

AlliedSignal (Garrett/AiResearch) Turbine Engines - TPE 331 Series

AD/TPE 331/52

PT2 Sensor Icing

11/97

Applicability: TPE331-3, -5, -6, -10, -11, -12 series engines not incorporating a Pt2 sensor modified in accordance with AlliedSignal Service Bulletins (SB) TPE331-73-0235 or TPE331-73-0236 as applicable by engine model.

Requirement: 1. All applicable aircraft:

To prevent the loss of control of engine power when operating in icing conditions, modify the Pt2 sensor in accordance with the requirements of AlliedSignal SB TPE331-73-0235 or TPE331-73-0236 as applicable by engine model number.

2. Aircraft equipped with engine inlet ice protection:

To address the possible loss of control of engine power when operating in icing conditions; pending the issue of an amendment to the Approved Flight Manual, a copy of this directive shall be placed in the Approved Flight Manual as the first page of the emergency or abnormal procedures section to reflect:

“NON RESPONSIVE POWER LEVER:

If a lack of response to power lever is observed, turn on the ignition and anti-ice for both engines. After the condition has cleared and normal operations are observed, which occurs in approximately three minutes, anti-ice and ignition can be turned off.”

Note 1: Compliance with the requirements of SB TPE331-73-0235 or TPE331-73-0236 constitutes a terminating action for the requirements of this directive.

Note 2: FAA Airworthiness Directive 97-15-10 refers.

Compliance: 1. As detailed in the requirement documents.

2. Within 30 days from the effective date of this directive.

This airworthiness directive becomes effective on 9 October 1997.

Background: This directive has been issued to address reports of ice blockage of the Pt2 probe. Icing of the Pt2 probe can result in erroneous signals to the fuel control unit causing little or no response to power lever movement. This directive requires the modification of the Pt2 sensor to provide Pt2 sensing in the event of the probe icing and to increase anti-ice flow to the Pt2 sensor to optimise the de-icing time.