



TECHNICAL GUIDANCE MATERIAL

for ICAO Language Proficiency testing

SUBJECT: Technical guidance for Language Proficiency Rating testing and oversights

EFFECTIVE DATE: 2020-03-16

APPLICABILITY

This document is applicable to:

- a) staff associated with South African Aviation Training Organizations and who are responsible for testing related to ICAO Language Proficiency Ratings,
- b) SACAA inspectors involved with the surveillance of standards related to ICAO Language Proficiency Rating training and testing,
- c) SACAA inspectors involved with the surveillance of Aviation Training Organizations and
- d) SACAA PEL departmental management.

PURPOSE

The purpose of this document is to:

- a) Provide technical guidance to persons involved with the development and implementation of ICAO Language Proficiency Rating tests,
- b) Expand on the procedures regarding the appointment of Training Organization staff who are responsible for the testing of ICAO Language Proficiency Ratings and
- c) Serve as a refresher guide to SACAA inspectors doing surveillance of ICAO Language Proficiency Rating training and testing at Training Organizations.

REQUIREMENTS

The technical guidance in this document is applicable to the following parties:

- a) SACAA AOs responsible for doing surveillance (oversight) on Language LPR testing,
- b) ATO personnel responsible for the design of LPR tests and
- c) ATO personnel responsible for conducting LPR tests

1. REFERENCE:

- i. Civil Aviation Regulations, 2011 as amended. Part 61, 63, 65, 68, 69, 71/101, 141 and
- ii. Appendix 1.5.1 to Document SA-CATS 61, ICAO English proficiency rating scale
- iii. Appendix 1.5.2 to Document SA-CATS 61, ICAO Aviation English qualifications
- iv. ICAO Annex 1 to the Convention on International Civil Aviation. Personnel Licensing.
- v. ICAO Doc 9379. Manual of Procedures for Establishment and Management of a State's Personnel Licensing System.
- vi. ICAO Doc 9432. Manual of Radiotelephony.
- vii. ICAO Doc 9835. Manual on the Implementation of ICAO Language Proficiency Requirements
- viii. ICAO Circular 323. Guidelines for Aviation English Training Programmes. 2009. ISBN 978-92-9231-403-3.
- ix. ICAO LPR web page: <https://www.icao.int/safety/lpr/Pages/Language-Proficiency-Requirements.aspx>

2. TERMS AND ABBREVIATIONS:

TERM	DEFINITION
Accent	A distinctive pronunciation of a language which is usually associated with a geographical region (for first language speakers) or with the phonological influence of another mother tongue (for second or foreign language speakers). All speakers of all languages have an accent
Descriptor	A brief description accompanying a band on a rating scale, which summarizes the degree of proficiency or type of performance expected of a candidate to achieve that particular score. The band may contain several descriptors.
Dialect	A distinctive variety of a language, usually associated with social or geographical distinctions, which is characterized by differences in accent, vocabulary and grammar with regard to other varieties of the same language.
Language proficiency skills	The knowledge and abilities which impact on the capacity of a given individual to communicate spontaneously, accurately, intelligibly, meaningfully and appropriately in a given language. Note. - Six individual skills are identified in the ICAO Rating Scale.
Plain language	The spontaneous, creative and non-coded use of a given natural language. <i>Note 1.— Plain language shall be used “only when standardized phraseology cannot serve an intended transmission” (Annex 10, Volume II, 5.1.1.1).</i>
Rate	To assign a score or mark to a candidate's performance in a test using a subjective assessment.
Rating scale	A scale consisting of several ranked categories used for making judgements of performance. They are typically accompanied by band descriptors which make their interpretation clear.

ABBREVIATION	DESCRIPTION
AO	Authorised officer
ATC	Air Traffic Controller
ATO	Aviation Training Organization
ATPL	Airline Transport Pilot Licence
CPL	Commercial Pilot Licence
CARs	Civil Aviation Regulations
DCA	Director of Civil Aviation
ELP	English Language Proficiency
GED	General Educational Development
ICAO	International Civil Aviation Organisation
LPR	Language proficiency requirement
N/A	Not applicable
OPI	Oral Proficiency Interview
PEL inspector (ATC)	PEL inspector (Air Traffic Controllers)
PEL inspector (ATO)	PEL inspector (Aviation Training Organization)

PEL inspector (P/FSTD)	PEL inspector (Pilot / Flight Simulation Training Device)
POI	Principal Operations Inspector
PPL	Private Pilot Licence
RPL	Remote Pilot Licence
SACAA	South African Civil Aviation Authority
SME	Subject matter expert
SPL	Student Pilot Licence
TPM	Training and procedures manual
TSO	Testing Standards Officer

3. GENERAL

3.1 Background to the ICAO Language Proficiency Requirements

ICAO regards the ability to communicate effectively with spoken language as a crucial safety factor. In this context, "Spoken" refers specifically to listening and speaking (i.e. verbal communication) skills. The ICAO Assembly formulated a resolution (Assembly Resolution A32-16) in 1998. This was done after a series of accidents and incidents where pilots' and air traffic controllers' inability to communicate properly was a large factor.

The background to strengthened ICAO language proficiency requirements is best explained by the organization itself (ICAO Doc 9835, 2010: 1-1):

"Over 800 people lost their lives in three major accidents (one collision on the ground, one accident involving fuel exhaustion and one controlled flight into terrain). In each of these seemingly different types of accidents, accident investigators found a common contributing element: insufficient English language proficiency on the part of the flight crew or a controller had played a contributing role in the chain of events leading to the accident. In addition to these high-profile accidents, multiple incidents and near misses are reported annually as a result of language problems, instigating a review of communication procedures and standards worldwide. Such concern was heightened after a 1996 mid-air collision in which 349 passengers and crew members were killed in an accident in which insufficient English language proficiency played a contributing role."

ICAO explains that language use can endanger flight safety in 3 ways (ICAO Doc 9835, 2010: 1-1):

- i. By the incorrect or non-existent use of standardized phraseologies,
- ii. By deficiencies in plain language proficiency and
- iii. By the combined use of several languages in the same airspace environment.

