaning.
(iii) vocabulary: (A) the range and accuracy of the vocabulary used; (B) the ability of the applicant to paraphrase successfully when lacking vocabulary.
(iv) fluency: (A) tempo; (B) hesitancy; (C) rehearsed versus spontaneous speech; (D) use of discourse markers and connectors.
(v) comprehension: (A) on common, concrete and work-related topics; (B) when confronted with a linguistic or situational complication or an unexpected turn of events.
(vi) interactions: (A) quality of response (immediate, appropriate, and informative); (B) the ability to initiate and maintain exchanges: (a) on common, concrete and work-related topics; (b) when dealing with an unexpected turn of events. (C) the ability to deal with apparent misunderstandings by checking, confirming or clarifying.

as well as the requirements for Aviation English assessors:

(m) It is essential that the persons responsible for language proficiency assessment ('assessors') are suitably trained and qualified. They should be either aviation specialists (for example current or former flight crew members or air traffic controllers), or language specialists with additional aviation related training. An alternative approach would be to form an assessment team consisting of an operational expert and a language expert.
(1) The assessors should be trained on the specific requirements of the assessment.
(2) The assessors should not test applicants to whom they have given language training.

However, it should be emphasised that the mixture of international, European and national legislation has caused a complex legal situation. Consequently, in most countries the services of Aviation English language training and assessment have been delegated to the abovementioned language testing bodies which are authorised by the national CAA (see *Criteria for the Acceptability of Language – Testing Bodies, FCL.055*, EASA 2020).

In order to meet the aforementioned legal requirements, it is crucial to provide both teaching and testing staff with appropriate training to develop their competencies and skills needed to teach Aviation English as well as to assess the LP in accordance with international ICAO recommendations. The following chapters focus on characteristics of ELP construct which should be viewed as the basis for communication competences of aviation personnel as well as, especially relevant to this book, for specific competences of the English language trainers and testing team members.

CHAPTER TWO

COMPETENCES TO MEET LANGUAGE REQUIREMENTS IN AVIATION

This chapter focuses on specific features of verbal communication in the aviation context, on competences of pilots and controllers who are supposed to maintain safe radiotelephony exchanges during all stages of flight that in turn lead to the competences of all actors responsible for aviation language training and assessing the language proficiency in accordance with the ICAO recommendations and criteria. It should be emphasised that the concept of *competency* is closely linked to education and, therefore, the competency paradigm can be applied to both English training as well as to language proficiency assessment (LPA) for the licensing purposes of pilots and air traffic controllers.

Following ICAO (2009a: 2.2.2) recommendations, we apply a basic definition of *competence* provided by *Longman Dictionary of Contemporary English Online* (2023): "a skill needed to do a particular job". It is also possible to find the synonym *competency* used in a similar context by the International Air Transport Association (IATA) (2023: 4): "the ability of an individual to do a job properly by having the appropriate knowledge, skills, attitude and behaviors. Competency is a dimension of human performance that is used to reliably predict successful performance on the job". It is usually manifested and observed through human behaviour that mobilises the relevant knowledge, skills and attitudes in order to carry out activities or tasks under specified conditions (ibid.).

Another approach to the concept of *competence* related to aviation language requirements emphasises multidimensional as well as twofold nature of Aviation English (AE) training and assessment processes. Such multidimensional aspects of competence cover its linguistic, cultural, technological and professional components. Its twofold nature is viewed through the traditional dichotomy of knowledge and skills. However, the departure point for a linguistic competence should be a language proficiency construct expected to be demonstrated by the licensed operational personnel at all stages of flight:

> 2.3.3.1 All the competences needed for language proficiency are "constructs" of mental and physical abilities and they are not directly observable. They can be inferred in individuals only by observing the language performance of those individuals. In performance, other factors may impact language proficiency, for example, levels of attention, mood, stress, verbal working memory and verbal processing abilities. These factors will, in turn, influence levels of performance in the areas of fluency, comprehension and interaction.
>
> (ICAO 2010: 2.3.3.1)

Thus, the competences of aviation personnel, Aviation English Trainers (AET) and Assessors (AEA) presented in the following subchapters, are viewed on the one hand, as one whole, based on the language construct proposed by the ICAO language proficiency requirements (LPR) and, on the other hand, as multicomponent models presenting the variety of features required to meet the language related safety issues.

2.1. Language competence of operational personnel

The language competence required for licensing of pilots and air traffic controllers is better understood if we are familiar with the aeronautical verbal communication mechanisms, namely the discourse rules that the operational personnel apply during all phases of flight as well as a language or a code used for such purposes. The ICAO points to the following fact: "If the aeronautical community is considered as one to which an applicant gains admission through the demonstration of any number of competencies determined to be important to the community, then language proficiency is simply another competency" (ICAO 2010: 4.5.4).

