

SAFETY – 737 United 585 – March, 1999 History

March 23-24, 1999, NADA/F released a Press Release asking the Safety Board to release and endorse a probable cause for US427 and UA585, both 737 crashes, and to publish the full 500-page 737 report, so that the safety recommendations could move forward.

We referenced pilot records that showed that the airline and industry knew of the rudder anomalies for over 30 years. We referred to Carl Vogt's statements in his November 10, 1992 letter that had been kept secret for too many years. We urged government and industry to work together and move forward with the needed 737 retrofit to remedy the fatal rudder flaw.

Results. Thank you to the NTSB Chair Jim Hall, and Board Members in the late 1990's who responded to family members "need to know" and showed that the NTSB can be the best in the world at aircraft investigation. From the first NTSB "meeting" December 1992 about UA585, until 1999 the NTSB had new board members who showed their genuine concern for family members. They understood our "need to know," the need for transparency and disclosure of the TRUTH, and this is what made the difference.

As we approached the March 23-24, 1999 NTSB Public Hearing I wanted to leave "no stone unturned" so for the 8th memorial I prepared the following summary. Many of the facts stand today as the wrong way to approach an air crash investigation.

MARCH 3, 1999 - UNITED 585 - 8TH MEMORIAL PUBLIC COMMENTS OF GAIL A. DUNHAM –

Eight years ago today at 9:43 AM United flight 585, a Boeing 737-200, was approaching Colorado Springs to land when it flipped upside down and went into the ground like a rocket. Within seven seconds 25 wonderful people were gone.

Eight years later the National Transportation Safety Board (NTSB) has failed to publish a mechanical "probable cause" for UA585, and eight years later the 737 still has rudder problems. For eight years the industry has investigated itself, and enough is enough, the Safety Board owes the American people and us a full report of why there were 25 deaths in Colorado Springs in 1991. We want to see a full report explaining why UA585 crashed and we are asking the NTSB to issue a long overdue "probable cause" for the 737 crashes in Colorado Springs and Pittsburgh." The Safety Board should promptly release all information including the 400-page 737 report that has been in draft form for years. Publish the findings now, so that scientists and professionals from "outside" the industry can analyze all the UA585 data, speculation, tests, and internal memos between the industry and government.

We are asking the Federal Aviation Administration (FAA) to direct the airlines to complete the following 737 consolidated Airworthiness Directives that were announced January 1997:

- Re-design of the 737-servo valve on or before the required completion date of August 1999. The NTSB reported December 1992, that the design phase of the 737-servo valve retrofit had been completed. The years of delays should not continue. If the industry still doubts their own recommendations after 8 years, than it is even more important to release the 400 page 737 report.
- Completion of the 737 limiter before August 2000. This AD was announced over two years ago and the installation work has not begun.

The FAA only implements 82.5% of the NTSB fatal air crash safety recommendations, and there are 43 items in "Open Unacceptable Response" status.

We support the Safety Board request since 1991 that the FAA mandate upgraded flight data recorders in all 737's. The FAA should issue a new Final Ruling Requiring Increased Parameters for Flight Data Recorders on 737's effective on or before December 31, 1999. Upgraded recorders must be installed before 2002. Passengers should not be forced to wait ten years for safety equipment that only costs \$3,000 to \$5,000 per aircraft by FAA estimates.

In the U.S. we have not had a 737 catastrophic accident since Pittsburgh, September 1994, however, the 737 rudder problems at a low altitude could produce another UA585 or USAir 427.

Recently the 117 passengers on USAir Metrojet were lucky and walked away from their emergency landing. Our loved ones were not so lucky.