While ICAO's emphasis in terms of LPR is limited to improving aeronautical radiotelephony communications, an additional interesting, easily overlooked factor is that miscommunication by flight crew members on the flight deck has also played a role in endangering flight safety. ICAO (ICAO Doc 9835, 2010: 1-2) states that: *"By meeting language proficiency requirements, flight crews, especially multi-national flight crews, will have the added safety benefit of better CRM."*

3.2 The role of language in aviation

An academic reference book states: *"The limits of my language mean the limits of my world"* (Ferreira, Teaching Language, 2009). This simple phrase neatly sums up the central place that language, thinking and communication assume in our lives. Although ICAO LPR focusses exclusively on aeronautical radiotelephony communications, it acknowledges the complexity of language learning and the broad scope of language in the aviation industry.

Language is complicated, because it is closely linked with our thinking processes and our understanding of subject matter. A Time-Life reference book, titled "How we learn" explains this complexity: *"The ability to speak any language requires an impressive capacity for abstract thought."* (Time-Life International (Nederland) B.V. 1976: 120).

Not only is language in general therefore a complex activity, but in aviation it is intertwined with human linguistical and communication demands, highly specialized technical terminology, standard phraseology, radiotelephony (and the skill of using of radio equipment), prescribed cockpit procedures, airspace operation and air traffic control procedures and complex, abstract cognitive thought processes. These factors and other ones are reasons why an ICAO LPR test has to be designed and planned properly. Fundamentally, all these aspects are related to language use, but an LPR test should not test these elements as such, but rather isolate the underlying communication and language proficiency and test this.

4. ICAO LANGUAGE PROFICIENCY TESTING

4.1 Overview

ICAO explains that *"Language proficiency is not merely knowledge of a set of grammar rules, vocabulary and ways of pronouncing sounds. It is a complex interaction of that knowledge with a number of skills and abilities"* (ICAO Doc 9835, 2010: 2-1).

Doc 9835 explains that ICAO Language Proficiency Requirements comprise the following:

- a) A set of holistic descriptors and
- b) Obtaining at least Operational Level 4 of the ICAO LPR Rating Scale

While five holistic descriptors state the characteristics of proficient speakers and the context for communications, the Rating Scale describes six identified discrete features of language use. *"Holistic"* refers to the communicating person as a 'whole', in contrast to the descriptors in the Rating Scale which instead examine individual, discrete features of language use." (ICAO 9835, 2010: 4-5). The LPR Rating Scale is basically as a guide to good judgement.

ICAO sees the complexity of language proficiency as a hierarchy, as seen in the diagram below (Doc 9835: 2010: 2-10). Each of the blocks refers to one of the discrete language features. More is explained about each feature later.

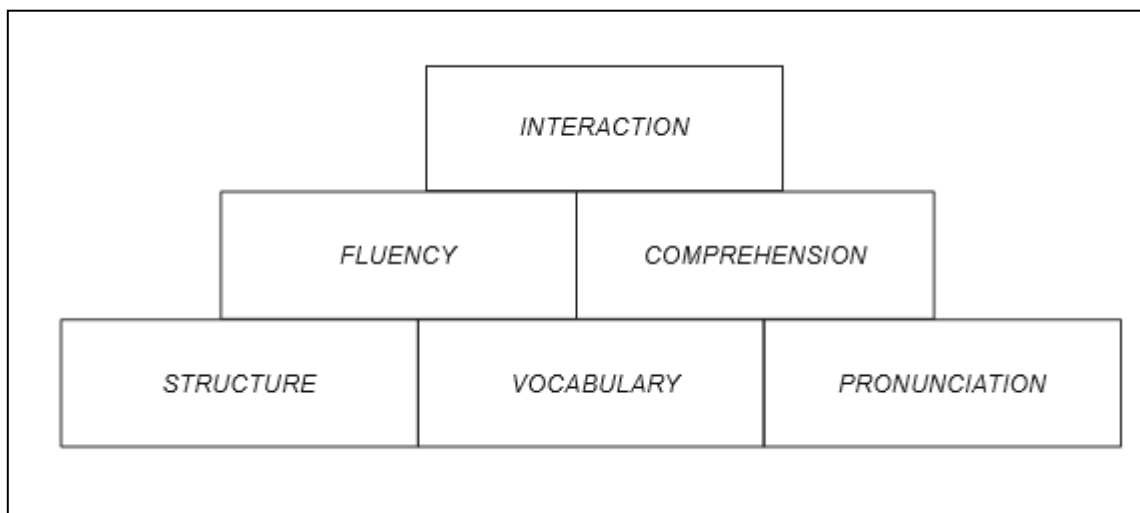


Figure 1: ICAO model of language proficiency skills as a pyramid structure

4.2 Aviation language

"The sole object of ICAO language proficiency requirements is aeronautical radiotelephony communications, a specialized subcategory of aviation language corresponding to a limited portion of the language uses of only two aviation professions — controllers and flight crews. It includes ICAO standardized phraseology and the use of plain language."

The standardized words and phrases of ICAO phraseology approved for radiotelephony communications have been developed over years and represent a true sub-language as defined above.” (ICAO Doc 9835, 2010: 3-2)

What are the characteristics of aviation language? ICAO states that Aeronautical radiotelephony communications ...

- c) don't rely on reading and writing, but require speaking and listening skills
- d) are extremely context-dependent (they depend on specific technical knowledge)
- e) relate to aviation matters such as aircraft, navigation, air traffic control procedures and equipment
- f) lack visual and movement input and lean more heavily on clear and accurate speech (normal non-verbal language cues are absent)
- g) have a spatial separation of the speakers, resulting in an absence of common points of reference and require a lot more information to be exchanged in order to establish common ground
- h) allow only one speaker to speak at a time, thereby preventing the use of communication tools remarks or comments that may help to support understanding
- i) often take place in poor acoustic conditions
- j) are technically restricted by a narrow bandwidth which can obscure some sounds (like "s" and "f")
- k) have interference from background noises (like static interference or from cockpit equipment)
are complicated by techniques like Imperfect microphone technique on the part of speakers (like prematurely releasing a PTT switch and in this manner cutting a message short).

