



# Deterring **CRIMINALIZATION**

Aviation safety leaders face a growing challenge in dissuading prosecutors from filing criminal charges against pilots, controllers and others involved in aircraft accidents.

BY LINDA WERFELMAN

Criminal prosecutors are becoming increasingly eager to press charges against pilots, air traffic controllers and other aviation professionals involved in aircraft accidents, and that eagerness is a growing threat to flight safety, says Flight

Safety Foundation President and CEO William R. Voss.

“The safety of the traveling public depends on encouraging a climate of openness and cooperation following accidents,” Voss said. “Overzealous prosecutions threaten to dry up vital

sources of information and jeopardize safety.”

In addition to major cases that have generated worldwide attention — for example, the Air France Concorde that crashed into a hotel after takeoff from Charles de Gaulle Airport in Paris in



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**“On one hand, we’ve got to be vigorous about protecting safety information, but on the other hand, we can’t put ourselves ahead of justice.”**

2000 and the Gol Linhas Aéreas Boeing 737-800 that crashed in the Amazon after a midair collision with a business jet in 2006 (see “Cases of Criminalization”) — dozens of lesser known cases also have been developed in jurisdictions around the world, he said.

“Every time you ask, there are two or three more cases,” Voss said.

The most recent high-profile case involves the arrest in early February of the captain of a Garuda Indonesia 737 that overran the runway on landing in Yogyakarta and burned on March 7, 2007, killing 21 of the 140 people in the airplane and leaving 12 others with serious injuries (ASW,

1/08, p. 42). The Indonesian National Transportation Safety Committee (NTSC), in its final report on the accident, said that the causes were ineffective flight crew communication and coordination, the crew’s failure to reject the unstabilized approach, the captain’s failure to act on both his copilot’s calls for a go-around and repeated alerts from the airplane’s ground-proximity warning system (GPWS), the copilot’s failure to take control of the airplane, and the absence of pilot training by the airline on required responses to GPWS alerts and warnings.

The captain could be sentenced to up to seven years in prison if he is convicted of the charges against him, including manslaughter and violating aviation law. His arrest was denounced by the Garuda pilots association as “unlawful.”<sup>1,2</sup>

The Garuda pilots group, along with the International Federation of Air Line Pilots’ Associations (IFALPA), said that, although the NTSC had issued what it called a final report, the report was incomplete and that further investigation is required to identify all factors that contributed to the accident.

“Unless this is done, there is little possibility that aviation safety in the area of crew performance can be improved by the lessons of this accident,” IFALPA said. “Clearly, a criminal prosecution at this time may well foreclose further investigation for safety purposes.”

Published reports have said that Indonesian police have been conducting a criminal investigation that has not relied on the findings of the NTSC report, issued late in 2007. The reports said that, when the case goes to trial, NTSC officials could be called to testify as expert witnesses but that the accident report cannot be used in court.<sup>3</sup>

Voss said that proponents of aviation safety “can’t say, just because it’s aviation, that the justice department doesn’t have the right to pursue an independent investigation, as long as it doesn’t compromise safety processes or critical safety information.

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## Cases of Criminalization

The following are examples of dozens of cases in which pilots, air traffic controllers, civil aviation regulators and officials of aviation companies have been accused or convicted of criminal activity in connection with an aviation accident:

**Jan. 20, 1992** — An Air Inter Airbus A320 was being flown on a VOR/DME (VHF omnidirectional radio/distance measuring equipment) instrument approach to Strasbourg, France, in night instrument meteorological conditions when it struck a snow-covered mountain ridge.<sup>1</sup> The impact was just below the top of the ridge and on the extended runway centerline. There was no indication of any problem before the crash, and the flight crew had complied with standard procedures until the airplane began descending at 3,300 fpm — instead of 700 fpm — to the Strasbourg VORTAC, 2 nm (4 km) from the airport.

