

Passengers listening in on radio communications on a domestic flight in the United States a couple of years ago heard the following exchange between the pilot and the Jacksonville (Florida, U.S.) Center controller:

Pilot: "Jacksonville Control. United XXX. Can we reduce speed to xxx knots?"

Controller: "United XXX. Jacksonville Control. Only if you want to join the back of the pack."

Pilot: "Okay. We'll pin our ears back then."

Controller: "You don't need to do that. Just maintain current speed."

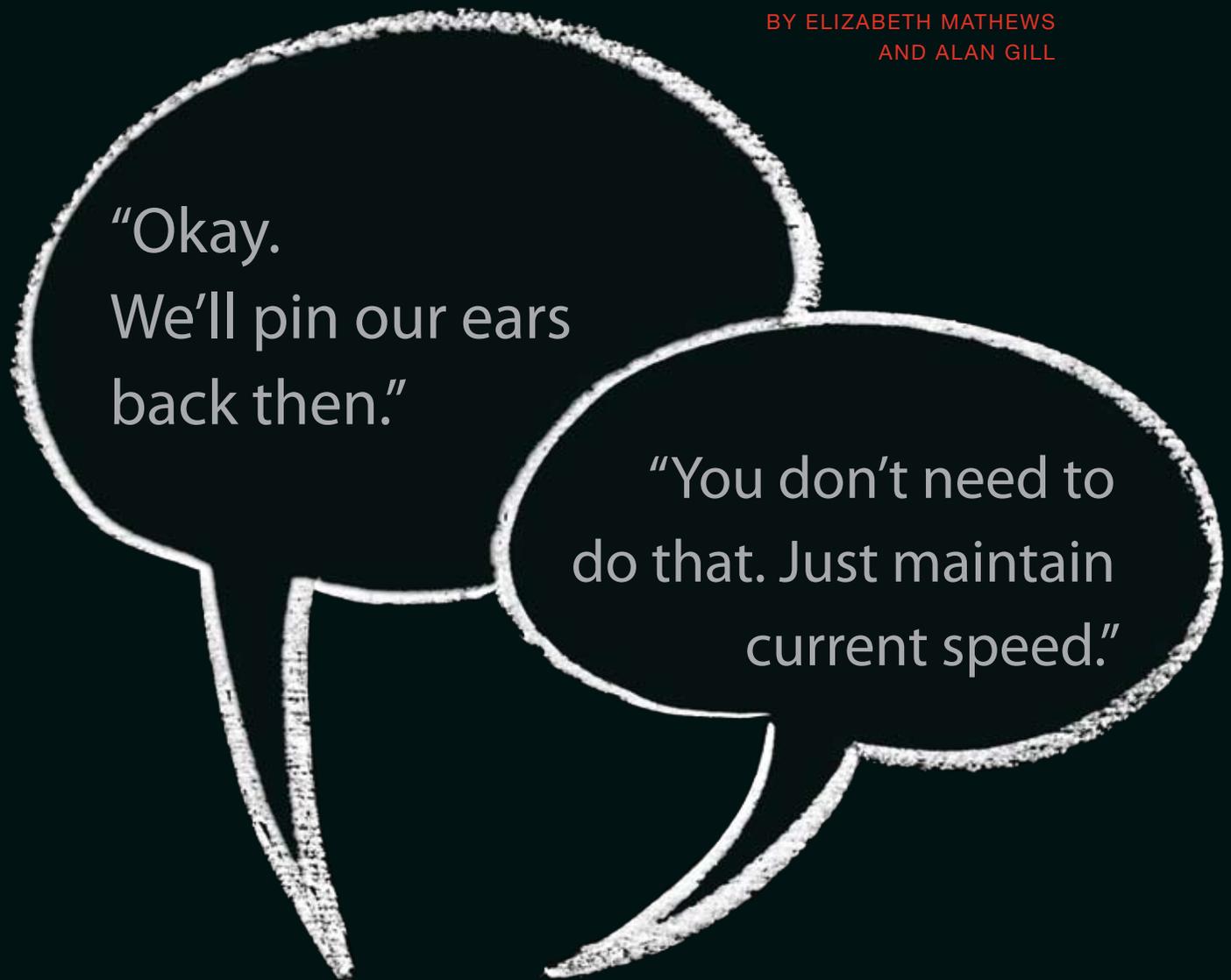
This exchange is interesting from both a linguistic and an operational point of

view, and illustrates how the International Civil Aviation Organization (ICAO) language proficiency standards and recommended practices (SARPs) apply to speakers of English as a first language.¹

ICAO's language proficiency requirements call for all flight crewmembers, air traffic controllers and aeronautical station operators involved in international operations, regardless of their first

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Can They Talk the Talk?

language, to demonstrate at least “operational” proficiency in English by March 2011. ICAO defines six levels of competence in English, ranging from “pre-elementary” Level 1 to “expert” Level 6; the “operational” level is Level 4.

