

Plane Speaking

An Esperanto devotee says the synthetic language could save lives in the sky.

Author: Stefan Vilcins Date: September 5, 2003 Appeared in READER, Section 1 Word count: 2553

On December 20, 1995, an American Airlines Boeing 757 took off from Miami for Cali, Colombia. The flight was uneventful, but as the crew prepared for descent one of the pilots made a mistake. Intending to orient the flight management computer by the navigational beacon at Alfonso B. Aragon Airport, he locked onto the signal of another nearby beacon transmitting on the same radio frequency, putting the plane off course. "What happened here? It just doesn't look right," he said to his copilot moments later. "We got f*****-up here, didn't we?"

The air traffic controller at Aragon Airport instructed the pilots to fly toward the nearby town of Tulua, turn around, and begin a new approach for landing. Still disoriented, the pilot put the plane through a series of turns that set it on a collision course with the flank of an Andean mountain.

When the plane's ground-proximity warning system began to whoop, the flight crew had only 12 seconds to respond. "Oh s***, pull up, baby!" were among the last words recorded in the cockpit before the plane plowed into the thickly wooded mountainside, killing 160 of the 164 people aboard.

Investigators from the National Transportation Safety Board attributed the crash to a compounding sequence of pilot errors, beginning with the improper programming of the plane's navigational system and ending with the flight crew's failure to disengage the plane's speed brakes before attempting the emergency climb--a maneuver that might otherwise have enabled the plane to clear the mountaintop.

Kent Jones interprets the incident differently. There's no doubt in his mind that the crash was caused by the language barrier between the flight crew and the air traffic controller, a native Spanish speaker. Crash investigators acknowledge that communication between the cockpit and the control tower was less than perfect: according to testimony given by the NTSB chairman to Congress, the controller lacked "the English language fluency needed to probe the flight crew, from the subtle hints in the inconsistencies of their responses to him, to learn of the extent of their difficulties." But Jones goes further in characterizing the Cali disaster as part of a larger pattern of destruction resulting from the use of English as the international language of air traffic control. And for the last eight years he's been fighting a solitary campaign to persuade world aviation authorities to replace English as the lingua franca of the skies with the artificial language of Esperanto. "The beauty of Esperanto," he says, "is that it has only 16 basic grammar rules and it stays within those rules. English, on the other hand, is just a chaos of irregularity."

Since 1995 Jones, a 77-year-old retired civil engineer with a background in aviation, has been writing to the Federal Aviation Authority, the NTSB, the International Civil Aviation Organization, and other relevant institutions, urging them to consider the benefits of adopting Esperanto as the universal language of aviation. Frustrated by the lack of response, in November 2000 he sent a letter to the U.S. General Accounting Office, the investigative body charged with overseeing the government's use of public funds, to complain that his suggestions were being ignored by the FAA and the NTSB. "This reaction," he wrote, "appears to violate the U.S. Code, Title 49, which established the FAA [and] requires that safety be the top priority. Not maintenance of the comfortable status quo, not protection of American dominance of the aviation world, just enhancing safety. Pilot-controller language mistakes directly threaten flight safety."

Two weeks later, Jones received an answer from the GAO's director of Physical Infrastructure Issues, Gerald Dillingham, affirming the organization's interest in aviation language and declaring the issue to be "on our list of research that we intend to do as time and resources permit." It was one of the most responsive replies Jones had received, although more recently he has managed to extract a telephone call and an email from the office of Bruce Johnson, the FAA's Director of Air Traffic.

The walls of Jones's Lincoln Park living room are covered with an eclectic assortment of souvenirs--a fan from Korea, a hat from Uzbekistan, a calendar from Mongolia. Most of them are gifts from fellow Esperantists passing through town. Next to his computer stands a framed portrait of Dr. Ludwig Zamenhof, the Polish eye doctor who created the language of Esperanto in the 1880s as a means to further cooperation and goodwill among nations and ethnic groups. Once everyone in the world learned his simple, culturally neutral tongue, reasoned Zamenhof, a utopian age of mutual understanding would follow.

Estimates of the number of fluent Esperantists in the world today range from the thousands to the millions, though the higher numbers tend to come from Esperantist sources.