In 2006, one air traffic controller and five current and retired aviation officials of Airbus, the French civil aviation authority and Air Inter — a subsidiary of Air France that since has been incorporated into the airline — were tried in criminal court on charges of involuntary manslaughter and acquitted. Airbus and Air France were found liable for the pain and suffering of the victims' families, but the court did not determine how much the two companies should pay, leaving that decision to a subsequent trial.<sup>2</sup>

**May 11, 1996** — A ValuJet Douglas DC-9 crashed in Florida's Everglades about 10 minutes after takeoff from Miami International Airport, killing all 110 people in the airplane. The U.S. National Transportation Safety Board said that the accident resulted from a cargo compartment fire that began with the actuation of oxygen generators that were improperly carried as non-revenue cargo. Probable causes were the failure of a contract maintenance firm to properly package and identify the oxygen generators, ValuJet's failure to properly oversee its contract maintenance program for compliance with hazardous materials practices and the U.S. Federal Aviation Administration's failure to require smoke detectors and fire suppression systems in Class D cargo compartments.<sup>3</sup>

Two months after the accident, SabreTech, the contract maintenance firm that had handled the oxygen generators, and three of its employees were indicted on criminal charges. A jury acquitted the three mechanics; SabreTech was convicted and ordered to pay US\$2.9 million in fines and restitution. An appeals court overturned the convictions in 2005.<sup>4</sup>

**July 25, 2000** — An Air France Concorde burst into flames during takeoff from Charles de Gaulle Airport in Paris and crashed into a nearby hotel, killing all 109 passengers and

crew and four people on the ground. The French Bureau d'Enquêtes et d'Analyses (BEA) said that the probable causes of the crash were the passage of a Concorde tire over a part lost by an aircraft that had departed earlier, the "ripping out" of a large piece of the fuel tank and the ignition of the leaking fuel.<sup>5</sup>

In 2006, France's highest court refused to dismiss criminal charges against a former official of the French civil aviation authority and two former officials of Aerospatiale, the company that built the Concorde. Aerospatiale was one of three companies that merged in 2000 to form the European Aeronautic Defence and Space Co. (EADS). Continental Airlines, the operator of the DC-10 that investigators said dropped a titanium metal strip on the runway, also has been placed under investigation in the matter.<sup>6</sup> A trial is not expected before 2009.

**Sept. 29, 2006** — A Gol Linhas Aéreas Boeing 737-800 crashed into the Amazon after a midair collision with an ExcelAire Embraer Legacy 600 business jet.<sup>7</sup>

All 154 people in the 737 were killed, and the airplane was destroyed. The Legacy's crew maintained control of their damaged airplane and conducted an emergency landing at a Brazilian air base; none of the seven people in the business jet was injured. A Brazilian military investigation of the accident was continuing, but preliminary findings indicated that the two airplanes had been assigned to the same flight level and that air traffic control (ATC) stopped receiving signals from the Legacy's transponder nearly an hour before the collision. Radio communications between the Legacy and ATC had been interrupted until about four minutes before the accident, when the crew heard an ATC call telling them to change radio frequencies but received no response to their request for clarification.

The Legacy pilots were detained in Brazil for two months after the accident. In June 2007, the pilots and four air traffic controllers were ordered to stand trial for "exposing an aircraft to danger."<sup>8</sup> At press time, the trial had not begun. A subsequent report by the military investigators said that five military controllers were among those responsible for the crash and that "crimes were committed" that could result in the controllers' imprisonment, suspension or discharge. The report also criticized the Legacy pilots for "contributing to the accident by action or omission."<sup>9</sup>

— LW

### Notes

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2. Clark, Nicola; Phillips, Don. "6 Acquitted in Crash of French Jet in 1992." *International Herald Tribune*. Nov. 7, 2006.

