



National Transportation Safety Board

Washington, D.C. 20594
Safety Recommendation

Date: June 25, 1993

In reply refer to A-93-70
through -72

Mr. Joseph M. Del Balzo
Acting Administrator
Federal Aviation Administration
Washington, D. C. 20591

On December 28, 1991, about 2147 eastern standard time, a Beech 1900C, N811BE, operated by Business Express, Inc., crashed in the Atlantic Ocean, about 10 miles east northeast of Block Island, Rhode Island, while on a training flight.¹ Business Express is certificated under 14 Code of Federal Regulations (CFR) Part 135, but the accident flight was operated under 14 CFR Part 91. The airplane was destroyed, and the three crewmembers are presumed to have been fatally injured. An attempt to recover the wreckage from the Atlantic Ocean has been only partially successful. Much of the airplane could not be located, and the bodies of the crewmembers were not found.

The National Transportation Safety Board determined that the probable causes of the BEX accident were the instructor pilot's loss of altitude awareness and possible spatial disorientation, which resulted in the loss of control of the airplane at an altitude too low for recovery; and company management's lack of involvement in and oversight of its Beechcraft 1900 flight training program. Contributing to the accident was the instructor pilot's exercise of poor judgment in establishing a flight situation and airplane configuration conducive to spatial disorientation that afforded the pilots little or no margin for error.

The Safety Board's investigation of the BEX accident disclosed that the IP was providing instruction and training in potential flight check maneuvers to two company first officers who were under consideration for advancement to captain. The training was conducted at night using the navigational and other facilities at the Block Island Airport.

¹ For more detailed information, read Aviation Accident Report--"Loss of Control, Business Express, Inc., Beechcraft 1900C, N811BE-28, near Block Island, Rhode Island, December 28, 1991." (NTSB/AAR-9301/SUM)

Part of the training included the captain-trainee flying with reference to only "partial panel" instruments after the IP had disabled the captain-trainee's attitude indicator. The accident occurred while the captain-trainee was flying practice instrument approaches to the Block Island Airport and was attempting to fly the airplane with a disabled attitude indicator and a simulated failure of the right engine on the VOR approach to runway 28. The trainee lost control of the airplane near 1,700 feet mean sea level and asked the IP to assume control. The IP declined and continued to coach the trainee on recovery procedures for an airplane nose-low and banked attitude. The airplane struck the water at a relatively high speed before it could recover from the unusual attitude.

The investigation also disclosed that company management personnel did not adequately supervise their BE 1900 flight training program to ensure that training objectives were met without exposing their pilots to conditions potentially hazardous to flight safety. Also, the Federal Aviation Administration (FAA) operations inspectors failed to adequately monitor BEX's flight training program and failed to recognize that management oversight of and involvement in the BE 1900 training program was minimal. Consequently, the Safety Board believes that corrective action is needed with respect to commuter airlines to verify that appropriate and qualified levels of airline management are actively involved in the airlines' flight training programs.

The Safety Board recognizes that significant progress has been made in recent years in providing better flight training simulators and devices for use by the commuter airline industry and in providing the authority to conduct much of its testing, training, and checking required by 14 CFR Part 135 in approved flight simulators. However, this accident and other recent commuter airline training accidents indicate that a need for increased emphasis on the use of flight simulators may continue to exist and that airline management should be again encouraged to use flight simulators to the maximum extent feasible for training.

The Safety Board also notes that with the significant improvements made in flight simulators in the last decade, and with the increased size, complexity, and performance of typical commuter air carrier airplanes, it may be time to consider the confinement of certain hazardous training maneuvers to flight simulators for Part 135 commuter operators. In 1972, the Safety Board made safety recommendations to the FAA to this effect for Part 121 operators, and currently, virtually all training, testing, and checking for pilots of Part 121 operators are conducted in flight simulators. Therefore, the Safety Board believes that the FAA should consider appropriate amendments to 14 CFR Part 135 to require that training, testing, and checking in the performance of certain hazardous flight maneuvers, such as engine-out operations and recovery from unusual attitude maneuvers, be conducted to the maximum extent

feasible in approved flight simulators for Part 135 commuter operators.

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

Require principal operations inspectors of commuter airlines to verify that appropriate and qualified levels of airline management are actively involved in the airline's flight training programs. (Class II, Priority Action) (A-93-70)

Encourage commuter airlines managers to use approved flight simulators for pilot training, qualification, and competency and instrument check purposes to the maximum extent feasible. (Class II, Priority Action) (A-93-71)

Consider an amendment to 14 CFR Part 135 to require that commuter air carriers perform certain hazardous training, testing, and checking maneuvers, such as engine-out operations, and recovery from unusual flight attitudes, in approved flight simulators to the maximum extent feasible. (Class III, Longer Term Action) (A-93-72)

Also, the Safety Board issued Safety Recommendation A-93-73 to the Regional Airline Association.

Chairman VOGT, Vice Chairman COUGHLIN, and Members LAUBER, HAMMERSCHMIDT, AND HART concurred in these recommendations.


By: Carl W. Vogt
Chairman