"A lot of people pick up the stick from the wrong end and think of Esperanto as a way to bring people from around the world together, which really isn't the case," says the 77-year-old Jones. "Esperanto will only become useful when it can be used to solve some of the vital problems of the world and right now, aviation is one of them. The daughter of mine who went to Harvard was classmates with a girl on that Colombian flight. You could say that's how I got involved in all this."

Jones's involvement in aviation dates back to 1944, when he served as an air traffic control technician in the navy. "I signed up at the end of the war so I could get more GI credit to go to college. My assignment wound up being in Hawaii at Barber's Point Naval Air Base. I was maintaining the electronic stuff for a radar unit called GCA, ground control approach, which was a trailer full of electronic gizmos and radios and radars."

After his tour of duty, Jones got a degree in civil engineering at Marquette University, then went to work for Convair in Fort Worth, Texas. "One of my jobs there was to design a bomb pod to go under the B-58 so it could deliver atom bombs.

After a while I got to thinking about that. Did mama Jones really produce me to help figure out how to drop an atom bomb on people? So it wasn't too long after that that I got a little disgusted with them and they got disgusted with me, and we parted ways."

Jones discovered Esperanto in 1963, while working as a product engineer for Southwest Petroleum in Fort Worth. A translation error in one of the firm's instruction manuals had recently cost it a \$30,000 fine in Germany, and Jones's first assignment was to review all of the company's translated literature to eliminate any further mistakes. "Well, that piqued my curiosity," says Jones. "We want to sell our stuff worldwide and yet we're at risk of dropping the ball between two well-known languages, English and German. How many other balls are we going to drop? I backed myself into asking, how many languages are there in the world anyway? I thought there must be quite a few, maybe 50 or, at the most, 100. But at the library the number I got was 2,970. Now they say it's about 6,000. Anyway, I couldn't imagine 2,900 translations. But there was this asterisk in the book, a note that said something about a language called Esperanto, the universal language. Bingo! The metric system of languages, I thought. And I became convinced that this is a good idea--better get going at it."

But Jones didn't begin learning Esperanto until 1968, by which time he'd moved to Chicago to work for the Metropolitan Water Reclamation District. "I made contact with the Esperanto Society here, and they told me about a man named Father Geirge Weust, who was giving Esperanto lessons at Loyola University on Wednesday nights, so I began going. About nine months along the way, a group of Japanese businessmen came to Chicago, one of whom spoke Esperanto. The Esperanto club asked me to be their representative, so I set up the meeting at the Conrad Hilton, and when I spotted him with his little Esperanto flag dangling from his valise I said, 'Me estas Kent Jones.' I don't remember the whole conversation, but we went into the coffee shop and sat there for two hours. He did at least 96 percent of the talking, but he understood me and I understood most of him. So I said, 'Whoopee, this stuff really works!'"

The father of ten children ("in honor of the metric system," he says), Jones passed on his knowledge of Esperanto to his youngest daughter, Sara Su, the future Harvardian. "When she was about 18 months old, wobbling around, she fell down on the floor in front of me, looked up, and solemnly announced, 'Me falis,'--'I fell,' perfect past tense. Those were her first words in life. Her little brain had a debate: How shall I break out my first words, in English or Esperanto? So Esperanto is her first language."

In 1974 Jones began to have trouble moving his legs properly and was subsequently diagnosed with multiple sclerosis. "By 1978 I was using a cane and by 1982 I was in a wheelchair," he says.

The onset of paraplegia turned him into a political activist. Frustrated by the difficulty of getting to work in a wheelchair and seeing that a Denver protest group called ADAPT (American Disabled for Attendant Programs Today) had successfully used the courts and techniques of passive resistance to get the city to retrofit buses with wheelchair lifts, Jones organized a Chicago chapter of ADAPT and set out to make trouble. "Around 1984 about 25 of us appeared at the intersection of State and Madison," he says. "Some helpers put a chain through our wheels, making us like a string of beads. It took the police about a half hour to clear the intersection. They kept saying, 'You wanna be arrested?' We said, 'OK.' So we all go over to the jail at 11th and State, only to find the cell doors weren't wheelchair accessible. They told us how bad we were and how we endangered traffic and released us on our own recognizance."

