

PŘÍKAZ K ZACHOVÁNÍ LETOVÉ ZPŮSOBILOSTI

CAA-AD-T-089/1999

Datum vydání: 02. září 1999

LETADLOVÉ ZAŘÍZENÍ - ATC ODPOVÍDAČ MÓD S s TCAS II - KONTROLA

Týká se: všech letadel se zabudovaným ATC odpovídačem mód S s TCAS II.

Datum účinnosti: ihned po obdržení

Provést v termínech: Jak je popsáno v CAA Emergency AD 001-08-99.

Postup provedení prací: Dle CAA Emergency AD 001-08-99.

Poznámky: Provedení tohoto PZZ musí být zapsáno do letadlové knihy. Případné dotazy týkající se tohoto PZZ adresujte na ÚCL technický inspektorát - Ing. Kračmer. Pokud to vyžaduje povaha tohoto PZZ musí být zapracován do příslušné části dokumentace pro obsluhu, údržbu a opravy letadla. Tento PZZ byl vypracován na základě CAA Emergency AD 001-08.

Ing. Pavel MATOUŠEK
Ředitel technického inspektorátu
Úřad pro civilní letectví

CAA EMERGENCY AIRWORTHINESS DIRECTIVE 001-08-99

AIRCRAFT EQUIPPED WITH MODE "S" TRANSPONDER SYSTEMS AND TCAS II

CHECK OF ALTITUDE ENCODED DATA AND COMPARATOR FUNCTION USED BY MODE "S"

TRANSPONDER IN TCAS EQUIPPED AIRCRAFT.

BACKGROUND

Investigations into a recent incident involving a hazardous loss of separation between two aircraft revealed faults in the Mode "S" system of one of the aircraft.

The loss of separation was caused by improper operation of the aircraft TCAS which was receiving erroneous altitude data from its Mode "S" transponder. The erroneous data was not detected due to a dormant fault in an altitude data source comparator installed, in the Mode "S" transponder, to detect such faults.

APPLICABILITY

Applicable to aircraft equipped with one or more Mode "S" transponder systems connected to a TCAS II.

COMPLIANCE

Compliance is required not later than 45 days from the effective date of this Directive which is 18 August 1999.

REQUIREMENT

Check the Mode "S" transponder systems as follows:

By inspection and reference to the build standard of the aircraft, together with the Maintenance Manual and Wiring Diagram Manual, determine the source(s) of pressure-altitude data to the Mode "S" transponder(s).

(1) For aircraft using altitude data input to the Mode "S" transponder(s) and encoded in other than Gilham format e.g. databus or synchro formats, no further action is required by this Directive.

(2) For aircraft where altitude data is encoded in Gilham format and inputs to each Mode "S" transponder are provided from dual altitude encoders, for each transponder:

(a) Confirm by inspection and reference to aircraft and equipment Maintenance Manuals and Wiring Diagram Manuals, that the transponder altitude data comparator function is enabled and using appropriate test equipment, demonstrate that the comparator detects altitude data differences between the dual encoders of more than 600 feet. If the comparator function is not enabled or is unserviceable, rectify before further flight.

and,

(b) Not later than three months from the effective date of this Directive, amend the Maintenance Schedule/Programme to provide a verification test of the functionality of the transponder altitude data comparator at periods not to exceed 24 months.

(3) For aircraft where altitude data in Gilham format is provided to each Mode "S" transponder from a single altitude source:

(a) Test the systems using appropriate test equipment at intervals not exceeding 45 days to verify that the altitude readout of the Mode "S" system is correct throughout the operating envelope of the aircraft.

(b) The need for the repetitive test specified in paragraph (3)(a) of this Directive will terminate when the aircraft is modified with either a single monitored air data sensor or dual independent altitude encoders and an altitude data comparator.

JAA Administrative & Guidance Material Section One: General, Part 3: Temporary Guidance Leaflet No. 8.

provides operators with further information.

(4) Report all findings found during testing to Mr Pat Doolan at the address below.

IT IS RECOMMENDED THAT YOU FORWARD A COPY OF THIS AIRWORTHINESS DIRECTIVE TO THE ORGANISATION THAT MAINTAINS YOUR AIRCRAFT.

Enquiries regarding this Directive should be referred to Mr Pat Doolan, Deputy Manager, Applications &

Certification Section 1E, Civil Aviation Authority, Aviation House, Gatwick Airport South, West Sussex RH6

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