Specifically, the brief radio exchange above highlights the following:

- The requirement for civil aviation authorities to distinguish between license holders who demonstrate ICAO Level 6 English proficiency and those who demonstrate lower levels of proficiency;
- The heightened importance of adherence to ICAO phraseology in the context of strengthened ICAO language proficiency requirements;
- The concurrent and inevitable need for plain language, even in routine situations; and,
- The particular responsibility of Level 6 speakers to be aware of the challenges of international radio communications and to deliberately and conscientiously use plain language.

Regulating Language

The ICAO language proficiency requirements regulate language used in radio communication — either the national language spoken by controllers on the ground, or English. For this article, we will focus on English proficiency testing. Although the contexts may be different, ICAO member states in which English is a national language are required to implement language proficiency assessments to ensure compliance in ways similar to states that do not have English as a national language.

Pilots and controllers who demonstrate Level 6 proficiency at their initial testing are exempt from further tests. Those who demonstrate operational Level 4 proficiency or “extended” Level 5 proficiency must undergo periodic retesting, and those with proficiency at Levels 1, 2 and 3 are expected to continue English-language studies.

A Challenge

A challenge for civil aviation authorities, particularly in states with English as a national language, is to determine which applicants require recurrent testing and which qualify as expert Level 6 speakers. ICAO does not automatically exempt “native speakers” from assessment, for reasons that make sense in the global context of ICAO standards.

Globally, more people speak English as a second or third language than as a first or “native” language. Multilingualism is the global norm, and monolingual English speakers, that is, people who speak only English, are a minority.

Determining native — or “first-language” — English ability in bilingual or multilingual speakers can be so problematic that, outside of monolingual situations, the term “native language” becomes meaningless. For example, many people who acquire English as a second, third or fourth language speak it as proficiently as if it were their only language. In addition, the widespread use of English in places such as India or Singapore adds further complexity to any attempt to determine native language proficiency.

ICAO standards do not, in fact, refer to native speakers. Instead, they discuss Level 6 proficiency, which can describe either monolingual English speakers or people who speak English as one of their languages. In either case, civil aviation authorities must have a procedure to distinguish between those who demonstrate Level 6 English proficiency and are exempt from further testing, and those at lower proficiency levels who require recurrent testing or English language training.

The New Zealand Example

For example, the Civil Aviation Authority (CAA) of New Zealand has implemented a comprehensive English-as-a-first-language assessment system with separate procedures to assess ICAO Level 6 English language proficiency.²

Since March 5, 2008, applicants for New Zealand airplane and helicopter pilot licenses, as well as air traffic controller and flight service



Just because pilots claim English as a native language, that doesn't mean their aviation English is up to par.

operator licenses — including existing license holders who apply for a different license — have been required to demonstrate at least Level 4 proficiency before a language proficiency endorsement is included on their license. The language assessments are conducted by Aviation Services Limited, the CAA's designated examination provider.

Two types of English language proficiency assessments are used.

One is the formal language evaluation (FLE), an assessment conducted over the telephone of pronunciation, structure, vocabulary, fluency and comprehension, followed by a brief telephone interview with a rater; during the interview, comprehension and interactions are evaluated. Each FLE is recorded and subsequently rated by two qualified language teachers who have received training on ICAO's language proficiency requirements and are familiar with aviation contexts and terminology.

The other assessment is the Level 6 Proficiency Demonstration (L6PD), a 10-minute telephone assessment designed to allow most New Zealand applicants who speak English as a first language to demonstrate Level 6 proficiency. It confirms that expert English speakers can meet all ICAO Level 6 language criteria — pronunciation, structure, vocabulary, fluency, comprehension and interactions — on a variety of familiar and unfamiliar topics but does not test technical knowledge or phraseology.

Because the L6PD is intended for pilots who are confident of their ability to communicate at Level 6, the only scoring outcomes are “Level 6” or “not determined.” A “not determined” assessment may be a result of responses that were too short, contained long pauses or were not relevant to the topic. An

applicant who receives a “not determined” assessment may not re-take the L6PD but must subsequently undergo an FLE to prove his or her proficiency. In some cases, an applicant with low Level 6 proficiency might fail an L6PD but subsequently be assessed at Level 6 in an FLE, in which more evidence is gathered.

The L6PD was developed by a team led by an associate professor of applied language studies and linguistics at a New Zealand university and includes various scenarios intended to elicit responses from applicants. These responses are assessed — by a rater selected from the same group that assesses FLEs — to develop a picture of the applicant's overall language proficiency.