Among numerous approaches to *language competence* in literature, such as its distinction into the dichotomy of performance (i.e. surface structures) and competence initially suggested by de Saussure (in Joseph 2013) and further discussed *inter alia* by Hymes (1972), Halliday and Hasan (1989), Chomsky (2002), Hutchinson and Waters' (1996: 27) definition seems to be the most relevant to aeronautical communication. They not only refer to language competence through the prism of English for Specific Purposes (ESP) and suggest "to take a much broader view, but the basic distinction is still valid", but they also insist on describing what specialists do with language (i.e. performance), and equally what "enables them to do it" (Hutchinson and Waters 1981). Consequently, in order to understand what kind of language competence of operational personnel is required to fulfil their professional tasks, we have to understand first the type of

language that is used for the purposes of aeronautical communication, and then the prescribed discourse mechanism (cf. Mell 2004).

2.1.1. Nature of English used in aviation contexts

In general, Aviation English trainers and assessors are supposed to be familiar with functions English plays in various aviation contexts with particular attention being paid to English use for radiotelephony purposes. The ICAO has defined the term *aviation language* as a broad concept (see Chapter One above), not restricted only to pilot-controller and pilot-pilot communications. According to Ragan (1997), there are at least five major content areas that are readily identified under the umbrella of Aviation English (AE) use: (1) flight operation and air traffic control; (2) technology airframe and powerplant, mechanics, avionics, aircraft manufacture, flight line operations; (3) engineering, aeronautical engineering, aerospace engineering; (4) business/charter airline services, fixed based operations, airport management, marketing; (5) education/training, flight maintenance, engineering, business administration. Wang (2008: 151) points to the fact that nowadays the term *Aviation English* refers to pilots, air traffic controllers as well as to English for any aviation or aeronautics purposes. Moreover, Borowska (2017a: 64–65, 2020b) goes forward and reserves this term as a superior one, namely "a special language for aviation purposes that is realised in the different forms of sublanguages or tools[1], constituting its subsets based on particular aviation domains". Further, Tosqui-Lucks and de Silva (2020: 9) emphasise that research terminology is particularly important when describing research concepts:

> Although we are aware that changes take time, and that many authors have been using *aviation English* meaning its restricted scope that we consider *aeronautical English*, probably influenced by ICAO documents, we insist that the use of different terms to refer to two different concepts, especially when one encompasses the other, has important consequences (…).

Therefore, before starting their training, the main task for AET and AEA is to understand context terminology systematisation and use the terms accordingly.

First of all, English used in aviation contexts should be differentiated from general English, also called a natural language. As a matter of fact, a natural language is a form of language which emerged as a result of the

[1] By *tools* we mean linguistic tools that cannot be classified as full languages, e.g. artificial languages (see Borowska 2017a: 80).

historical and cultural development of a given nation, usually both in oral and written form. According to Lukszyn (2002), the most distinctive features of general languages are as follows:

- stylistic diversity – general language appears in several functional variants, both oral and written. These include colloquial language, official language, literary language, the language of science, etc.;
- normativeness – general language is recorded in normative grammar rules and dictionaries and is popularised by administration, media and schools;
- formality – general language is used in official documents and constitutes a foundation for a special language which employs its phonemics, phonetics and grammar.

We can only attribute the last feature out of these mentioned above – formality, to specialised languages, including Aviation English.

Secondly, it looks like, on the general basis, any specialist language can function independently of a corresponding natural language. Thus, in our context, each AET and AEA should be, first of all, a fluent user of general English. The next step required in the field is the familiarity with the concept of a Language for Specific Purposes (LSP). In simplest terms, it is defined as a conventionalised semiotic code based on the natural language which supports communication between specialists working in a particular context (Lukszyn 2002). Thus, any language used for the purposes of specialist communication with regard to particular specialist subjects can be characterised as (a) an instrument of professional work, (b) an instrument of professional education, and additionally as (c) an indicator of the level of civilisation of a given national community that refers to the development of such community (ibid.).

Following Cabré (1999: 65), when investigating all special languages, there are some basic criteria which should be considered. The following ones also correspond to Aviation English analysis:

- specialised knowledge does not constitute a part of the language user's general knowledge; it has been acquired as a result of a specific learning process;
- professionals who possess specialised knowledge are users of the special language (both written and spoken);
- special language communication usually occurs in formal (professional) situations;
- special language is characterised by a number of features which may be divided into language-based features and text-based features;
- there are several possible variations of any special language subject to the communication situation and usage;