

Divided by a Common Language

ICAO's English-language proficiency standardization efforts still leave room for improvement.

REPORTS

You Say Overshoot, I Say Go Around

United States Airline Transport Pilot International Flight Language Experiences Report 2: Word Meaning and Pronunciation

Prinzo, O. Veronika; Campbell, Alan; Hendrix, Alfred M.; Hendrix, Rudy. U.S. Federal Aviation Administration (FAA) Office of Aerospace Medicine. DOT/FAA/AM-10/7. Final report. April 2010. 44 pp. Figures, tables, references. Available via the Internet at <www.faa.gov/library/reports/medical/oamtechreports/2010s/2010/201007> or from the National Technical Information Service, <www.ntis.org>.

The International Civil Aviation Organization (ICAO) has committed itself to developing English language proficiency requirements so that pilots and air traffic controllers in international operations not only speak the same language but also can understand each other with as little ambiguity as possible. The FAA has been conducting focus groups, which are in-depth interviews of a small number of participants, to find out how U.S. pilots perceive the state of play.

The first report, based on a focus group of 48 U.S. pilots, discussed the pilots' backgrounds in international operations and how they prepared for the possible language difficulties in flights to countries whose native language was other than English (ASW, 3/09, p. 49).

This, the second report, is based on interviews of pilots in the same focus group as the initial report. It examines the actual experiences of pilots "during times when they experienced language issues that became a barrier to efficient and effective communication between themselves and air traffic control." The report quotes extensively from responses to provide details and the comments' general tone.

Major themes include the following:

Controllers' accented English pronunciation. Only 6 percent of the pilots "often" experienced pronunciation problems, while 30 percent said they "rarely" or "occasionally" experienced them.

Sample comments:

The difficulty I have experienced is increased by accent, dialect and the way the information is presented. The most common examples would be the names of intersections.

I think the French are very proud of their language, and rightly so. When we are cleared to a position or a waypoint, the names are pronounced in French as if delivered to a French pilot. ... When we experience problems, it's not that this has necessarily caused me to make a wrong turn or do something incorrectly; the problem that I feel it has caused is the communication and the deciphering of what it is exactly that they want us to do takes a little bit of time and puts us behind the aircraft.

The lack of standardized pronunciation of navigational aids, waypoints, intersections, etc. "There are some fixes that sound similar and are in close proximity to one another," the report says. "Pilots will look them up on their charts and talk among themselves to determine which one the controller said."

Sample comment:

Sometimes I won't catch the numbers in a frequency change, the name of a fix or off-route waypoints because they might be pronounced differently. I've found that the arrival fixes 'MELON' and 'AIRES' spoken by some Asian controllers in English can be very difficult for me to decipher.



Currency of flight time in the operational area is critical to understanding controllers’ accented English. “The more often pilots fly to a particular international airport, the greater their knowledge and skill set become,” the report says. “Associations between how a word appears in print and its pronunciation are formed based on experience listening to accented-English pronunciation of these words.”

Sample comment:

I think it’s more familiarity and frequency of flying into an area that overcome the problems of understanding the pronunciation and accent. I can lose my experience level by not flying there often enough.

Poor radios and transmission quality can reduce intelligibility. “Transmissions from ATC [air traffic control] might be weak and sound scratchy, hollow or distorted,” the report says. “Some radios might be 60 years old or older.”

Sample comment:

I have more of a problem with the quality of the radios when flying in the Caribbean and South America than I do understanding the words. We just can’t understand anything they’re saying, not because of the way they talk but because it doesn’t get to the airplane very well. ... It [sounds] like it’s coming through a wire between two cans — some of it is really, really bad.

Different phraseology causing ambiguity. Pilots often spoke of being unsure of the meaning of clearances heard in non-U.S. environments: “The most common examples ... involved the interpretation of cleared direct and runway surface operations. Phrases such as ‘after the arriving aircraft’ and ‘after aircraft of the moment’ appended to ‘line up and wait,’ and ‘into position and hold,’ although intelligible, understood and read back correctly, are difficult instructions to follow, as the pilot cannot determine when to safely execute the procedure. Several complained that different phrases were used to indicate the same action, the two most frequently mentioned being ‘into position and hold’ and ‘line up and wait.’”

Sample comments:

An example of a phrase or word having two different meanings that I have run into is “cleared direct.” In Europe and Central and South America, it can mean direct to fix via flight plan route. In the U.S., it means direct track from present position to fix, and direct from one point to another.

