

A Code Shared Accident

A television documentary finds the roots of the Colgan Air Flight 3407 accident in the changed structure of the U.S. airline industry.

AUDIO-VIDEO

Regionals Under Scrutiny

Flying Cheap

Frontline. WGBH Boston. Producers: Rick Young and American University School of Communication, Investigative Reporting Workshop. Aired by Public Broadcasting System (PBS), Feb. 9, 2010. 56 minutes. Available on the Internet as a video, audiocast and DVD at <www.pbs.org/wgbh/pages/frontline/flyingcheap>.

For those who did not view the *Frontline* program, “Flying Cheap,” when it aired on U.S. television, PBS has made it available on the Internet. The video and its full-text transcript may be viewed and read online at no charge.

The program is also available for purchase as a DVD or as a free downloadable audio podcast.

The introduction to “Flying Cheap” says, “One year after the deadly airline crash of Continental [Connection Flight, operated by Colgan Air] 3407 in Buffalo, New York, U.S. *Frontline* investigates the accident and discovers

a dramatically changed airline industry, where regional carriers now account for half of the nation’s daily departures. The rise of the regionals and arrival of low-cost carriers have been a huge boon to consumers, and the industry insists that the skies remain safe. But many insiders are worried that now, 30 years after airline deregulation, the aviation system is being stretched beyond its capacity to deliver service that is both cheap and safe” (see “Startled and Confused,” p. 20, and “Mutual Aid,” p. 26).

According to the program, the “code sharing” sales and marketing relationship between the regionals and the major carriers is a cause for concern.

The program includes interviews and discussions with a number of individuals who play significant roles in the commercial aviation industry, including William R. Voss, president and CEO, Flight Safety Foundation (FSF); John Prater, an airline captain and president, Air Line Pilots Association, International (ALPA); Roger Cohen, president, Regional Airline Association; former Colgan pilots; and former and current officials of the U.S. Federal Aviation Administration (FAA) and the U.S. National Transportation Safety Board (NTSB). There are also interviews with family members of accident victims.

The video is formatted into six discussion topics.



“The Harrowing Crash of Continental 3407” gives an overview of the flight and begins to address issues identified in the NTSB hearings and investigation. Clay Foushee, investigator for the U.S. Congress, says, “[The accident has] become a symbol of everything that’s wrong with the industry.” Foushee and the narrator refer to it as a “watershed accident.”

Corey Heiser, a Colgan Air pilot from 2005 to 2009, says, “We are only paid when the door’s closed and the engines are running. ... We may be on duty for 80 hours a week and get paid for 20 of it, if we’re lucky.” The narrator and reporter, Miles O’Brien, says, “Low pay and high living costs have created an underground housing market in the airline industry.” Chris Wiken, a former Colgan Air pilot, says that “you can picture a one- and two-bedroom apartment with eight, 10, 12, 14 guys in it, on roll-out mattresses and sleeping on the floor, sleeping on the couch, sleeping in bunk beds, air mattresses, waiting in line for the shower.” Such quarters are known colloquially as “crash pads.”

Roger Cohen, speaking for the Regional Airline Association, responds: “Let’s get the facts out on the table on this, Miles. The average salary for a regional airline captain is \$73,000. The average salary for a first officer at a regional airline is about \$32,000, \$33,000 a year.” To O’Brien’s suggestion that regional airline pilots paid less than the average are in “an untenable position economically,” Cohen replies, “Absolutely not, because there are many other people who earn less money than that, who work more days in these communities, that can afford it ... and do it responsibly.”

“Growth of Regional Airlines” describes Colgan Air’s growth from a fixed-base operator to a charter company and, with deregulation of the airline industry, to a regional carrier. An explanation of changes in the industry’s business model, the hub-and-spoke concept and development of code sharing leads to a discussion about financial pressures facing airlines. “The major airlines created regional airlines as

a way of controlling costs,” Prater says. (Voss commented on cost controls and safety in ASW, 2/10, p. 1.)

“The Life of a Regional Pilot” peers into the lives of regional pilots in which the workload is challenging, days are long, lengthy commutes to work are the norm, hourly pay is low, and time on duty does not correspond to time paid, according to the program.

“Who’s Responsible for Safety” says, “Some major airlines don’t take responsibility for safety of their regional partners — they rely on the FAA. Is that agency up to it?” Congressional hearings raised questions about who takes responsibility for safety — major airlines or their contractual regional airlines. Questions about the FAA’s mandate and its relationship with the airlines it regulates are explored.

“A Decade of Missed Warning Signs” reveals documents, interviews and conversations intended to support the program’s assertion that “the FAA was aware of significant and repeated safety concerns at Colgan Air” and raises questions about safety culture within the airline.

“Raising Safety Standards at Regionals” discusses government and industry recommendations and public comments that have resulted from the accident about pilot training and qualifications, pilot work rules, best practices, audits and other safety issues. (Additional information about the FAA’s “call to action” plans appear in ASW, 2/10, p. 36.)