As mentioned above, ICAO has subdivided aeronautical radiotelephony language proficiency into two main requirements - satisfying a set of holistic descriptors and achieving at least operational level proficiency on a dedicated rating scale. This is explained below.

4.3 The holistic criteria

For the sake of completeness, the enhanced explanation of the ICAO holistic descriptors has been extracted from ICAO Doc 9835 (2010: 4-5 to 4-7) and is duplicated below:

a) Proficient speakers shall communicate effectively in voice-only (telephone/radiotelephone) and in face-to-face situations.

Radiotelephony communications lack the facial cues, body language and listening cues found in usual face-to-face situations. Communications without such cues are considered to be more difficult and challenging, requiring a higher degree of language proficiency than face-to-face interactions. In addition, other features of radiotelephony communications make it a unique kind of communicative event. For example, the sound quality may be poor, with distracting sounds and the communicative workload of the air traffic controller or a pilot may be heavy, with a corresponding need for efficiency and brevity. This holistic descriptor draws attention to the need for training and testing to provide voice-only settings to exercise or demonstrate language proficiency, as well as face-to-face settings that allow broader uses of language.

b) Proficient speakers shall communicate on common, concrete and work-related topics with accuracy and clarity.

Context is an important consideration in communications, and an individual's language proficiency may vary in different contexts. This holistic descriptor limits the domain of the communicative requirements to work-related topics; that is, air traffic controllers and pilots are expected to be able to communicate about issues in their field of professional practice. Language proficiency should not be limited to standardized phraseology and should range across a relatively broad area of work-related communicative domains. Appendix B provides a non-exhaustive list of topics and domains appropriate to the work-related requirements of pilot and air traffic controller communications. It

is meant as a guide to curriculum development. The assessment of radiotelephony communications should not be limited solely to those topics.

- c) **Proficient speakers shall use appropriate communicative strategies to exchange messages and to recognize and resolve misunderstandings (e.g. to check, confirm, or clarify information) in a general or work-related context.**

Linguists have identified strategic competence as an important part of language proficiency (see Chapter 2, 2.3.2.4, for a definition of strategic competence). One aspect of strategic competence important to air traffic controllers and flight crews is the ability to recognize and resolve potential misunderstandings, e.g. having strategies to check for comprehension in a meaningful way, such as asking for a readback. Equally important is the ability to rephrase or paraphrase a message when it is apparent that a message was not understood. Sometimes the phraseology "Say again" should be understood as a request for clarification rather than repetition. Air traffic controllers and flight crews should understand that silence does not always indicate comprehension. On the part of native-speaking air traffic controllers and flight crews, strategic competence can include an appreciation of the threats presented by cross-cultural communications and a sensitivity to strategies to confirm comprehension.

- d) **Proficient speakers shall handle successfully and with relative ease the linguistic challenges presented by a complication or unexpected turn of events that occurs within the context of a routine work situation or communicative task with which they are otherwise familiar.**

One of the more challenging events in all communications, including those involving the use of a second language, is when the unexpected happens. Human Factors experts have emphasized the threat of letting our expectations hinder our interpretation of reality. Sometimes, a complication or an unexpected event can lead to a communication breakdown. It is important for air traffic controllers and flight crews to have sufficient language proficiency and the strategic skills to manage a dialogue through any unexpected event. It is the nature of the work of controllers and pilots to adhere to strictly defined procedures and regulations and yet to be able, when confronted with a new situation, to demonstrate substantial flexibility in their response. This holistic descriptor emphasizes the need for language skills practised and demonstrated in this context.

- e) **Proficient speakers shall use a dialect or accent which is intelligible to the aeronautical community.**

A first and natural response to this holistic descriptor is to inquire which dialects or accents would be considered intelligible. One answer is to consider how this issue has traditionally been handled among native-speaker controller populations. In the United Kingdom, for instance, a great variety of regional dialects and differences exist. Air traffic control applicants and trainees are informally screened for use of a dialect appropriate to the international aviation context. A determination of what constitutes a strong regional dialect or marked accent is based on the extensive experience and good judgement of the trainer or assessor. When an individual demonstrates a strong regional dialect or marked accent, one determined to be easily understood only by those most familiar with the dialect, that individual is counselled to use a dialect more widely acceptable or is provided with additional elocution or speech training.

4.4 Overview of the ICAO Language proficiency rating scale

For the sake of completeness, relevant aspects have been selected and extracted from ICAO Doc 9835 (2010: 4-7 to 4-8) and are duplicated below. This information is intended to serve as an overview of the ICAO Language Proficiency Rating Scale:

From ICAO Doc 9835, paragraph 4.5.5

The scope and focus of the ICAO Language Proficiency Rating Scale are specific and unique in several important ways:

- a) the ICAO Rating Scale addresses only spoken language (speaking and listening); it does not address reading and writing skills;
- b) the ICAO Rating Scale has a distinct aeronautical radiotelephony focus; it addresses the use of language in a work-related aviation context, voice-only communications, using strategic competences for safe communications in case of complications or unexpected turn of events, and emphasizing intelligibility in an international community of users;
- c) ICAO Operational Level 4 does not target high degrees of grammatical correctness or native-like pronunciation. Grammar, syntax, vocabulary and pronunciation are judged primarily to the extent that they do not interfere with effective oral communication; and
- d) the final rating is not the average or aggregate of the ratings in each of the six ICAO language proficiency skills but the lowest of these six ratings.

From ICAO Doc 9835, paragraph 4.5.11

It is assumed that anyone awarded a particular rating level demonstrates proficiency better than the descriptors contained in each level below. Failure to comply with descriptors in one category in one level indicates that the next lower proficiency level should be awarded. A person's overall proficiency rating is determined by the lowest rating assigned in any of the language proficiency skills of the rating scale. This is essential because the Operational Level 4 descriptors were developed as the safest minimum proficiency skill level for aeronautical radiotelephony communications. A lower score on any one feature indicates inadequate proficiency; for example, pilots with Operational Level 4 ratings in all areas except pronunciation may not be understood by the air traffic controllers with whom they must communicate. In summary, an individual must demonstrate proficiency at Level 4 in all categories in order to receive a Level 4 rating.