Both the FLE and the L6PD cover the language required to communicate about common, concrete, aviation-related situations or tasks, including complications or unexpected events. The aviation context is appropriate for a range of applicants from private pilots to experienced air transport pilots.

Linguistic Analysis

Returning to the radio exchange over Florida, it is probable that both speakers were demonstrating Level 6 English proficiency. However, as the dialogue illustrates, expert speakers of English do not always exhibit the standards of care and communicative professionalism that the job demands.

ICAO Document 9835, *Manual on the Implementation of ICAO Language Proficiency Requirements*, prescribes a standardized linguistic method of analyzing radio communications. Using the aeronautical communicative language functions to analyze this brief exchange highlights two important points that enhance our understanding of the requirements of radio

communications, especially in international communications.

First, even in relatively routine, non-emergency situations — “Can we reduce speed?” — there is very often a need to communicate information that is more subtle than ICAO phraseology alone may allow. In this case, the controller's response to the request to reduce speed is a conditional “yes but ...” — that is, “Yes, you can reduce speed, but I will need to vector you around to rejoin the flight path behind the aircraft following you.”

There is no published ICAO phraseology that permits the “negotiation” that this pilot and controller engage in. It is not realistic to expect phraseologies to cover every conceivable situation. The need for natural, or plain, language occurs not infrequently during normal flight operations. In fact, the SARPs have always made clear that ICAO phraseologies are intended to be representative and not exhaustive.

Second, the pilot and controller both resorted to idiomatic expressions — “join the back of the pack” and “pin our ears back” — probably as a kind of shorthand. Another phenomenon also may be present. In normal use, language allows humans to connect and establish relationships with one another. Playful use of language is friendly and helps build relationships.

In this case, it was clear that the pilot and the controller understood each other's idiomatic expressions. However, idioms, like humor, do not translate well across language barriers. ICAO Level 4 proficiency descriptors do not include the more advanced ability to understand idiomatic expressions. In international communications, with Level 6 pilots potentially sharing the airspace with pilots who speak English

at Level 4, such language is not acceptable. Idiomatic expressions or any clever use of language hinders communication.

Natural Advantage

Pilots and controllers who speak English as a first language have a significant natural advantage because they do not normally require lengthy language training to earn or maintain a pilot certificate. In contrast, many of their international colleagues without English as a first or national language must make an extensive effort to learn English to Level 4 proficiency.

Similarly, airlines and air navigation service providers in nations with English as the dominant national language are not experiencing the same organizationally substantial language training requirements that face airlines and air navigation service providers in other nations. While there are currently no reasonable alternatives to English as the international language for radio communications, and while the ability to speak English with at least Level 4 proficiency is essential, it also should be recognized that an unequal distribution of training requirements inevitably results; this calls for a generous and thoughtful response from the industry and from individuals.

The first and easiest way for the industry to support global compliance with ICAO language SARPs is to strengthen individual, organizational and national adherence to ICAO phraseology.

In many parts of the world, pilots and controllers are required to complete a test on ICAO phraseology as a licensing requirement. All pilots flying international routes, regardless of their first language, should demonstrate proficiency with ICAO phraseology. Nations with published phraseology that differs from ICAO phraseology should carefully review communication procedures to align as closely as possible with ICAO phraseology.

Linguistic Awareness

Pilots and controllers also must become aware of the special challenges of cross-cultural radio

communications and learn strategies that take those challenges into account. Basically, strict adherence to SARPs and guidance in ICAO documents is all that is required. Aviation professionals with Level 6 English proficiency are responsible for setting high standards for themselves in adhering strictly to ICAO phraseology whenever possible, and using plain language carefully and thoughtfully when ICAO phraseology is not adequate. ICAO guidance materials provide information intended to heighten awareness of the possible pitfalls of communicating across language barriers.

The English-speaking aviation world can undertake several measures to support global compliance with ICAO language standards, including collaborating to make aviation English materials widely available. However, three simple measures — adhering to ICAO phraseology, using plain language with brevity and clarity, and developing a respectful awareness of the challenges of communicating across language barriers — are the least they can do. 🗣️

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Notes

1. ICAO. Document 9835, *Manual on the Implementation of ICAO Language Proficiency Requirements*.
2. Because New Zealand is an English-speaking country, the CAA has accepted that pilots who held a valid license before March 5, 2008, have demonstrated sufficient English language ability to adequately exercise the privileges of that license within New Zealand. Those who operate only domestic flights will not be required to take a language proficiency assessment; they also will not have a language proficiency endorsement on their license.