3. U.S. National Transportation Safety Board. *Aircraft Accident Report: In-Flight Fire and Impact With Terrain, ValuJet Airlines Flight 592, DC-9-32, N904VJ, Everglades, Near Miami, Florida, May 11, 1996*. NTSB/AAR-97/06.
4. Prentice, Stephen P. "Justice Delayed: USA vs. Sabre Tech." *AMT Online*. Aug. 24, 2005. <[www.amtonline.com/online/printer.jsp?id=1183](http://www.amtonline.com/online/printer.jsp?id=1183)>.
5. FSF Editorial Staff. "Foreign-Object Damage Cripples Concorde on Takeoff From Paris." *Accident Prevention* Volume 59 (April 2002).
6. Associated Press. "Paris Court Paves Way for Concorde Trial." *AP Online*. Sept. 22, 2006.
7. U.S. National Transportation Safety Board. Factual report no. DCA06RA076A.
8. Wald, Matthew L.; Downie, Andrew. "2 American Pilots Are Indicted in Brazilian Airliner Crash." *The New York Times*. June 2, 2007.
9. Downie, Andrew. "Brazilian Air Controllers Partly Responsible for Crash, Inquiry Finds." *The New York Times*. Oct. 3, 2007.

the other hand, we can't put ourselves ahead of justice."

Capt. Stephanus Geraldus, president of the Garuda pilots association, agreed, adding, "We are not against holding pilots accountable if there is a case to answer. But we want everything to follow international standards." That is "not the case here," he said.<sup>4</sup>

Standards set forth by the International Civil Aviation Organization (ICAO) say that discipline or punishment for people involved in an aviation accident or incident is appropriate only if evidence shows that the occurrence "was caused by an act considered, in accordance with the law, to be conduct with intent to cause damage, or conduct with knowledge that damage would probably result, equivalent to reckless conduct, gross negligence or willful misconduct."<sup>5</sup>

ICAO also says that the only objective of an accident or incident investigation should be to prevent future accidents and incidents, not to determine blame or liability of anyone involved in the occurrence — and, international aviation leaders say, not to supply data to criminal prosecutors.

"In situations of gross negligence or malfeasance, the judicial authorities need to pursue their own, separate investigation," Voss said. "The lives of

future passengers depend on the vital safety information that is gathered during an accident investigation. If there is fear of prosecution, then the parties involved will be less inclined to be open during this investigation process."

The same sentiments were expressed in an October 2006 resolution approved by Flight Safety Foundation, the Royal Aeronautical Society, the Académie Nationale de l'Air et de l'Espace and the Civil Air Navigation Services Organisation.

The resolution said, "The paramount consideration in an aviation accident investigation should be to determine the probable cause of and contributing factors in the accident, not to punish criminally flight crews, maintenance employees, airline or manufacturer executives, regulatory officials or air traffic controllers. By identifying the 'what' and the 'why' of an accident, aviation safety professionals will be better equipped to address accident prevention for the future. Criminal investigations can and do hinder the critical information-gathering portions of an accident investigation, and subsequently interfere with successful prevention of future aviation industry accidents."<sup>6</sup>

In the months since approval of the resolution, prosecutors generally have

become less likely to file charges against "people on the line," Voss said. Instead, the emphasis appears to have shifted to managers who were accountable for failed systems, he said.

"This is more consistent with what we talk about in good safety practices — the concept of accountable executives," he said. "However, it does still have a little bit of a chilling effect because it makes people in executive positions uncomfortable. ... It's a thing that's hard to celebrate, but you also have to acknowledge that it probably reflects an emerging understanding of safety issues on the part of prosecutors."

In addition, he noted that the government agencies that investigate accidents have become increasingly likely in recent years to cite weak safety practices or safety cultures within aviation organizations among the causes, or contributing factors, of accidents.

Capt. Paul McCarthy, IFALPA's representative to ICAO, said that in cases in which aviation personnel have been prosecuted for negligence, judges and juries often have been reluctant to convict.

"There is recognition that it is fundamentally wrong to convict someone criminally for trying to do their job," McCarthy said. "We have several examples where pilots have been acquitted.

In each case, the pilot was attempting to respond to either a malfunction or highly unusual circumstance and got it wrong. Where there have been convictions, the circumstances have been far more political than legal.”

Nevertheless, prosecutors often respond to the public’s calls for retribution after an accident, he said.

Voss theorized that this trend may be associated with the public’s increased desire for accountability in many areas of industry — not just in aviation.

“The whole issue of corporate accountability, both in the United States and in Europe, has become very large in the public psyche, and I think that’s partially feeding some of this,” Voss said.