4.5 The ICAO Language proficiency rating scale

The ICAO Language proficiency rating scale may be found at the end of this document. For the sake of refreshing the TGM user's perspective of the minimum operational requirement, the following enhanced explanation of the rating scale descriptors for Operational level 4 has been extracted from ICAO Doc 9835 (2010: 4-9 to 4-14) and is duplicated below in condensed table form:

Discrete language feature	General description	Explanation of Operational level (4) rating scale descriptors
Pronunciation	The six levels of pronunciation descriptors are applicable at all levels to native and non-native speakers. This implies that native English speakers may demonstrate Elementary Level 2 proficiency if their regional dialect is so localized that it is not readily understood by those outside of that particular region. On the other hand, speakers whose speech patterns clearly identify them as non-native speakers (having a so-called "accent") may demonstrate Expert Level 6 proficiency, as long as this meets the criterion of "almost never" interfering with ease of understanding.	Operational Level 4 speakers demonstrate a marked accent, or localized regional variety of English. Occasionally, a proficient listener may have to pay close attention to understand or may have to clarify something from time to time. Operational Level 4 is certainly not a perfect level of proficiency; it is the minimum level of proficiency determined to be safe for air traffic control communications. While it is not an Expert level, it is important to keep in mind that pronunciation plays the critical role in aiding comprehension between two non-native speakers of English.

Structure	<p>Relevant grammatical structures and sentence patterns are determined by language functions appropriate to the task. Users may refer to the communicative aeronautical language functions, to the list of controller communicative tasks and to the classification of basic and complex structures in Appendix B for guidance. Language teaching specialists generally categorize grammatical errors into two classes: "global" and "local". Global errors are those which interfere with meaning; local errors are those which do not interfere with meaning.</p>	<p>Operational Level 4 speakers have good command of basic grammatical structures. They do not merely have a memorized set of words or phrases on which they rely but have sufficient command of basic grammar to create new meaning as appropriate. They demonstrate local errors and infrequent global errors and communication is effective overall. Level 4 speakers will not usually attempt complex structures, and when they do, quite a lot of errors would be expected resulting in less effective communication.</p>
Vocabulary	<p>Vocabulary includes individual words and fixed expression. Vocabulary can be classified by the domains of meaning to which it refers. A partial list of vocabulary domains related to aviation communications is found in Appendix B of this manual. While memorizing phraseologies is neither an acceptable means of demonstrating language proficiency nor an effective or recommended language learning strategy, it is undeniable that context is a relevant factor in language proficiency. Therefore, learning or testing that focuses on, or is designed to elicit vocabulary related to, aeronautical radiotelephony communications is preferable.</p>	<p>An Operational Level 4 speaker will likely not have a well-developed sensitivity to register (see glossary on page (ix)). A speaker at this level will usually be able to manage communication on work-related topics, but may sometimes need clarification. When faced with a communication breakdown, an Operational Level 4 speaker can paraphrase and negotiate meaning so that the message is understood. The ability to paraphrase includes appropriate choices of simple vocabulary and considerate use of speech rate and pronunciation.</p>
Fluency	<p>For our purposes, fluency is intended to refer to the naturalness of the flow of speech production, the degree to which comprehension is hindered by any unnatural or unusual hesitancy, distracting starts and stops, distracting fillers (em ... huh ... er ...) or inappropriate silence. Levels of fluency will be most apparent during longer utterances in an interaction. They will also be affected by the degree of expectedness of the preceding input which is dependent on familiarity with scripts or schemata described in Chapter 3.</p>	<p>Speech rate at this level may be slowed by the requirements of language processing, but remains fairly constant and does not negatively affect the speaker's involvement in communication. The speaker has the possibility of speaking a little faster than the ICAO recommended rate of 100 words per minute if the situation requires (Annex 10, Volume II, 5.2.1.5.3 b)).</p>
Comprehension	<p>This skill refers to the ability to listen and understand. In air traffic control communications, pilots rely on the clear and accurate information provided to them by controllers for safety. It is not sufficient for air traffic controllers to be able to handle most pilot communications; they must be ready for the unexpected. Similarly, pilots must be able to understand air traffic controller instructions, especially when these differ from what a pilot expects to hear. It is during complications in aviation that communications become most crucial, with a greater reliance upon plain language. While comprehension is only one out of six skills in the Rating Scale, it represents half of the linguistic workload in spoken communications.</p>	<p>As with all Operational Level 4 descriptors, comprehension is not expected to be perfectly accurate in all instances. However, pilots or air traffic controllers will need to have strategies available which allow them to ultimately comprehend the unexpected or unusual communication. Unmarked or complex textual relations are occasionally misunderstood or missed. The descriptor of Operational Level 4 under "Interactions" clarifies the need for clarification strategies. Failure to understand a clearly communicated unexpected communication, even after seeking clarification, should result in the assignment of a lower proficiency level assessment.</p>

Interactions	Because radiotelephony communications take place in a busy environment, the communications of air traffic controllers and pilots must not only be clear, concise and unambiguous, but appropriate responses must be delivered efficiently and a rapid response time is expected. The interactions skill refers to this ability, as well as to the ability to initiate exchanges and to identify and clear up misunderstandings.	A pilot or air traffic controller who does not understand an unexpected communication must be able to communicate that fact. It is much safer to query a communication, to clarify, or even to simply acknowledge that one does not understand rather than to allow silence to mistakenly represent comprehension. At Operational Level 4, it is acceptable that comprehension is not perfect 100 per cent of the time when dealing with unexpected situations, but Level 4 speakers need to be skilled at checking, seeking confirmation, or clarifying a situation or communication.
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Table 1: Explanation of ICAO rating scale descriptors

4.6 Standard radiotelephony phraseology versus plain language.

a) ICAO Doc 9835 (2010: 4-5) requires the following LPR criteria to be met:

“The language proficiency requirements are applicable to the use of both phraseologies and plain language.’ This statement refers only to those characteristics of language use to which ICAO standardized phraseology conforms. Appropriate application of the language proficiency requirements to the use of phraseology should include the following criteria:

a) pronunciation of phraseology according to ICAO recommended pronunciations as found in Annex 10, Volume II, 5.2.1.4.3, Doc 9342 or otherwise in accordance with the ICAO Operational Level 4 pronunciation descriptor of the Rating Scale;

b) using a speech transmitting technique (enunciation, rate of speech, pausing, and speaking volume) in accordance with Doc 9342 or otherwise with the ICAO Operational Level 4 fluency descriptor of the Rating Scale.”

