**Words Can Kill In Miscommunication Between Pilot, Controller**

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NEW YORK - A turn of phrase. A clipped colloquialism. An awkward accent. In the exchange between pilots and air-traffic controllers, the confusion caused by a miscommunication can have deadly consequences.

It has contributed to at least two airline disasters, including the deadliest ever, and a language barrier is being investigated as a cause in last month's collision between a Saudi airliner taking off in New Delhi and an arriving Kazak cargo plane.

The communications problem has so frustrated pilots and air-traffic controllers around the world that a group of them are trying to devise a standardized phrase book.

"It's so important. No matter what you say, no matter where in the world you say it, you have to be able to be understood," said Capt. Tom Kreamer, who handles issues of safety and standards with the international and U.S. pilot associations.

Kreamer, a USAir pilot, said there are two issues: a standard language, and a standard choice of words within that language.

English serves as the de facto language of aviation worldwide. Some countries, like Holland, forbid the use of any language but English, but other countries, like France, allow the local language to be used between the ground and their national airline.

"This has been a complaint from pilots for a long time," said Edge Green, the executive secretary of the International Federation of Air Traffic Control Associations, based in England.

Kreamer said foreign exchanges can be unnerving because they can leave a pilot guessing about what's going on around his plane.

"I know where I am at any given time," he said. "If a controller speaks to another aircraft in another language, I have no way of knowing where that aircraft is and what it's going to do."

But even a common language isn't enough. For the past 18 months, a committee of pilots, air-traffic controllers and government officials has been trying to develop a standard set of aviation terminology.

"If you don't have a standard you have different pilots saying different phrases that mean different things," Kreamer said.

One American Airlines pilot, who asked not to be identified, said on his first trip into Paris, the controller instructed: "Cleared Orly 2-4."

"We just looked at each other and thought, `What is he talking about?' " the pilot recalled.

When they asked to have the instruction repeated, they were given the full, standard instruction that told them to go into a holding pattern on the flight path into Orly Airport and to expect clearance to land at 6:24 a.m.

Although most language barriers are quickly resolved, the 1990 crash of an Avianca jet in Cove Neck, N.Y., might have been averted but for a poor choice of words.

The plane went down, killing 73 people, when it ran out of fuel while circling the airport. The co-pilot, whose native language was Spanish, had told controllers: "We're running out of fuel." Had he declared a "fuel emergency" he would have been given priority to land.

Miscommunication was also blamed for the 1977 collision between a Pan American jet and a KLM jet at a foggy airport in Tenerife, Spain. The deadliest accident in aviation history, it killed 582 people.

The Pan Am jet was taxiing, and the KLM jet was asked to line up and wait. Instead of staying put until it got further clearance, the KLM tried to take off and struck the Pan Am flight.

The matter of determining proficiency with English is up to the licensing authority or civil aviation authority in any given country, Green said.

In addition, a standard set of phrases is recommended by the Montreal-based International Civil Aviation Organization. Compliance is optional.

A committee is reviewing commands in use around the world and plans to issue a new guidebook for the ICAO within two years. The hope is that in picking the best phrases, they will be followed more closely.

If approved terminology is not used, two phrases can sound very similar. For instance, a pilot, after being told to move into position on the runway and wait, should respond "position and hold." Instead, some U.S. pilots respond: "On the hold."

After being cleared for takeoff, a pilot should repeat: "Cleared for takeoff" but some say: "On the roll." "On the hold" and "on the roll" can sound alike to an air-traffic controller.

Barry Krasner, president of the National Air Traffic Controllers Association and a former controller in New York City, said communicating with a foreign pilot can sometimes be an arduous process.

"Communication becomes slower," he said. "You end up repeating . . . more."

But even English-speakers are not beyond reproach.

"I've had pilots ask me to slow down because they're from the South and didn't understand me as fast as I spoke," he said. ----------------------------------------------------------------- Is flight on hold or on the roll?

Pilots and air-traffic controllers might use different phrases or instructions in different countries.

A pilot being told to line up on the runway and be prepared for take off might be told:
-- Position and hold.
-- Line up.
-- Line up and wait.
-- Line up be ready for immediate departure.
-- Behind 727 on short final, line up behind.

A pilot being told to descend to 13,000 feet in altitude might hear:
-- Descend to 1-3-thousand.
-- Global Air 123 descend to and maintain 1-3-thousand.
-- Descend to level 1-3-0 .

A pilot might be told to switch to a different frequency by:
-- Change to 1-3-1 decimal niner-5 .
-- Change to 1-3-1-9-5 .
-- Change to 1-31-95 .

By not following approved terminology, two phrases can sound very similar, like "on the hold" and "on the roll."

A pilot, after being told to move into position on the runway and hold, should respond "position and hold." Some pilots respond: "On the hold." And in being given clearance for takeoff, a pilot should repeat: "Cleared for takeoff." Instead, some will respond: "On the roll."