



**U.S. Department
of Transportation
Federal Aviation
Administration**

SAFO

Safety Alert for Operators

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Flight Standards Service
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http://www.faa.gov/other_visit/aviation_industry/airline_operators/airline_safety/safo

A SAFO contains important safety information and may include recommended action. SAFO content should be especially valuable to air carriers in meeting their statutory duty to provide service with the highest possible degree of safety in the public interest. Besides the specific action recommended in a SAFO, an alternative action may be as effective in addressing the safety issue named in the SAFO.

Subject: Loss of air data sensors on the Boeing 717 in heavy rain or icing

Purpose: This SAFO alerts operators of the B-717 of a potential hazard in heavy rain or icing, and recommends mitigation measures, including those contained in Boeing Service Bulletin 717-30A0003.

Background: An operator of a Model 717 reported that during climb-out in heavy rain and icing conditions, the airplane experienced loss of, or unreliable airspeed indications consistent with a loss of, air data sensor heating. The possibility exists for loss of, or unreliable airspeed indication, for all three airspeed displays (Captain, First Officer, and ISIS) during icing conditions.

Discussion: The Boeing Company has issued two Interim Operating Procedures (IOP) (1-27 and 2-56), which are applicable to all operators of Model 717 airplanes to instruct flightcrews to cycle the AIR DATA HEAT switch on the forward-overhead panel to confirm that the air data sensor heaters are operating when airspeed is lost, suspect, or erratic.

Recommended Action: Directors of safety, directors of operations, chief pilots, training managers, and flight crewmembers of passenger-carrying Boeing Model 717 should be aware of the potential hazard and recommended mitigations described in this SAFO. In addition to the instructions in the Boeing IOP, the FAA encourages all operators to verify that their "cockpit preparation" checklist identifies an instruction to, prior to engine start, actuate the AIR DATA HEAT switch on the Ice Protection Panel, paying particular attention to the ON position by depressing the switch to ensure that the "OFF" annunciator, visible through the switch cap, has extinguished. Additionally, operators are encouraged to actuate the AIR DATA HEAT switch to the "OFF" position in reference to their "parking procedures" checklist by depressing the switch, then observe that the "AIR DATA HEAT OFF" message appears on the EAD and that the "OFF" legend is discernible when night "DIM" position is selected or in normal daylight operations, dependent upon ambient light considerations. This procedure is intended to ensure integrity and visibility of the legend lamps, and confirm that air data sensor heating functions are operational before departure and inhibited after parking.

In addition to recognizing the IOPs, operators are encouraged to incorporate the Boeing Service Bulletin 717-30A0003, titled "ICE AND RAIN PROTECTION – Air Data Sensor Heating – Change First Officer's Pitot Heat System Wiring. Incorporation of this service bulletin will mitigate potential AIR DATA HEAT switch and circuitry malfunctions that would prevent availability of air data sensor heating of the captain's, first officer's, and auxiliary pitots.