The implication of this for LPR testing parties is that the ability to correctly communicate using standard radiotelephony must be part of an LPR test. It might be necessary for an ATO and its associated ATO inspector(s) to drastically revise the approved series of LPR tests. It is obvious that the incorrect use or even absence of standardized radiotelephony phraseology can easily pose as great a danger to flight safety as an inadequate command of the aeronautical radio language. In South Africa this is of course English, as prescribed by the CARs. ICAO (Doc 9835, 2010: 1-1) explains this as follows:

“The purpose of phraseologies is to provide clear, concise, unambiguous language to communicate messages of a routine nature. One study of real en-route radiotelephony communications (Mell, 1992) revealed that 70 per cent of all speech acts uttered by native and non-native speakers, and for which a phraseology is prescribed, are not compliant with the recognized standards. For phraseologies to have the most significant safety impact, all parties need to use ICAO standardized phraseology. The importance of adhering to ICAO standardized phraseology is discussed further in Chapter 4. However, while ICAO standardized phraseology has been developed to cover many circumstances, it cannot address all pilot and controller communication needs. It is widely acknowledged by operational and linguistic experts that no set of standardized phraseologies can fully describe all possible circumstances and responses.”

b) As far as its emphasis on phraseology is concerned, ICAO says that misunderstandings and confusion are much reduced by its correct use. In summary therefore, the use of standardized phraseology ...

- i. is compulsory for all those involved in aeronautical radiotelephony communications,
- ii. is done according to rules for when to say something, what to say (words and sentence patterns), what to understand and how to pronounce and utter messages,
- iii. is a technical requirement to ensure efficient and safe communications,
- iv. is explained in ICAO Doc 9432.

c) ICAO is clear about the use of standard phraseology and plain language (Doc 9835, 2010: 3-5):

“Standardized phraseology should therefore provide the tools for communication in most of the situations encountered in the daily practice of ATC and flight.” However, plain language becomes important in some conditions. Unusual and unexpected events occur in aviation, as ICAO explains: *“... an inexperienced pilot gets lost, a technical problem develops on the aircraft, a passenger falls sick, someone provokes a bomb alert, ATC equipment fails or the truly unexpected arises. In these cases, where phraseology provides no readymade form for communication, pilots and controllers must resort to plain language.”*

“Plain language in aeronautical radiotelephony communications means the spontaneous, creative and noncoded use of a given natural language, although constrained by the functions and topics (aviation and non-aviation) that are required by aeronautical radiotelephony communications, as well as by specific safety-critical requirements for intelligibility, directness, appropriacy, non-ambiguity and concision.”

4.7 ICAO web links

On a dedicated web page, ICAO provides substantial guidance on its Language Proficiency Requirements. The SACAA encourages the use of the valuable resources which are accessible via the following link: <https://www.icao.int/safety/lpr/Pages/Language-Proficiency-Requirements.aspx>

5. DEVELOPING AN LPR TEST

5.1 The purpose of an LPR test

An LPR test is really a way to try and see a something that is not openly visible. In Doc 9835 (2010: 2-3) ICAO explains that *“All the competences needed for language proficiency are ‘constructs’ of mental and physical abilities and they are not directly observable... Performance then is not the same as competence but provides the only opportunity by which competence and language proficiency can be inferred and assessed.”*

The role of the test is to accurately and thoroughly probe a candidate's competence by virtue of its intelligent design and proper execution. A slapdash, superficial test does not reveal someone's ability. If communication is the name of the game, then to adequately determine whether a candidate can communicate effectively requires testing 2-way communication.

In a nutshell, a candidate must demonstrate the ability to engage in meaningful aviation-specific communication. This means that he or she must understand what is discussed and respond appropriately with insight. It also means that an aeronautical language proficiency test may be an exercise where a candidate recites memorized phrases. An LPR test must be designed to fairly and accurately determine the extent of a candidate's ability in all ICAO-specified domains. This can only be done by including unexpected communication developments or situations in an LPR test. A proficient candidate must be able to accommodate this at the level specified in the ICAO rating scale.

While the LPR test is not a test of linguistic ability as such, adequate aeronautical radio communication skills rely on discrete linguistic components. A well-designed test assesses these discrete components individually and globally.

It is a core requirement to be able to use standard phraseology for standard situations and the LPR test should investigate this ability in a communication context. Standard ICAO radiotelephony phraseology should be the default communication mechanism in aeronautical radiocommunication. However, it is also a radio communication requirement to switch to plain language where unusual or non-standard situations require this. Both of these elements must be assessed.

5.2 Assessing language proficiency in the absence of non-verbal, visual cues to a candidate

In Chapter 6 of Doc 9835 (2010: 6-11), ICAO explains that *“Voice-only interaction is an important characteristic of aeronautical radiotelephony communications; when a pilot and a controller interact, they cannot see each other.”*

Furthermore, ICAO also explains *“When two people interact face-to-face, they use non-verbal cues (information other than words) to help them understand each other’s messages. People’s facial expressions, their body language and the gestures they make with their hands often communicate important information. Aeronautical radiotelephony communications do not benefit from such non-verbal cues; all radiotelephony communications are conveyed through words alone, which can be more difficult to interpret than face-to-face communication.”*

This means that an LPR test may not only involve face-to-face communication but must include some time of voice-only interaction. ICAO suggests using a telephone or headset so that the test-team and candidate cannot see each other.

5.3 Test methodology

An LPR test must be conducted in a suitable room with no significant external noise discernible. Intrusions must not be allowed, unless safety or an urgent event matter relating to the candidate or testing personnel dictates otherwise.