Disclosure of the following would re-assure the Families of UA585 that everything is being done to determine a cause of the UA585 crash:

- Publicly ask NTSB and independent investigators: "What is the probable cause of UA585?"
- Explain the disappearance of the servo valve, spring and cap for so many years.
- Disclose the "737 In Service Activity Reports" dated May 8, 1986. This 12-year-old report lists prior 737 incidents of reported rudder anomalies. Additional "In Service Activity Reports" should be disclosed which are reported to include 40-60 rudder anomaly reports per year.
- Disclosure of the records of the 737 "Expert Panel" which convened from March 1996, to January 1997.
- Disclosure of Safety Board Member John Lauber's flights on the United 737 simulator just after the UA585 crash, which are reported to conclude that a rudder hardover was possible.
- Explain the NTSB "Letter of Reprimand" sent to United Airlines August 4, 1992, for conducting private tests on an errant 737 rudder for almost three weeks during July 1992; and take action against those who operated secretly outside of the federal investigation, while a party to the investigation.
- Show us the internal contamination from the power control unit from UA585.
- The Public Docket may contain 18,000 pages of data; however, the "Letter of Reprimand to United Airlines," and the November, 1992 NTSB letter could not be found when I requested them. We ask that everything pertinent to 737's be made part of the Public Docket.

The Safety Board has scheduled a meeting on March 23-24, 1999, to discuss the 400-page 737 report, with plans to release the report in April 1999. Considering the recent rudder anomaly on a USAir Metrojet 737, and years of un-explained 737 rudder problems, we believe this major report should be public record as soon as possible. It is time for everyone to have equal access to all of the information.

Brief History of United 585

UA585 had no Public Hearing and there are so many questions about the "investigation." Safety Board policy is for a go team to be dispatched to the accident site within 2-3 hours. The accident was at 9:43 AM, but the "team" left Washington DC later that day and the first meeting did not happen until 10 PM Sunday night. From Day 1 actions reflected a lack of concern about UA585. The UA585 "full go-team" did not seem to be a coherent force. John Lauber, NTSB Board Member did not stay on site, and in less than 24 hours nothing was shared with the media. Al Dickinson was Investigator-in-Charge (ICC), but we do not know if he was on the go-team flight, or how long he stayed on site. Whenever I called Al Dickinson about a report on UA585 he was always working on something else.

Joel Ryan was the original specialist for systems, but he was eventually removed from the UA585 investigation. Greg Phillips presented the systems report, but had not chaired that committee for the first year of the investigation. The specialists for power plants and other groups gave no reports at the meeting December 1992. Others who read prepared speeches had not been on site and seemed to have little or no involvement with the investigation.

I have assembled a list of the UA585 meetings that were reported. There were 90 investigators and only 18 were from the NTSB. Meetings were primarily held at and supervised by United, Parker Hannifin, and Boeing facilities. They even had meetings at Parker Hannifin before PH was party to the investigation! I believe that when the NTSB gave the UA585 power control unit (PCU) to the industry, the NTSB also gave away the investigation of UA585. The Safety Board needs to be given the resources to have more control of these investigations so that evidence of product defect is not given to the aviation industry-rather the Safety Board should be in control of vital evidence collected in a federal investigation.

For UA585 the first group-planning meeting was March 25, 1991, three weeks after the crash. During the April 25, 1991, progress meeting they said they had, "a lack of understanding of the accident." The second full team meeting did not occur until February 1992, eleven months after the crash. The wreckage was not examined until 13 months after the crash. A computer was brought in

to chase wind theories. It produced 12-18 months of additional delays because of "interfacing" problems.

In December 1992, Greg Phillips announced that Boeing had completed the design phase of the 737 retrofit. However, no leadership moved forward on the retrofits that could have prevented the Pittsburgh crash.

The first Final Report of UA585 (released December 1992) reflects a search for "wind theories" rather than the probable cause of a rudder design defect. After USAir 427, the Pittsburgh 737-300 crash September 8, 1994, the NTSB began looking at rudder anomalies unique to 737's. Perhaps the most important scientific investigation of UA585 has been done in recent years; and after 8 long years we want the information released.

Carl Vogt Letter of November 10, 1992

In 1998 a letter from November 1992 was finally released as a result of Freedom of Information requests, that clearly states, *"Analysis by Boeing and Parker Hannifin shows the potential for rudder reversal could exist in all 737 main rudder PCU's."* The letter also documents five other known incidents of 737 rudder anomalies, one as early as July 24, 1974. The letter reads like a Memo of Understanding that Boeing and Parker Hannifin were working to correct the design flaw to eliminate the potential for reversal, which killed 25 people in Colorado Springs in 1991. Unfortunately, the work was done far too slowly, and could have prevented the Pittsburgh crash. Eight years after UA585 the possibility of a 737 rudder reversal still exists.

Gail Dunham