

Radio Communication and Navigation Equipment

AD/RAD/43 **ATC Transponder Systems with Active Mode C** **5/96**
Amdt 5

Applicability: Air Traffic Control (ATC) transponder systems, having an active automatic altitude reporting facility (Mode C).

Requirement: 1. Ensure that the altimeter, which is used for primary control of aircraft altitude and which will be used for the Mode C data correspondence check, is calibrated in accordance with the requirements of United States Federal Aviation Regulations Part 43, Appendix E, Paragraph (b).

 2. Perform an integrated system test in accordance with the requirements contained in United States Federal Aviation Regulations Part 43, Appendix E, Paragraph (c). Code 2100 should be used when carrying out transponder tests.

Compliance: For Requirements 1 and 2:

 (a) At intervals not exceeding 24 calendar months, or

 (b) At the intervals approved in accordance with a System of Maintenance for the aircraft pursuant to Civil Aviation Regulation (CAR) 42M.

For Requirement 2:

For aircraft that utilise a separate direct reading altimeter for the primary control of aircraft altitude and have a separate blind encoder, air data computer or equivalent reporting directly to ATC via the aircraft transponder, checks are to be made on each occasion of:

- (a) any change of or modification to system component/s, and/or
- (b) any change or modification to system interwiring.

Note 1. Correct operation needs to be confirmed after any maintenance on a system/component that has the potential to cause a difference in reported altitudes.

Note 2. Aircraft that utilise a single altitude data source do not require a check after component change or maintenance unless there have been interwiring changes or system modifications.

Note 3. For aircraft fitted with redundant single altitude data sources, cross checking between remote displays, each displaying altitude data from a different source, is sufficient to confirm absence or presence of correspondence error.

This amendment is effective from 25 April 1996.

SCHEDULE OF AIRWORTHINESS DIRECTIVES

Background: Amendment 2 clarified the Compliance requirement and brings it directly into line with the requirements of the United States Federal Aviation Administration. Amendment 3 was issued to clarify the Compliance. Amendment 4 was issued to correct the reference to CARs and to advise the correct code to be used when testing ATC transponder systems. Amendment 5 is issued to clarify the intent of Requirement 2.