5.4 What should not be tested?

Remember that an ICAO LPR test is not a hearing test, nor a technical procedural test or even a radio operating test. It is ultimately a test of someone’s ability to communicate in English in the context of aeronautical radiotelephony. Be careful not to use any mechanism that interferes with the core purpose of the test. For example, using an audio clip of an ATC to check for comprehension may be unfair if the controller himself has a strong accent or uses non-standard terminology and jargon which are unknown to the candidate.

5.5 The testing of aeronautical radiotelephony phraseology during an LPR test

- a) The question may rightfully be asked - at which level should standardized radio phraseology be evaluated during an ICAO LPR test? ICAO acknowledges that standard phraseology incorporates operational procedures. This complicates the assessment of phraseology during an LPR test, because the goal of a language test is not to test procedural knowledge, but to isolate and assess the linguistic skill component independently of the practical, operational skill. This means, for example, that an LPR test for an ATC should not assess whether the controller is actually able to apply separation standards to multiple aircraft at the same time, but whether the candidate is able to use phraseology appropriately, understand what a standard message means and is able to communicate with standard phraseology.
- b) In the case of a flight crew member, for example, the phraseology component of an LPR test should not assess the pilot’s knowledge of weather phenomena, but whether he or she is able to use the correct standard phraseology to communicate cloud height via radiotelephony.
- c) This complex isolation of skill components requires qualified operational personnel who understand both the procedural and linguistic aspects of standard phraseology and is the reason why the SACAA requires an SME to participate in an LPR test. It goes without saying that the SME should be proficient in the use of standardized aeronautical radiotelephony phraseology. Such complexity also requires proper, intelligent test planning.
- d) In this regard, the SACAA’s guidance to testing personnel is consequently to:
 - i. Not ignore or neglect the assessment of standardized aviation radiotelephony,
 - ii. Assess the candidate’s overall ability to adhere to standardized phraseology for routine situations,
 - iii. Include an assessment of the candidate’s ability to recognize typical routine situations in which the use of standardized phraseology is appropriate,
 - iv. Assess the candidate’s ability to switch back and forth between standardized phraseology and plain language,
 - v. Not penalize the candidate for operational (practical) incorrectness by itself, on condition that phraseology is used reasonably and appropriately,
 - vi. Include an assessment the extent of correct pronunciation of phraseology,

- vii. Not penalize a candidate for phraseology errors where these would have resulted only in minor operational inconveniences, but
- viii. Pay attention to phraseology errors, misconceptions and pronunciation errors that have the likelihood of causing significant operational implications (in terms of operational efficiency and airspace management),
- ix. Pay especial attention to phraseology errors that have the likelihood for serious or safety-critical consequences,
- x. Consider the candidate's licence and aviation specialization,
- xi. Consider the level of radiotelephony proficiency which ICAO and the SACAA reasonably expect from a licence-holder or candidate,
- xii. Not penalize a candidate for isolated mistakes (unless they are serious), but to keep the candidate's overall demonstration in mind,
- xiii. Not be misled by a candidate's excellent use of plain language, while the demonstration of standard phraseology is inadequate and
- xiv. Conversely, not allow a demonstration of excellent standard phraseology to "subsidize" deficient plain language use.

6. SOUTH AFRICAN REQUIREMENTS AND PROCEDURES

6.1 General

- a) ATO's and testing personnel must refer to Document SA-CATS 61.01.7 for legal requirements Some important requirements are repeated here:
 - i. Language Proficiency Requirements only apply to speaking and listening proficiency only and do not address the ability to read or write, in the English Language,
 - ii. An ICAO English Proficiency Test that includes the assessment of reading and writing skills is unacceptable and invalid,
 - iii. In accordance with the requirements, Pilots and Air Traffic Service Personnel shall demonstrate a minimum proficiency of at least Operational Level '4' of both ICAO Standard Phraseology and plain language, to be issued with or to maintain their respective licences,
 - iv. Pilots and Air Traffic Services Personnel who have not been rated at Level 6 proficiency shall be tested for English language proficiency at regular intervals to ensure that they remain proficient at the required level,
 - v. Pilots and Air Traffic Service Personnel who have been rated at Level 6 proficiency shall not require retesting,
 - vi. The interval retesting schedule referred to above is as follows:

PROFICIENCY LEVEL	PROFICIENCY TESTING INTERVAL
Level 5: Extended	Retesting required every six years
Level 4: Operational	Retesting required every three years

Table 2: The interval retesting schedule

- vii. Applicants assessed below Level 4 as well as applicants assessed at Level 4 and level 5 who wish to gain a Level rating shall be required to wait for a period of 90 days before applying for re-assessment,
- viii. Oral Proficiency Interviews (OPIs) must be conducted jointly by a CAA registered Subject Matter Expert (SME) and a Linguistic Expert,
- ix. OPIs shall be conducted using face-to-face interview procedures (In other words by a personal interview),
- x. Each OPI shall be recorded electronically and stored for a minimum of 6 years in an archive system,
- xi. All associated testing records shall be open for inspection and audits by the CAA,
- xii. ATOs that wish to conduct LPR testing must apply to the CAA for Operations Specification (Ops Spec) approval,

- xiii. Specific qualified experts associated with these organisations must also apply for registration Language Proficiency Interviewers/ Raters in accordance with their respective professional and academic qualifications,
- xiv. LPR interviews and ratings may only be conducted by professionals registered as CAA Language Proficiency Interviewers (Raters),
- xv. All CAA registered Language Proficiency Interviewers (Raters) shall demonstrate full proficiency (Level 6 competency) in their language usage,
- xvi. Interviewers (Raters) must also sign a Code of Conduct concerning language-testing practices,
- xvii. The associated appendices to SA-CATS are referred to in the References section of this TGM.

6.2 SAQA accreditation

The requirement for Approved Test Centres and Language Proficiency Interviewers (Raters) to hold SAQA accreditation is not currently enforced. This SAQA specification excludes specialist required to hold SAQA qualifications, such as teachers.

