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## NATIONAL TRANSPORTATION SAFETY BOARD WASHINGTON, D.C.

ISSUED: September 13, 1977

Forwarded to:

Honorable Langhorne M. Bond Administrator Federal Aviation Administration Washington, D. C. 20591

SAFETY RECOMMENDATION(S)

A-77-59 and 60

On November 12, 1976, a Dassault Falcon Fan Jet, operated by the R. J. Reynolds Tobacco Company, crashed at Naples, Florida. The National Transportation Safety Board's investigation revealed that the nine passengers encountered severe difficulties in evacuating the aircraft because the passengers lacked knowledge of emergency procedures; they were not briefed before departure; and there were no placarded instructions for opening the main cabin door or the two overwing exits.

Specifically, although a passenger briefing is required by 14 CFR 91.199, the pilots did not brief the passengers before takeoff regarding the location and operation of the main door and the overwing exits. Some of the passengers rarely flew on company aircraft and one passenger had never flown on a company aircraft until the day of the accident. None of these passengers could recall having been briefed by a pilot. Although several passenger briefing cards were available in the cabin, the passengers were not directed to refer to them before takeoff.

In addition, the passenger who occupied the jumpseat did not know that a shoulder harness was available for his use even though he had occupied the jumpseat on several occasions. Although this upper torso restraint was only a single diagonal strap, the Safety Board believes that his chest injuries would have been averted had he worn the restraint.

The Safety Board also found that, while a placard was attached to the main entry door containing instructions for closing this door, there were no instructions for opening the main entry door. The passenger in the jumpseat tried to open the door after the accident, but he was not able to do so because he did not know that the three door controls had to be actuated in sequence and that the door had to be pushed outward while simultaneously actuating one of the controls. The illustration and accompanying written instructions on the passenger briefing cards did not communicate clearly the location, identification, and proper

sequencing of the door controls. The card also failed to communicate that the door would not open unless the proper sequence was followed.

Requirements for placarding doors are contained in 14 CFR 25.783 (b). However, according to the company that installed the interior in the aircraft, the aircraft contained no placards for opening the door when the aircraft was delivered to them. The FAA General Aviation District Office that inspected the aircraft after the interior furnishings were installed did not request that a placard be installed.

The timely evacuation also was affected by the lack of instructions for opening the two overwing exits. Requirements for emergency exit operation placards are contained in 14 CFR 25.811. The passengers correctly actuated the handles which unlocked the two emergency exits, but they did not realize that they also had to grasp the hatches and pull them inside the cabin. Neither emergency hatch contained placarded instructions to direct the passengers to pull the hatch away from the fuselage opening. As a result, the two overwing exits were not opened. Our investigation disclosed that the passenger safety card incorrectly illustrated the overwing exit hatch configuration installed in that aircraft.

Finally, a small carpet on the floor at the main entrance area became wedged underneath the door which separates the passenger cabin from the main entrance area. As a result, the door jammed closed. Placards on this intra-cabin door warned that the door was to remain open during takeoff and landing, but the jumpseat passenger had closed the door before takeoff. The passengers in the cabin were unable to open the door; thus, access to the main entry door was blocked until the carpet was removed.

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

Issue an Operations Bulletin to alert FAA inspectors of the need to bring to the attention of Part 91 corporate aircraft operators the need for:

- (a) Briefing of passengers before takeoff on emergency procedures.
- (b) Compliance with placarded instructions on doors which are required to be open during takeoff and landing.
- (c) Stowing of all loose items in the aircraft before takeoff and landing.

(d) Periodically reviewing the adequacy of passenger briefing cards. (Class II -Priority Followup) (A-77-59)

Issue a Maintenance Bulletin to request FAA inspectors to review the proper installation and adequacy of placarded instructions for opening all exits on large corporate aircraft. (Class II - Priority Followup) (A-77-60)

TODD, Chairman, BAILEY, Vice Chairman, McADAMS and HOGUE, Members concurred in the above recommendations. HALEY, Member, did not participate.

Kay Bailey
By: Kay Bailey

Acting Chairman