The term overshoot is used in the U.K., Canada and other places. They may direct us to overshoot instead of go around. You’ve heard the one about the [Lockheed] L-1011 pilot? Supposedly, the L-1011 was going into [London] Gatwick and was told to overshoot because there was [an airplane at] position and hold, or line up and wait there. [The L-1011 pilot] said, “Yeah, it’s no problem; I’ll overshoot that guy and land just past him.”

The report concludes with 11 recommendations for alleviating problems mentioned by the interviewed pilots. They include the following:

- “Adopt and adhere to the phraseologies contained in [ICAO] Doc 4444 [Air Traffic Management — Procedures for Air Navigation Services] by all of the ICAO member states and the aviation community”;
- “Develop additional phraseologies for inclusion into Doc 4444 if the existing phraseologies cannot explain adequately an event involving the safety of an aircraft, provide actions or offer solutions”;
- “Develop one standard order for the presentation and delivery of ATC phraseology by ATC, and require that ATC personnel adhere to it. For example, ‘Cleared for approach, maintain your altitude’ may violate pilot expectations to descend and lead to confusion”; and,
- “Develop aviation training courses that address plain-language proficiency, cultural differences and appropriate phraseology to declare an emergency, assisted handling requests, and assistance during unexpected or unusual situations or events.”

— Rick Darby

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WEB SITES

Guidelines for Air Safety Investigations

The International Society of Air Safety Investigators (ISASI), <www.isasi.org>

ISASI says that it advances flight safety through communication and education within its community of air safety investigators and others with similar interests. Founded in Washington, D.C., in 1964, the organization has expanded to include affiliated national and regional societies in Australia, Canada, Europe, New Zealand and Russia.

ISASI is a member-supported organization with a members-only section on its Web site. However, some resources are accessible to non-members who make an effort to look for them. Tucked under the “about ISASI” tab, under the “general” entry is a link to four guidelines documents issued by ISASI.

The recently released *Guidelines for the Investigation of Human Factors in Accidents and Incidents* says in its introduction, “Accident and incident investigation presents a real opportunity to examine the interactions between the human and the other system components. While human factors expertise is available to inform investigations, this expertise is not uniformly applied. By developing new guidelines ISASI intends to enhance existing guidance documents now available to investigators. ISASI hopes these guidelines will highlight critical areas which affect human performance.” The document was developed by the ISASI Human Factors Working Group and the

Transportation Safety Board of Canada. It includes references and a list of recommended reading materials.

Cabin Safety Investigations Guidelines, developed by the ISASI Cabin Safety Working Group, “can provide air safety investigators and other operational personnel with tools to investigate the survival aspects of incidents and

accidents.” Guidelines for documenting damage to cabin interiors and equipment and conducting flight attendant and passenger interviews can be adapted to operations without cabin attendants. ISASI says, “The guideline is adaptable to any type of occurrence, whether it is a turbulence incident, an evacuation with fire and smoke, or an event that involves water contact.”

The purpose of *Air Traffic Services [ATS] Investigation Guidelines* is to help ATS investigators identify potential ATS issues, collect and analyze data, draw conclusions, develop reports and make safety recommendations. The ATS Working Group developed the guidelines to be used in conjunction with local and international regulatory and procedural standards and recommended practices.

Investigator Training and Education Guidelines reviews investigator training and education requirements for initial and continuing education, training standards and recommended practices. The document includes terms of reference and definitions.

A link to the organization’s *Forum* magazine is found under the “members only” tab, under the “publications and governance” entry. Full-text issues of the quarterly magazine from 2003 to the present may be read online or printed by anyone. Editorial content emphasizes accident investigation findings, techniques and experiences; regulatory issues; industry accident prevention developments; and member involvement, thus reflecting the magazine’s intended audience — professional air safety investigators and ISASI members.

Under the same tab is a link to ISASI seminar proceedings, from the first international seminar held in 1970 (with a welcome address by Flight Safety Foundation’s Jerry Lederer) to the most recent. Like the magazine, proceedings are downloadable and in full-text.

Finally, under the “members only” tab, researchers will find a new digital collection library. The link takes readers to the Aviation Safety and Security Archives, Embry-Riddle Aeronautical University. The library contains accident reports, photos, correspondence and other important papers from several private collections. Instructions for searching the databases are included. ➔

— Patricia Setze