The video is accompanied by a companion Web site produced by WGBH and contains several special features that are not included in the program, such as two short videos about work hours, rest/fatigue issues and operational pressures on pilots of regional carriers. There are expanded interviews with regional pilots, government regulators, industry representatives, family members of victims, and others. A map of regional airlines flying into and out of major U.S. airports displays airline safety records.

An online discussion includes extended consideration of the issues raised by the Colgan

‘The major airlines created regional airlines as a way of controlling costs.’

Air Flight 3407 crash. Participants include Chris Wilken, former Colgan pilot; Loretta Alkalay, former FAA regional counsel; Mary Schiavo, former inspector general, U.S. Department of Transportation; Scott Maurer, father of Lorin Maurer, who was killed in the accident; and Rick Young, writer, producer and director of “Flying Cheap.”

For readers unfamiliar with PBS or *Frontline*, the corporate facts section provided on the PBS Web site, <www.pbs.org>, says that “PBS is a private, nonprofit corporation, founded in 1969, whose members are America’s public TV stations.” Programs distributed to PBS member stations for broadcast are produced “by PBS stations, independent producers and other sources around the world. PBS does not produce programs.”

Frontline is produced by WGBH, <www.wgbh.org>, a Boston public media network, and describes itself as “the only regularly scheduled long-form public affairs documentary program series on American television.” It provides “engaging documentaries that fully explore and illuminate the critical issues of our times,” the Web site says.

— Patricia Setze

REPORTS

Oversight Overlooked

FAA’s Oversight of American Airlines’ Maintenance Programs

U.S. Department of Transportation, Office of Inspector General (OIG). AV-2010-042. Feb. 16, 2010. 27 pp. Figures, exhibits, appendix. Available via the Internet at <www.oig.dot.gov/library-item/5268>.

“American Airlines, one of the world’s largest passenger airlines, has not experienced a fatal accident in eight years,” the report says. “Despite this safety record, we received a complaint in February 2008 alleging that the overall operational reliability of the airline’s aircraft had diminished and that previously reliable aircraft systems were regularly failing. Specifically, the complaint included 10 maintenance-related allegations and highlighted several incidents, including three flights that the complainant alleged had experienced cockpit windshield failures.”

Additional maintenance-related complaints were submitted.

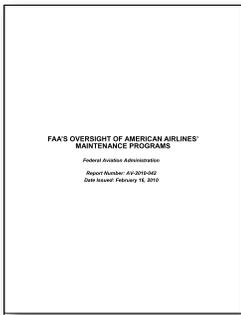
In response, the OIG audited the U.S. Federal Aviation Administration’s (FAA’s) oversight of American Airlines’ maintenance program between June 2008 and December 2009. The audit work was performed at FAA headquarters and the FAA Certificate Management Office (CMO) for American Airlines in Fort Worth, Texas. FAA inspectors and analysts were interviewed, as were officials at American Airlines headquarters.

“FAA’s oversight of American Airlines’ maintenance program lacks the rigor needed to identify the types of weaknesses alleged by the complainant — at least four of which were confirmed and have potential safety implications,” the report says.

“First, we confirmed the allegation that American Airlines’ maintenance-related events have increased,” the report says. “Further, the National Transportation Safety Board (NTSB) recently found that American’s Continuing Analysis and Surveillance System (CASS) — a system intended to monitor and analyze the performance and effectiveness of a carrier’s inspection and maintenance programs — failed to detect repeated maintenance discrepancies, which, if found, could have prevented an in-flight engine fire that occurred in September 2007.”

According to the report, in the 13 days prior to the accident involving American Airlines Flight 1400, the aircraft’s left engine air turbine starter valve had been replaced six times because of an engine-start problem, but to no avail. The report says that the issue was not recognized by the airline’s CASS personnel.

“While we did not identify any immediate safety-of-flight issues, our analysis of maintenance-related incidents at American Airlines found that the carrier’s overall operational reliability has decreased since 2004, which increases the risk of serious incidents,” the report says. “The rate of operational events across all fleets — including cancellations, in-flight diversions and other delays — rose from 3.9 events per 100 departures in January 2004 to 5.8 events per 100 departures in December 2008.”



The OIG confirmed the allegation that maintenance deferrals had increased significantly. “From 2004 through the first five months of 2008, American’s number of open maintenance deferrals increased by 32 percent, from an average of 298 per day to an average of 394 per day,” the report says. “Despite this increase, FAA only tracked the number of deferrals but did not identify the types of aircraft parts being deferred or the causes of the deferrals.”

The report adds that from January 2007 to the end of the study period, the airline submitted at least 13 self-disclosures concerning improper use or issuance of minimum equipment lists (MELs). Examples included deferring maintenance on a navigational component that was not listed in an MEL, which therefore could not legally be deferred.

The audit also “confirmed the allegation that American was not following procedures for required maintenance inspections. We found that FAA has not taken appropriate action to address American’s longstanding failure to comply with required maintenance inspection procedures.”

The report cites the FAA’s failure to force American Airlines to comply with procedures for required inspection items (RIIs): “American has a history of noncompliance with RII requirements. For example, in 2007, American self-disclosed nine noncompliances — three disclosures involved expired technician qualifications, and six disclosures related to RII inspections that were not conducted.”

