AIRWORTHINESS DIRECTIVE

On the effective date specified below, and for the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive (AD) AD/TAY/12 Amdt 4 and issues the following AD under subregulation 39.001(1) of CASR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

Rolls Royce Turbine Engines - Tay Series

AD/TAY/12 Low Pressure Compressor Ice Impact Panels 1/2006

Amdt 5

Applicability: Rolls Royce Tay 611-8, Tay 620-15/20, Tay 620-15, Tay 650-15, Tay 650-15/10 and Tay 651-54 engines that have at least one Low Pressure (LP) compressor case ice impact panel of Service Bulletin (SB) TAY-72-1326 standard installed.

All TAY 611-8C turbine engines prior to Engine Serial Number 85078.

Note 1: LP compressor case ice impact panel of SB TAY-72-1326 standard may have been introduced at new production or by SB TAY-72-1326 or by Repair Schemes HRS3491, HRS3615 (Technical Variance TV5451R), HRS3648 or HRS3649.

Requirement:

For Tay 611-8, Tay 620-15, Tay 620-15/20, Tay 650-15, Tay 650-15/10 and Tay 651-54 turbine engines:

1. Carry out an initial and repetitive examination of the bonding of the low-pressure compressor ice impact panels in accordance with Rolls Royce SB TAY-72-1638R3 or TAY-72-1639R2 as applicable.

2. Repair or replace all low pressure compressor ice impact panels if any visible movement, rocking motion or reappearing moisture on the LP compressor case ice impact panel have been detected during the examination per Requirement 1.

3. Replace all affected low-pressure compressor case ice impact panels in accordance with Rolls Royce SB TAY-72-1638R3 or TAY-72-1639R2 as applicable.

4. Introduce new ice impact panels with additional retention features and a new layer structure in accordance with the accomplishment instructions of Rolls Royce SB TAY-72-A1643R1 or TAY-72-A1650 initial issue.

For Tay 611-8C engines:

5. Introduce new LP compressor case ice impact panels with additional retention features in accordance with the accomplishment instructions of Rolls-Royce Service Bulletin TAY-72-A1650 initial Issue.

Rolls Royce Turbine Engines - Tay Series

AD/TAY/12 Amdt 5 (continued)

Compliance: 1 and 2: As detailed in the referenced service bulletins.

3. For TAY611-8, TAY620-15/20 and TAY620-15 engines remains unchanged as:
before 1 March 2005.

   For TAY650-15, TAY650-15/10 and TAY651-54 engines remains unchanged as:
before 1 September 2005.

4. As detailed in Rolls Royce SB TAY-72-A1643R1 or TAY-72-A1650.

5. As detailed in Rolls Royce SB TAY-72-A1650.

This Amendment becomes effective on 19 January 2006.

Background: An event has occurred on a Tay 620-15/20 powered aircraft where all the Low
Pressure (LP) compressor case ice impact panels of Rolls-Royce Service Bulletin
TAY-72-1326 standard on both engines were released in flight. The released LP
compressor case impact panels were caught in front of the fan outlet guide vanes,
resulting in bypass duct blockage and significant thrust loss. The actions specified by
this Airworthiness Directive are intended to make sure that the bonding of these LP
compressor ice impact panels complies with the design intent.

Amendment 5 includes the TAY 611-8C engine.

Amendment 4 included a new replacement panel which has a new retention system
and layer structure which is designed to prevent failure of the panel.

Amendment 3 updated the reference document to the last revision and changed the
compliance period for some models of engine for replacement of the ice impact
panels.

Amendment 2 updated the reference documents to reflect the latest revision.

The requirements detailed in amendment 1 of this Directive superseded those
requirements detailed in AD/TAY/10 Amdt 1 and AD/TAY/11.

Amendment 4 of this Directive became effective on 27 October 2005.

Amendment 3 of this Directive became effective on 12 May 2005.

Amendment 2 of this Directive became effective on 23 December 2004.

Amendment 1 of this Directive became effective on 28 October 2004.
The original issue of this Directive became effective on 2 September 2004.

James Coyne
Delegate of the Civil Aviation Safety Authority

30 November 2005