For example, a Swiss court in September 2007 convicted four middle-level managers of Skyguide, the Swiss air navigation services provider, of negligent homicide in the midair collision of a Bashkirian Airlines Tupolev Tu-154M and a DHL Boeing 757 on July 1, 2002, near Überlingen, Germany. The same court acquitted four others, including air traffic controllers and technicians.<sup>7,8</sup>

After the verdict, the International Federation of Air Traffic Controllers (IFATCA) said that, although it was encouraged that the court had recognized that accountability was expected at all organizational levels, it nevertheless was “troubled ... by criminalization of so-called human errors, whomever these errors may be attributed to. ...

“IFATCA believes that all personnel should be held accountable for their decisions and actions in a safety-critical system. However, experience has shown that criminal prosecution makes no contribution to improving system safety.”

In the future, McCarthy said in a presentation to a 2007 ICAO regional

seminar, the public likely will continue to demand punishment of aviation professionals who are involved in accidents and incidents. Nevertheless, the public sentiment cannot be permitted to override “the fundamental principle that punishment does not improve safety” because the threat of punishment — which may deter intentional acts — has no effect on unintentional errors that lead to accidents, he said.

Actions that *do* improve safety include accident investigations, mandatory safety reporting schemes, voluntary reporting schemes, and flight operational quality assurance (FOQA) programs and similar data analysis programs, all predicated on a “just culture” — defined by ICAO as a culture that recognizes that personnel should freely share critical safety information without fear of punishment while also accepting that, in some instances, there may be a need for punitive action.

“If this standard is met for these [reporting] programs, it is almost certain that the prosecutorial standards will be limited to intentional acts,” McCarthy said.

Emphasis on establishing a just culture within aviation organizations, in addition to avoiding the criminalization of accidents, is paramount, Voss agreed.

He said that, “for the sake of safety and a just culture, safety investigators, plus those who are being investigated, must have complete confidence in the integrity of the process.”

Achieving that trust will be difficult, he said, noting that the public and government officials frequently favor prosecution of those involved in accidents.

“We need to be realistic,” Voss said. “We’re not going to get major changes in regulations, and we’re not going to change any constitutions. We need to

just talk to prosecutors so that they can do a better job of balancing the rights of individuals that are compromised as a result of an accident versus the needs of the public.” ●

## Notes

1. Fitzpatrick, Stephen. “Garuda Crash Pilot Facing Jail.” *The Australian*. Feb. 5, 2008.
  2. International Federation of Air Line Pilots’ Associations (IFALPA). *IFALPA Daily News*. Feb. 5, 2008.
  3. Fitzpatrick.
  4. IFALPA.
  5. International Civil Aviation Organization (ICAO). Annex 13, Attachment E.
  6. “Joint Resolution Regarding Criminalization of Aviation Accidents.” *AeroSafety World* Volume 2 (January 2007): 13–14.
  7. International Federation of Air Traffic Controllers’ Associations. *Press Release*. Sept. 17, 2007. <[www.ifatca.org/press/170907.pdf](http://www.ifatca.org/press/170907.pdf)>.
  8. After the collision, crews of both the Bashkirian Tu-154M and the DHL 757 lost control and the airplanes crashed, killing all 71 people aboard. Fifty seconds before the collision, the traffic-alert and collision avoidance system (TCAS) in each airplane warned of traffic. As ATC told the Tu-154 crew to descend, on-board TCAS resolution advisories (RAs) told the Tu-154 crew to climb and the 757 crew to descend. Both crews descended. At the time of the accident, a single Skyguide controller was on duty. Twenty months after the accident, the controller was stabbed to death at his home by the father of two children who had been passengers on the Tu-154.
- The German Federal Bureau of Aircraft Accidents Investigation, in its final report on the accident (AX001-1-2/02), said that the immediate causes were that the “imminent separation infringement” was not noticed in time by ATC and that the Tu-154 crew followed ATC instructions to descend “even after TCAS advised them to climb ... contrary to the generated TCAS RA.”