In May 2006, a System Analysis Team (SAT) formed of FAA and airline representatives made 35 recommendations, including promptly notifying employees whose qualifications were about to expire. “Despite the SAT’s numerous recommendations, we confirmed the allegation that an American Airlines technician with an expired authorization performed an RII inspection on the fire-damaged MD-80 [from the September 2007 engine fire] after mechanics had performed significant repairs on the aircraft,” the report says. “American did not discover the RII noncompliance until the aircraft had been returned to service and

was at a gate ready to depart with passengers.” According to the report, American Airlines officials said that by December 2009, the airline had implemented all but one SAT recommendation; that recommendation was to be implemented in April 2010.

The report says, “According to FAA’s principal maintenance inspector, FAA will continue to monitor American’s compliance with RII requirements until it is satisfied that a long-term corrective action is in place. To date, however, FAA’s actions have not elicited confidence that its oversight is sufficient. For example, in response to the RII allegation, the CMO assigned one inspector to review only one MD-80 aircraft — even though the MD-80 fleet is American’s largest, with 279 aircraft.”

Finally, the report said, “We confirmed the allegation that American did not implement a Boeing service bulletin alerting carriers to problems with aircraft windshield heating systems that could cause the windshield to crack or shatter if left uncorrected.”

The service bulletin, issued in 2006, concerned the Boeing 757 and instructed air carriers on how to correct the problem, which if not attended to could cause a component to overheat, possibly leading to smoke in the cockpit and a cracked or shattered windshield.

“Although American took steps to implement the inspections, neither FAA nor the carrier ensured the mechanics performed the work,” the report says. “For example: The engineer responsible for drafting the engineering change order — which is required to issue work cards to mechanics — left the company, and the order was never released. Without the order, American personnel could not issue work cards instructing mechanics to perform the work.”

The report points out that the service bulletin was not a requirement, and even had it been followed, correcting the identified problem would not have prevented a January 2008 incident as the complainant alleged. In that incident, a 757 crew made an emergency landing after the cockpit filled with smoke, and the

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inner pane of the copilot’s windshield shattered, blocking visibility.

“However, service bulletins often highlight safety issues that lead to the issuance of an airworthiness directive,” the report says. “While an airworthiness directive has not been issued, Boeing stated that the bulletin did have safety implications based on prior incidents and that all carriers were expected to comply.” The report adds that “since the January 2008 incident and subsequent February 2008 allegations, American and FAA have initiated or taken actions to address windshield heating system concerns.”

The FAA assembled an internal assistance capability (IAC) team to review independently the February 2008 allegations and the CMO also conducted a review. “However, neither review was comprehensive,” the report says.

The OIG recommends that the FAA:

- “Begin a review of American’s CASS and reliability system to ensure that problems are identified and needed improvements are made;
- “Conduct comprehensive inspections of the allegations regarding operational reliability, MELs, RII requirements and windshield inspections;
- “Improve data analyses by requiring the CMO analyst and inspectors to regularly and thoroughly review available operational reliability data, track the types of maintenance items that are deferred, closely monitor trends in maintenance deferrals, and identify reasons for any significant negative changes in reliability or increases in deferrals;
- “Issue the proposed airworthiness directive that would require implementation of the Boeing service bulletin on repairs to windshield heating components on 757s;
- “Improve the independent review process by (a) performing verification work at air carriers rather than just reviewing FAA inspection records and ensuring that the review results are shared with the office under

review, [and] (b) coordinating all safety-related independent reviews conducted using the IAC process through its new Office of Audits and Evaluations; [and,]

- “Determine why FAA’s oversight did not identify the weaknesses discussed in this report and whether these are agency-wide issues or limited to American’s CMO.”

The FAA concurred with the first five recommendations and partially concurred with the last.

— Rick Darby

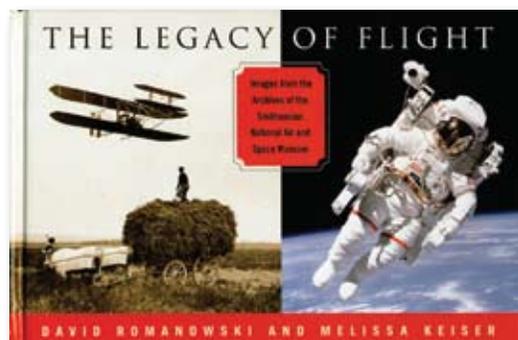
BOOKS

It’s a Snap

The Legacy of Flight: Images from the Archives of the Smithsonian National Air and Space Museum

Romanowski, David and Melissa A.N. Keiser. Piermont, New Hampshire, U.S.: Bunker Hill Publishing, 2010. 288 pp. Photographs, index.

Photography was well established by the beginning of powered aviation, and the camera has served the historical record. Early “flying machines” were sensational enough to attract the attention of any photographer who happened to be nearby, and many photographers ever since have found that aviation offers dramatic subjects.



The Legacy of Flight includes 132 photographs that illustrate flight’s development, through peace and war, into the space age. The emphasis is on people — both famous and anonymous — as much as the equipment. An accompanying page of text offers commentary about each photo. ➤

— Rick Darby