



BY BRIAN DAY

# CAREFUL Communication

The improvement of radio communication to foster a higher level of safety cannot be assured simply by the International Civil Aviation Organization's (ICAO's) implementation of a new set of language provisions, no matter how detailed and comprehensive they may be.

Better operational communication requires conscious effort by practicing controllers and flight crews to improve their personal performance across a range of techniques and procedures. In particular, it is vital that international flight crews and controllers conform more closely to ICAO standardized phraseology, which has been painstakingly developed over the last 50 years.

This standardized phraseology is designed to communicate precise meaning in the conduct of aviation operations. Unlike common language that can mean many things to many people, the meanings of ICAO's standardized phraseology are singular. That is why this phraseology should always be

scrupulously used without variation, addition or embellishment.

Language in its common usage lacks the specificity and exactitude that are essential to cooperative operational activity. Plain, or common, language is fundamentally symbolic; that is, its words and phrases represent the objects and concepts described. While this gives scope for the use of language in a multitude of situations with almost limitless contextual meanings, in an operational environment its inherent ambiguity compromises the need for the exact understanding that safety requires. The challenge of unambiguous communication becomes more problematic when radio communication involves non-native English-speaking controllers and pilots. Understanding how that is the case and why it makes conformity with standardized phraseology even more vital in international operations is important.

Words can be interpreted in different ways; this is the semantic barrier that complicates

**In the context of aviation operations, ineffective radio communication is a serious threat to safety.**

exchanges between men and women, engineers and musicians, soldiers and sports fans. No two people will take the same meaning from the use of any word, phrase or expression because everybody filters words through different belief systems, knowledge, cultural acquaintances and life experiences. Word meanings, therefore, are not absolute; meaning is subjective and a product of mind. It is worthwhile for pilots and controllers to remember that plain language is no more than representative of the things it describes and that words frequently mean different things to the speaker and the hearer.

With a closer understanding of the nature of language, its extraordinary powers and its distinct limitations, users of radio communications can be motivated to adhere more closely to ICAO standardized phraseology, knowing that it can mean only one thing in the context of its use. When standardized phraseology cannot be applied, pilots and controllers should take special care with enunciation, intonation and phrasing — and choose simple words that make messages unambiguous and concise.

The content of messages is not the only means of conveying sense in communication. For example, in face-to-face communication, body language speaks volumes, whether by facial expression, gestures, body posture or eye contact. Body language, in fact, has been found to convey 55 percent of message significance while words themselves convey only 7 percent. Tone of voice, too, is meaningful; it accounts for no less than 38 percent of message significance. Radio communication, however, is without body language prompts, and the electronically modulated voices of radio conversations rob speech of much of its expression.

In everyday life, the characteristics of language and the idiosyncrasies of communication cause many daily misunderstandings in casual conversations. The results are variously amusing, embarrassing and, sometimes, costly. In the context of aviation operations, however, ineffective radio communication is a serious threat

to safety; in urgent or emergency situations in particular, when pilots or controllers may be fatigued or stressed, the results can be deadly. This, again, is most problematic for non-native operatives.

Those of us who are native English speakers with non-native English-speaking friends know how difficult it is for them to both enunciate English words and put them in proper English grammatical context, even in everyday conversation. English-speaking controllers and pilots should consider how much more difficult it is for their non-English-speaking counterparts to “get the picture.” Under pressure or in an emergency, radio communication can quickly become compromised.

While the worldwide controller and pilot work force is committed to safety and efficiency of operations, there is sometimes a level of familiarity in the conduct of radio communication that belies this generally high level of responsibility. Being familiar in communication assumes a common culture; we use casual expressions and colloquialisms to enhance camaraderie among crews and controllers. But for unfamiliar crews and controllers, such culturally specific exchanges can be very isolating. They can reduce situational awareness and cause confusion among those who share the frequency but not the jargon. The potential consequences of misunderstandings are unacceptable.

The optimum strategy for safe communication is not to prescribe, coerce or threaten; it is to appeal to the innate responsibility of every controller and pilot to take the utmost care in communicating. When controllers and pilots better understand that language is an imperfect medium and is easily misinterpreted, they will be painstakingly accurate in their use of both standardized phraseology and plain language — and the airways will be safer because of it. ➤

*Brian Day was secretary of the international group that developed the ICAO language proficiency requirements and is now director of international business for Aviation English Services, based in Wellington, New Zealand.*

**The optimum strategy for safe communication is to appeal to the innate responsibility of every controller and pilot.**

InSight is a forum for expressing personal opinions about issues of importance to aviation safety and for stimulating constructive discussion, pro and con, about the expressed opinions. Send your comments to J.A. Donoghue, director of publications, Flight Safety Foundation, 601 Madison St., Suite 300, Alexandria VA 22314-1756 USA or donoghue@flightsafety.org.