



## The ICAO Language Proficiency Programme

Between 1976 and 1996, five tragic accidents occurred that involved breakdowns in communication between pilots and air traffic control (ATC). More than 1,000 people lost their lives in these accidents. In response, ICAO (the International Civil Aviation Organization) initiated a programme in 1998 to improve the language proficiency of commercial pilots and air traffic controllers worldwide. The Proficiency Requirements in Common English Study Group (PRICESG) was set up to review all aspects of air-ground and ground-ground voice communications. Subsequently two more accidents involving language factors took place in 2000 and 2001.

The PRICE Study Group reported its findings, and in 2003 the ICAO Council adopted amendments relating to language proficiency for the Air Traffic Management PANS and Annexes 1, 6, 10 and 11 of the Convention on International Civil Aviation.<sup>1</sup> A set of Language Proficiency Requirements (LPRs) was drawn up, which describe the minimum acceptable language proficiency level for pilots and air traffic controllers. The intention was that all member states would comply with these requirements by 2008. However, the programme could not be implemented within this timescale, and a three-year transition period was adopted. As a result, the ICAO programme finally came into full effect on 5<sup>th</sup> March 2011.

The language proficiency programme was a huge and unprecedented undertaking, embedded in a complex web of documentation, including Annexes, PANS and guidance material. In essence its complexity can be boiled down to one simple requirement: pilots and air traffic controllers around the world must demonstrate a certain level of language proficiency before they can carry out international flight operations.

### Rating Scale and Tests

ICAO has not developed a standardized test for evaluating the language proficiency of pilots and controllers. Instead, countries are permitted to use different tests, but they must all conform to descriptors set out in the LPR rating scale. This scale is a matrix that consists of six assessment criteria and six proficiency levels. The assessment criteria are: (a) pronunciation, (b) grammatical structure, (c) vocabulary, (d) fluency, (e) listening comprehension, and (f) interactions. In other words, the construct of language proficiency is broken down into six assessment criteria within the LPR rating scale.

For each of the criteria, individuals are assessed as being at one of six proficiency levels, from Level 1 (“Pre-elementary”) to Level 6 (“Expert”). Pilots and controllers who are involved in international flight operations must demonstrate proficiency at Level 4 (“Operational”) or higher for all the criteria. If they do so, their licence is endorsed for a certain period of time. For personnel evaluated at Level 4, this period is no more than three years. Before the end of the period they are evaluated again. As an example of the requirements for Level 4, the pronunciation descriptor states that: “Pronunciation, stress, rhythm and intonation are

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<sup>1</sup> The Convention on International Civil Aviation (or “Chicago Convention”) has 19 Technical Annexes. Annex 1 covers “Personnel Licensing”; Annex 6 is titled “Operation of Aircraft”; Annex 10 is “Aeronautical Telecommunications”; and Annex 11 is “Air Traffic Services”.



influenced by the first language or regional variation, but only sometimes interfere with ease of understanding.” (ICAO, 2010, p. 4-9)

Estival, Farris and Molesworth (2016) pointed out the importance of distinguishing between ICAO guidance material and ICAO requirements. In practice this may be difficult because the content overlaps. ICAO Document 9835, “The Manual on the Implementation of ICAO Language Proficiency Requirements”, is a guidebook to the language proficiency programme. It was first published in 2004 and then in revised form in 2010. This document serves as *guidance material* to facilitate implementation of the programme. Confusingly, some parts of Document 9835 are also included in ICAO Annexes, which means they are *requirements* that member states must comply with. For example, the LPR rating scale appears in both Document 9835 and Annex 1.<sup>2</sup> Since the scale is in Annex 1, it must be complied with. By contrast, elements such as “specific recommended practices for native English or expert-level speakers in English as lingua franca (ELF) interactions” appear in Document 9835 but not in the Annexes (Estival et al., 2016, p. 57). Hence such elements are only guidance material.

## Problems with the Programme

The aim of improving the language proficiency of pilots and air traffic controllers is laudable. It goes without saying that clear communication is essential for the smooth and safe operation of the international air transport system. Nevertheless, the ICAO language proficiency programme has been criticized on a range of issues. One contentious area is testing. Alderson (2009, p. 180) questioned whether language tests are an appropriate way of assessing language use in flight operations, asking: “What is the value of a language test for ensuring flight safety: Is it not more important to observe how language is used under stressful conditions?”

Another aspect of the language proficiency programme to have attracted criticism is the LPR rating scale. Estival et al. (2016) noted that ICAO had not explained the theoretical and empirical underpinning of the assessment criteria. Additionally, Farris and Turner (as cited in Estival et al., 2016, p. 185) called for “careful, evidence-based consideration of the assumptions that underlie the ICAO LPRs”. Problematic issues include the distinctions, in the context of civil aviation, between the following pairs of items: standard phraseology and plain language, English and other languages, and native English speakers (NES) and non-native speakers (NNS).

Pilot-ATC communication consists of two language varieties: **standard phraseology** and **plain language**. The separation of these is a key tenet of ICAO’s language proficiency programme, which stipulates that language tests for pilots and controllers should only assess plain language, not standard phraseology. The reasoning is that standard phraseology is a technical aspect of the work of pilots and controllers, which is already assessed in training, and should not be assessed by language experts who may not be familiar with flight operations. Estival et al. (2016, p. 85) acknowledged this concern, but pointed out a fundamental problem in the argument: standard phraseology and plain language “are intertwined in the real life context”. Given that ICAO’s goal is to improve language proficiency so that pilots and

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<sup>2</sup> The LPR rating scale is in Attachment A to Appendix 1 of Annex 1.



controllers can cope with unexpected situations, the authors questioned whether “the assessment of standard phraseology can or should be disregarded in the assessment of language proficiency”.

A related issue is that the ICAO language proficiency programme associates phraseology with routine situations and plain language with non-routine situations. This division does not reflect actual language use, since plain language is observed in *both* routine and non-routine situations. To give a commonplace example, pilots and controllers often add phatic expressions such as “Good morning” and “Thanks” (or equivalents in other languages) to routine messages which otherwise adhere to standard phraseology. Estival et al. (2016, p. 85) observed that:

...one of the difficulties in developing tests in response to the ICAO LPRs is that tests are to be developed in response to policy and to largely theoretical notions of language use in the aviation context, as opposed to being developed in response to empirical studies of the way language is actually used in this context.

Standard phraseology and plain language have different characteristics. One challenge facing pilots and controllers is that they regularly have to switch between the two, or combine them. Another challenge is that the two varieties require different skills. To become proficient at standard phraseology, both NES and NNS must practise until production and comprehension of the limited vocabulary and syntax become automatic. By contrast, plain language requires both a sufficient level of language proficiency *and* the ability to use language innovatively according to the needs of the situation.

## References

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