

United Flight 585 - August 4, 1992 Letter of Reprimand to UAL

Editorial Note: The letter of August 4, 1992, was a Letter of Reprimand issued to United Airlines regarding the "Mack Moore" incident. United conducted private tests for almost three weeks on an errant 737 discovered by pilot Mack Moore in Chicago. United withheld this information from the NTSB while a party to the fatal air crash investigation of United flight 585. The letter speaks for itself. The off-site United investigation became most important toward disclosing the probable cause of UA585 and led to the Boeing October 8, 1992 : "We Have a Problem" meeting.

The letters of August 4, 1992, and November 10, 1992, were finally released in 1998 in response to Freedom of Information requests that were pursued for years.

National Transportation Safety Board Memorandum

August 4, 1992

TO: Mr. Dennis Lessard, UAL Coordinator, UA585 COS Accident
Senior Flight Safety Investigator, United Airlines'

FROM: Ronald L. Schleede, Chief, Major Investigations, NTSB

SUBJECT: Rudder Actuator Problem on a B-737-300 (#1394)

Last Wednesday, July 29, 1992, I received a telephone call from a person relating the circumstances of an on going "investigation" being conducted by United Airlines (UAL) personnel in connection with a problem with a rudder actuator from a Boeing 737-300, UAL ship no. 1394. He related some information that suggested that UAL had "duplicated a hard-over condition" on the bench at San Francisco that had been verified at the Parker Customer Support Facility in Irvine, CA. He stated that the actuator was "identical" in design to the rudder actuator from UA585 that had crashed at Colorado Springs. He also mentioned that UAL had prepared an engineering report (by Vaughn Hopkins) that contained the substance of the investigation findings and that Boeing was working on the case with UAL.

Needless to say, I was deeply concerned that we had not been informed of this case by UAL, especially after learning more about the circumstances of the case. When I attempted to learn more information, on July 30, 1992, I spoke to Mr. Jeff Plantz at UAL because I could not reach any of the other safety department staff. He advised me that he was aware of the case but would assist me in gaining information. I requested that he have the UAL engineering report FAXed to me immediately. I did not receive the FAX until Friday, after speaking to Mr. Ed Soliday.

Mr. Soliday advised me that UAL had not mentioned this case to the Safety Board, in general, because UAL had decided to evaluate it before someone "over-reacted". He said that there have been many UAL pilots and mechanics that had reported "solving flight 585" and he was frustrated by these actions. He said that UAL had decided to determine whether the incident involving ship no. 1394 was related to UA585 before reporting it to the Safety Board. He implied that UAL had already concluded that the event was not related to UA585. In other words, UAL decided to gather the facts and analyze them before notifying the Safety Board. I don't approve of this method of "cooperation" during an open and unsolved investigation that could be remotely connected to such an incident. I also learned from Mr. Soliday that captain D.B. Robinson (ALPA coordinator for UA585 investigation) was aware of the case.

As you know, we have not determined a viable scenario for the accident involving UA585 and consequently, consider the investigation open and active. Moreover, one of the results of flight simulation by the team investigating UA585 was that a hard-over rudder input was not controllable by the pilot and, under certain circumstances, was sufficient to "cause the crash". We have spent considerable effort as a team examining the various flight control components from UA585, including the rudder power components to determine whether the evidence available suggests that a hard-over or other abnormal condition may have occurred. In my opinion, for UAL to unilaterally decide that the information related to the case involving ship no. 1394 is irrelevant to UA585, without notifying the Safety Board is not in compliance with the "team concept" for a major investigation.

I might add that the Safety Board is presently working on another Boeing 737 accident (COPA) that occurred in Panama. In that case, the airplane suddenly diverted from controlled flight and was lost in a steep descent. We have not yet solved the COPA case that has possible similarities to the UA585 accident. Our staff has briefed your office on the facts known in the COPA accident and have expressed concerns about two "unsolved" Boeing 737 accidents. This further suggests that any anomalies connected with Boeing 737 rudder actuators should be pursued "in the open", using all available expertise from all parties to the UA585 investigation.

Our staff has several topics to discuss related to this case. For example, you advised me that Captain Mack Moore was the pilot that identified the initial anomaly related to ship no. 1394, and that he had detected a problem with the rudder petals during the taxi rudder check. Captain Moore is the representative of the Airline Pilots Association (ALPA) on the cockpit voice recorder group for the UA585 investigation. You also advised that captain Moore had devised a "personal" check of the rudder system in which he rapidly input rudder petal movement and reversed the action immediately, apparently in an attempt to "beat the feedback loop within the rudder system to detect anomalies. This type of scenario was pursued during the investigation of UA585 in an attempt to evaluate the affect of the known defective standby rudder actuator bearing. I spoke to captain Mack Moore today and he refutes that scenario. He stated that he encountered a possible increased force when pushing the right rudder petal to the floor and, when he pushed left rudder, it "struck" momentarily at about 25% input. Only during return to the gate did he attempt rapid movements in excess of the routine check. He said he encountered no further restrictions. He apparently has provided UAL a full statement.

Based on our 1400 telecon on August 3, 1992, that included UAL, FAA, NTSB, and Boeing personnel (we made several attempts to include ALPA), it was apparent that neither UAL or Boeing could answer several important and relevant questions about the events surrounding the rudder actuator from ship no. 1394. We realize that the investigation is incomplete; however, it seems that we should include as much expertise as possible to resolve this matter.

Because of this situation please consider this memorandum to be an official request for UAL to be more candid and open about any potential airworthiness issues that may help us understand the reason(s) for the crash of UA585. Furthermore, unless I can be convinced otherwise, consider the events related to the case of shop no. 1394 part of the investigation of UA585. Any reports, statements, etc. that have been generated should be made available to the Safety Board specialists leading the various investigative groups, so the other experts can make a collective determination of relevance of the data. A separate list of items requested during our telecon of August 3, 1992, is attached. If there are any items that we overlooked or that you believe should be made available, please forward them to us.

If you or your staff have any questions regarding this matter, feel free to contact Mr. Al Dickinson, the IIC, or me directly. The other staff associated with the investigation are also available.

Ron Schleede

cc: FAA
ALPA
Boeing
IAM
Al Dickinson