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National Transportation Safety Board

Washington, D. C. 20594

Safety Recommendation

Date: June 28, 1988

In reply refer to: A-88-72

Honorable T. Allan McArtor
Administrator
Federal Aviation Administration
Washington, D.C. 20591

On May 26, 1987, at 4:45 p.m., Air New Orleans, doing business as Continental Express flight 962, departed runway 19 at New Orleans International Airport on a scheduled commuter flight to Eglin Air Force Base, Florida. There were two pilots and nine passengers onboard at the time. As the airplane reached an altitude of 150 to 200 feet above ground level, the crew felt a severe yawing motion and observed the engine torque fluctuate erratically. The captain proceeded to make an emergency landing in the departure overrun of runway 19. Following one bounce and final touchdown, maximum braking and full reverse thrust were applied. The airplane then rolled off the overrun, across an airport access road, through an airport security fence, through a concrete highway barrier, and across a highway. The airplane struck several vehicles on the roadway during the accident sequence. The main wreckage came to rest in a parking lot on the other side of the highway. The crew and passengers evacuated safely and there was no fire. Two passengers aboard the airplane suffered serious injuries. In addition, both pilots, seven passengers, and two occupants of ground vehicles received minor injuries. The airplane was destroyed. 1/

The National Transportation Safety Board is concerned by the design of the company normal procedures checklist used by the flightcrew on the day of the accident. The checklist, an amalgam of manufacturer's and operator's items that addresses the needs of the company, was in its seventh revision at the time of the accident. Earlier versions were not available to the Safety Board. Frequent revisions of checklists for newly acquired aircraft are understandable, but the fact that this one had been changed seven times between January and May 1987 suggests to the Safety Board that its original design and approval may have been inadequate and may have caused confusion among flightcrews.

1/ For more detailed information, read Aircraft Accident Report--"Air New Orleans, DBA Continental Express Flight 962, British Aerospace 3101 (Jetstream 31), N331CY, New Orleans International Airport, Kenner, Louisiana, May 26, 1987" (NTSB/AAR-88/06).

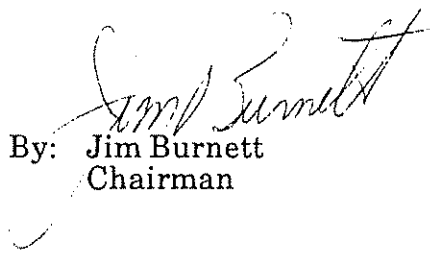
2/ *Human Engineering Guide to Equipment Design*, (Revised Edition), Edited by Harold Van Cott and Robert Kinkade, American Institutes for Research, Washington, D.C., 1972.

The checklist retrieved from the airplane was typewritten and laminated in glossy clear plastic. According to the *Human Engineering Guide to Equipment Design*, ^{2/} the typeface on the Air New Orleans checklist is 57 percent smaller than that recommended by human engineering criteria. This smaller typeface reduces the legibility of the print even under optimum conditions. Although there was no evidence that checklist legibility was a factor in this accident, the Safety Board believes that under other operational circumstances, this deficiency could compromise the intended purpose of this device. Therefore, the Safety Board believes that the Federal Aviation Administration should take action to verify that aircraft checklists are designed to comply with accepted human engineering criteria.

Therefore, the National Transportation Safety Board recommends that the Federal Aviation Administration:

Issue an Advisory Circular to commercial operators recommending the use of a procedural checklist that incorporates human engineering design criteria for size and style of print. (Class II, Priority Action)
(A-88-72)

BURNETT, Chairman, KOLSTAD, Vice Chairman, and LAUBER and NALL, Members, concurred in this recommendation.


By: Jim Burnett
Chairman