6.3 Acceptance of Prior Learning or Foreign CAA language certification

The provisions for the acceptance by the SACAA of prior learning and or foreign CAA language certification are stipulated in Document SA-CATS 61.1.7 Language. ATOs and applicants should note that, because ICAO Language Proficiency requirements presently relate to speaking and listening proficiency only (particularly via radiotelephony), certain schooling educational qualifications are unrelated to these verbal communication skills and consequently do not qualify for SACAA alternative language certification. The North American GED test is one example of **this**.

6.4 Requirements of test designers and testers

The legal provisions and guidance in respect of qualification requirements are tabled in Appendix 1.5.2 to Document SA-CATS 61 - ICAO AVIATION ENGLISH QUALIFICATIONS.

7. WHAT IS AN OVERSIGHT?

7.1 International responsibility

As an ICAO member country, South Africa has an international responsibility to ensure that safety-critical activities are performed to an acceptable standard. The Chicago Convention requires member states to fulfil certain functions, such as Personnel Licensing. However, the state may delegate some of these functions to external service providers, typically designated examiners for flight crew and air traffic controllers. In the case of language proficiency testing, this function is accomplished by SACAA approved linguistic and subject matter experts associated with specific ATOs. These respective parties conduct the testing of language as a team. They are specifically listed by name in an ATO's and referred to as Language Proficiency interviewers or raters in South African legislation.

7.2 Delegation

In terms of testing, ICAO emphasizes that a state can only delegate specified **tasks**, not its own **national accountability** (ICAO, 2012: 1-6-1) *"It is important to understand that, ..., the State of Registry's Licensing Authority retains its responsibility for personnel licensing even though it may have delegated some or all of the functions"*

For this reason, ICAO requires states to do periodic inspections and audits on delegated institutions and individuals, referring to this activity as *"Surveillance."* Essentially, the concept of surveillance is simply the process of making sure that delegated functions are done correctly by external (i.e. non-CAA) service providers and organizations. ICAO regards this surveillance requirement as so important that it deems it to be one of the eight critical elements of any state's aviation safety system. ICAO has designated surveillance as Critical Element number 7 (CE-7). ICAO Doc 9734, Part A of the Safety Oversight Manual series, defines CE-7 as follows:

"CE-7. Surveillance obligations. The implementation of processes, such as inspections and audits, to proactively ensure that aviation licence, certificate, authorization and/or approval holders continue to meet the established requirements and function at the level of competency and safety required by the State to undertake an aviation related

activity for which they have been licensed, certified, authorized and/or approved to perform. This includes the surveillance of designated personnel who perform safety oversight functions on behalf of the CAA." (International Civil Aviation Organization, 2006: 3-2).

7.3 Worldwide, different terms are used to describe the surveillance process.

- a) In South Africa, the surveillance of examiners to whom the SACAA has delegated certain functions is referred to by the term "Oversight." Oversight is normally done by a group of specialized SACAA Examiners (or Inspectors), who were historically referred to as "Testing Standards Officers" (abbreviated to "TSO"). More recently, the official title of this position has been amended to "PEL Inspector (Pilot/FSTD)."
- b) The phrase "This includes the surveillance of designated personnel who perform safety oversight functions on behalf of the CAA" (quoted above), of course refers to designated Examiners from all testing disciplines. Although oversights are also required to be done on designated examiners and licence-holders in all disciplines (such as Flight Examiners, Cabin crew members, Aircraft maintenance Engineers and Air Traffic Controllers), this document gives guidance on the oversight of language proficiency testers.

7.4 Authorised Officers

The term AO is used to refer to employees of the SACAA who have been designated by the DCA in terms of the Civil Aviation Act, No. 13 of 2009. The delegation empowers AO to monitor regulatory compliance and is generally held by the inspectorate and other technical personnel of the SACAA.

7.5 Standardisation, consistency and oversight protocol

- a) The SACAA has the mandate to supervise the activities of all testing done by all external (non-SACAA) personnel to ensure that the testing and checking standards are achieved uniformly and at a satisfactory level.
- b) To this effect, the DCA has appointed Authorised Officers (AOs), who are trained and suitably qualified to conduct oversights on such activities.
- c) The purpose of oversights is to ensure that the standards applied during testing are acceptable and comply at least with minimum prescribed requirements. It is also done to ensure that testing personnel conduct themselves in conformity with the Code of Conduct and guide-lines provided in this document.
- d) At the discretion of the AO, an oversight may be done by one of the following means:
 - i. A live test,
 - ii. Listening to audio records or (potentially)
 - iii. by the administration of a "mock" test.
- e) For the purposes of this document, a "mock" test is defined as an authentic replication of a test or
- f) check scenario. The "mock" candidate(s) may be a 3rd party or an AO, playing the role of a person that is about to be assessed. In a case where an AO is requested to act as the candidate, participation will be at the discretion of the AO and with the approval of the relevant SACAA line manager.
- g) Periodic oversights by an Authorized Officer may be expected as part of the SACAA surveillance program.
- h) The oversight will focus particularly on the content and quality of the Language Proficiency test and the
- i) raters' adherence to prescribed testing standards.
- j) At the time of compilation, oversight on LPR testing shall be conducted at least annually and may be unannounced, in accordance with reasonable auditing protocol. The oversight should preferably be done by a TSO i.e. a PEL inspector (P/FSTD) or PEL inspector (ATC) due to the disciplines involved.
- k) However, the POI of an ATO (PEL inspector (ATO)) may also conduct the oversight after liaison with the Manager: Examinations.
- l) In cases where an oversight is combined with an ATO inspection, close liaison done between inspectors of the departments is beneficial.
- m) In addition to form completion, the oversight must record in an attendance register.
- n) An oversight must be done intelligently, paying close attention to the content of the test.




- o) The primary form used for the oversight will be the LANGUAGE PROFICIENCY TEST REPORT FOR RADIOTELEPHONY COMMUNICATION. This form will be completed and stored in the Examination section.
- p) Additional documentation might be necessary e.g. form CA 141-03C ATTACHMENT C to CA 141-03 for English proficiency test.
- q) During an oversight, as least 2 different tests must be reviewed, along with all required documentation. At an ATO exclusively involved with LPR-related matters or one doing a large number of LPR tests per year it might be necessary to review more tests than at a smaller ATO.
- r) The core matter at stake is that the process of testing, the content of tests and the quality and accuracy of grading is reviewed to verify that standards are met.
- s) The AO doing an oversight must attempt to sample as randomly as possible and not merely accept tests that are offered by ATO staff.
- t) AOs that have not conducted LPR oversights should first receive training.

