

Boeing 747 Series Aeroplanes

AD/B747/122

**Ice and Rain Protection - Pitot Static
and Temperature Probe Icing**

**11/93
DM**

Applicability: All model 747-400 series airplanes.

Requirement: Action in accordance with Boeing Alert Service Bulletin 747-30A2069 dated 15 July 1993.

Note: FAA AD 93-14-21 Amendment 39-8646 refers.

Compliance: Prior to 1 December 1993.

Background: Operators have reported cases of aircraft entering the ground operating mode whilst still flying, due to depressurisation of the number four hydraulic system.

The Federal Aviation Administration (FAA) has determined that when there is a loss of pressure in hydraulic system number four, the wing gear trucks may relax sufficiently to exceed the tilted position indication, when this occurs on the sensing systems for both the left and right wing gear trucks, the aircraft will enter the "ground mode". Additionally, if hydraulic system number one is depressurised and the body gear trucks relax sufficiently, the aircraft will enter the "ground mode" when the gear is extended for landing. FAA analysis indicates that various electrical and avionics systems, including the pitot and total air temperature heat systems, will be affected by this type of failure.

Compliance with this Directive will reduce the effect on aircraft systems by ensuring that full pitot and total air temperature heat in the event of an aircraft entering "ground mode" of operation.

A Flight Manual Amendment is required and will be issued under Approval Number A/QF747-4/27.