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Log 1715

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

ISSUED: November 19, 1985

Forwarded to:

Honorable Donald D. Engen Administrator Federal Aviation Administration Washington, D.C. 20591

SAFETY RECOMMENDATION(S)

A-85-117

On April 4, 1984, an Aerospatiale Twinstar helicopter with a pilot and three passengers aboard collided with a structure on a helicopter pad during takeoff from a large unmanned oil rig in the Gulf of Mexico. The pilot lost control, and the helicopter struck the water in a steep left bank at a moderate rate of descent. The pilot's seat was not equipped with a shoulder harness. The pilot initially sustained nonfatal but incapacitating injuries as he was thrown forward and to the left against the instrument panel and center console. As a result, the pilot was not able to deploy the liferaft or assist his passengers. All of the persons onboard drowned.

Had the pilot's seat been equipped with a shoulder harness, and had it been worn, it is probable that the pilot would have been capable of deploying the emergency equipment that was onboard the helicopter. The Safety Board's investigation of this accident indicated that at least one, and possibly two, of the three passenger fatalities might have been prevented by the deployment of emergency equipment and the pilot's assistance for its proper use.

The Safety Board recognizes that the Federal Aviation Administration (FAA) has undertaken several very worthwhile efforts in recent years aimed at improving the crashworthiness of general aviation helicopters. Especially noteworthy is the recent amendment to 14 CFR Part 27 to require the installation of shoulder harnesses in the front seats of newly certificated helicopters. However, current operating rules do not require helicopter flight crewmembers to use shoulder harnesses during takeoff and landing. Flight crewmembers in airplanes are required by 14 CFR 91.7 to use shoulder harnesses during takeoff and landing. The mandatory use of shoulder harnesses by helicopter

flightcrews, where installed, would not involve any cost to operators and would provide a level of safety in helicopters comparable to that of airplanes. This improvement could be accomplished by extending the current requirement to wear installed shoulder harnesses when flying in "airplanes" to all "aircraft," which would include helicopters. Ideally, of course, the requirement should extend to all occupants of small general aviation aircraft.

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

Amend 14 CFR 91.7(b) to require that during takeoff and landing each required flight crewmember of a U.S.-registered civil aircraft keep the shoulder harness fastened while at his station. (Class II, Priority Action) (A-85-117)

BURNETT, Chairman, GOLDMAN, Vice Chairman, and BURSLEY, Member, concurred in this recommendation.

By: Jim Burnett

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