Jones also filed an antidiscrimination suit against the CTA in 1983. "For the next six years I spent a lot of time going to court and testifying and all that stuff. In the meantime we gummed up all the meetings we could at the CTA. We'd all get to the board meetings early and surround the table and ask, 'Are you going to buy buses with lifts, yes or no?'"

The CTA finally agreed to install lifts on all their new buses in 1989, two years before the passage of the Americans With Disabilities Act, which made wheelchair accessibility mandatory for public facilities nationwide.

Commuting by bus, Jones continued to work for the Water Reclamation District for another 12 years. Since retiring in 1996, he's dedicated himself to promoting Esperanto as the language of aviation. Presently he's at work translating the FAA's manual of 336 standard phrases, *pro bono publico*.

English was enshrined as the official language of international aviation in Chicago in 1944, at the first worldwide conference of the ICAO, a body created by the UN to set aviation standards and practices. But as Jones likes to point out, the language of the resolution is explicitly provisional: "Pending the development and adoption of a more suitable form of speech for universal use in aeronautical radiotelephony communications, the English language should be used as such and should be available, on request from any aircraft station...at all stations on the ground serving designated airports and routes used by international air services." Moreover, he says, the ICAO is merely an advisory body, with no legal powers to enforce the decision. In the U.S. the FAA requires pilots and controllers to be able to read, write, and converse fluently in English, but elsewhere compliance with the English-language rule is strictly voluntary.

To make matters even trickier, the FAA's glossary of terms has deviated over time from the ICAO's. The ICAO, for example, uses the term "passing" for what the FAA calls "leaving"--both mean "to depart the runway." The ICAO says "apron," "aerodrome," and "stop" where the FAA says "ramp," "airport," and "hold."

At minimum, Jones wants to see the two vocabularies minimized. But at his Web site (<http://www.hometown.aol.com/kentjones9/myhomepage/business.html>) Jones lists 12 structural shortcomings of the English language that further confuse nonnative speakers, including the irregularity of its pluralizations ("aircraft may be either singular or plural") and its abundance of homophones ("four and for") and opaque idiomatic expressions ("Can you make the runway?")

The same Web site lists 15 major air crashes since 1976 attributable, in Jones's opinion, to the defects of the "beautiful and dangerous" English language. One of his favorite examples is a 1977 runway collision between two 747s at Los Rodeos Airport in the Canary Islands. Jones believes the crash was precipitated by a Dutch pilot mixing English vocabulary with Dutch syntax while talking to a Spanish-speaking controller. Other accounts of the crash place equal or greater emphasis on the role of pilot error, radio interference, and the distracting influence of a soccer broadcast playing inside the control tower, but Jones expresses impatience with this kind of analysis. "Because the NTSB doesn't find a chunk of broken English in the debris field, it concludes that language was not a factor in crashes," he writes at the Web site. "It is easy to say that pilot error caused a crash. But why the error?"

While Jones's analyses of individual crashes are subject to dispute, the overall problem of language difficulties in aviation is undeniably real. In a report issued last October, the FAA enumerated 684 "aviation language errors" since 1975 and called for further study of the problem. Even before the report came out, a variety of solutions were being discussed in aviation circles.

The Air Line Pilots Association, an American pilots' union, has long spoken in favor of the official and legally binding adoption of English as the language of the air, followed by the imposition of stricter standards of fluency on pilots and controllers. Other experts have proposed the development of computerized code systems that would provide automatic translation in the cockpit and tower. Jones finds the latter notion interesting but half-baked. "Something like that would need to first be tested on psychological and cognitive grounds," he says. "It's a nice dream to think that we can automate our way out of this, but I don't think that's practical."

Despite the indifference of aviation authorities, Jones remains both determined and optimistic. "Old dogs have to learn new tricks," he says. "Otherwise you have to get new dogs. It's going to take two or three years to get all this done. During that time the pilots and controllers can busy themselves by learning the Esperanto language. Everybody will see that they can learn this language in a small fraction of the time it would take them to learn French or Chinese or anything else. We're talking about a language meritocracy here. Going to Esperanto is going to a language of demonstrated superiority for the purpose concerned. And who can object to that?"