

Radio Communication and Navigation Equipment

**AIRWORTHINESS DIRECTIVE**

For the reasons set out in the background section, the CASA delegate whose signature appears below issues the following Airworthiness Directive (AD) under subregulation 39.1 (1) of CAR 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.

**AD/RAD/73**

**Rockwell Collins CTL-92  
Transponder Control Panel**

**10/2001  
DM**

**Applicability:** Rockwell Collins CTL-92 Transponder Control Panel Part Numbers 622-6523-204, 622-6523-205, 622-6523-206, 622-6523-207, and 622-6523-208 (serial numbers as specified in Rockwell Collins Service Bulletin [SB] 33 [CTL-92-34-33], dated 5 April 2001).

*Note 1: These CTL-92 transponder control panels are known to be installed in, but not limited to, the following aircraft:*

*Aerospatiale ATR42 and ATR72 series aeroplanes  
Saab Aircraft Models 340B and SF340A aeroplanes  
Embraer EMB-120 series aeroplanes  
de Havilland DHC-8 series aeroplanes  
Raytheon Models C90A, B200, 350, and 1900D aeroplanes.*

**Requirement:**

1. Modify the altitude encoder inputs of the CTL-92 transponder control panels in accordance with the Accomplishment Instructions section of Rockwell Collins SB 33 (CTL-92-34-33).
2. CTL-92 Transponder Control Panel, with the part number serial number combination listed in SB 33 (CTL-92-34-33), may not be installed on any aeroplane unless it has been modified in accordance with Requirement 1.

*Note 2: FAA AD 2001-15-17 Amdt 39-12352 refers.*

**Compliance:** For Requirement 1 - Within the next 10 hours time-in-service from the effective date of this Directive.

For Requirement 2 - As of the effective date of this Directive.

This Airworthiness Directive becomes effective on 20 August 2001.

**Background:** The United States Federal Aviation Administration has received reports of erroneous Mode C and Mode S random transponder transmissions from aircraft equipped with Gillham encoded altitude sources and certain Rockwell Collins CTL-92 Transponder Control Panels. Rockwell Collins introduced new A6 circuit cards for these transponder control panels in September 2000.

These circuit cards exhibit reduced ground integrity in the area of the Gillham input processing. This results in noise generation within the CTL-92 control panels that the transponder can interpret and transmit as a random altitude. Air traffic control and traffic alert and collision avoidance system (TCAS)-equipped aircraft can interpret these erroneous random altitudes as valid altitudes.

This Directive requires modification of the altitude encoder inputs of the CTL-92. This action is intended to prevent erroneous altitude interpretations, which could result in reduced vertical separation or unsafe TCAS resolution advisories.



Eugene Paul Holzapfel  
Delegate of the Civil Aviation Safety Authority

6 August 2001