Table 3: The ICAO Language proficiency rating scale

Note.— The Operational Level (Level 4) is the minimum required proficiency level for radiotelephony communication

LEVEL	PRONUNCIATION <i>Assumes a dialect and/or accent intelligible to the aeronautical community.</i>	STRUCTURE <i>Relevant grammatical structures and sentence patterns are determined by language functions appropriate to the task.</i>	VOCABULARY	FLUENCY	COMPREHENSION	INTERACTIONS
Expert 6	Pronunciation, stress, rhythm, and intonation, though possibly influenced by the first language or regional variation, almost never interfere with ease of understanding.	Both basic and complex grammatical structures and sentence patterns are consistently well controlled.	Vocabulary range and accuracy are sufficient to communicate effectively on a wide variety of familiar and unfamiliar topics. Vocabulary is idiomatic, nuanced, and sensitive to register.	Able to speak at length with a natural, effortless flow. Varies speech flow for stylistic effect, e.g. to emphasize a point. Uses appropriate discourse markers and connectors spontaneously.	Comprehension is consistently accurate in nearly all contexts and includes comprehension of linguistic and cultural subtleties.	Interacts with ease in nearly all situations. Is sensitive to verbal and non-verbal cues and responds to them appropriately.
Extended 5	Pronunciation, stress, rhythm, and intonation, though influenced by the first language or regional variation, rarely interfere with ease of understanding.	Basic grammatical structures and sentence patterns are consistently well controlled. Complex structures are attempted but with errors which sometimes interfere with meaning.	Vocabulary range and accuracy are sufficient to communicate effectively on common, concrete, and work-related topics. Paraphrases consistently and successfully. Vocabulary is sometimes idiomatic.	Able to speak at length with relative ease on familiar topics but may not vary speech flow as a stylistic device. Can make use of appropriate discourse markers or connectors.	Comprehension is accurate on common, concrete, and work-related topics and mostly accurate when the speaker is confronted with a linguistic or situational complication or an unexpected turn of events. Is able to comprehend a range of speech varieties (dialect and/or accent) or registers.	Responses are immediate, appropriate, and informative. Manages the speaker/ listener relationship effectively.
Operational 4	Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation but only sometimes interfere with ease of understanding.	Basic grammatical structures and sentence patterns are used creatively and are usually well controlled. Errors may occur, particularly in unusual or unexpected circumstances, but rarely interfere with meaning.	Vocabulary range and accuracy are usually sufficient to communicate effectively on common, concrete, and work-related topics. Can often paraphrase successfully when lacking vocabulary in unusual or unexpected circumstances.	Produces stretches of language at an appropriate tempo. There may be occasional loss of fluency on transition from rehearsed or formulaic speech to spontaneous interaction, but this does not prevent effective communication. Can make limited use of discourse markers or connectors. Fillers are not distracting.	Comprehension is mostly accurate on common, concrete, and work-related topics when the accent or variety used is sufficiently intelligible for an international community of users. When the speaker is confronted with a linguistic or situational complication or an unexpected turn of events, comprehension may be slower or require clarification strategies.	Responses are usually immediate, appropriate, and informative. Initiates and maintains exchanges even when dealing with an unexpected turn of events. Deals adequately with apparent misunderstandings by checking, confirming, or clarifying.
<i>Levels 1, 2 and 3 are on subsequent page.</i>						

LEVEL	PRONUNCIATION <i>Assumes a dialect and/or accent intelligible to the aeronautical community.</i>	STRUCTURE <i>Relevant grammatical structures and sentence patterns are determined by language functions appropriate to the task.</i>	VOCABULARY	FLUENCY	COMPREHENSION	INTERACTIONS
<i>Levels 4, 5 and 6 are on preceding page.</i>						
Pre-operational 3	Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation and frequently interfere with ease of understanding.	Basic grammatical structures and sentence patterns associated with predictable situations are not always well controlled. Errors frequently interfere with meaning.	Vocabulary range and accuracy are often sufficient to communicate on common, concrete, or work-related topics, but range is limited and the word choice often inappropriate. Is often unable to paraphrase successfully when lacking vocabulary.	Produces stretches of language, but phrasing and pausing are often inappropriate. Hesitations or slowness in language processing may prevent effective communication. Fillers are sometimes distracting.	Comprehension is often accurate on common, concrete, and work-related topics when the accent or variety used is sufficiently intelligible for an international community of users. May fail to understand a linguistic or situational complication or an unexpected turn of events.	Responses are sometimes immediate, appropriate, and informative. Can initiate and maintain exchanges with reasonable ease on familiar topics and in predictable situations. Generally inadequate when dealing with an unexpected turn of events.
Elementary 2	Pronunciation, stress, rhythm, and intonation are heavily influenced by the first language or regional variation and usually interfere with ease of understanding.	Shows only limited control of a few simple memorized grammatical structures and sentence patterns.	Limited vocabulary range consisting only of isolated words and memorized phrases.	Can produce very short, isolated, memorized utterances with frequent pausing and a distracting use of fillers to search for expressions and to articulate less familiar words.	Comprehension is limited to isolated, memorized phrases when they are carefully and slowly articulated.	Response time is slow and often inappropriate. Interaction is limited to simple routine exchanges.
Pre-elementary 1	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.

DEVELOPED BY:		
	THEO ODENDAAL	16 MARCH 2020
SIGNATURE OF TSO	NAME IN BLOCK LETTERS	DATE
REVIEWED & VALIDATED BY:		
	JOHAN NIEMAND	16 MARCH 2020
SIGNATURE OF SM: PEL	NAME IN BLOCK LETTERS	DATE
APPROVED BY:		
	SIMON SEGWABE	16 MARCH 2020
SIGNATURE OF E: ASO	NAME IN BLOCK LETTERS	DATE

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