



Subject: FAA NPRM regarding some TCAS units from ACSS

On Tuesday, December 28, 2010, the FAA issued Federal Register Volume 75, Number 248 Proposed Rules. Pages 81512-81514 as follows:

14 CFR Part 39 Docket No. FAA-2010-1204; Directorate Identifier 2010-NM-147-AD RIN 2120-AA64 Airworthiness Directives; Various Aviation Communication & Surveillance Systems (ACSS) Traffic Alert and Collision Avoidance System (TCAS) Units

Action: Notice of proposed rulemaking (NPRM). Excerpts from the summary information is as follows:

We propose to adopt a new airworthiness directive (AD) for various aircraft equipped with certain ACSS TCAS units. This proposed AD would require upgrading software. This proposed AD results from reports of anomalies with TCAS units during a flight test over a high density airport. The TCAS units dropped several reduced surveillance aircraft tracks because of interference limiting. We are proposing this AD to prevent TCAS units from dropping tracks, which could compromise separation of air traffic and lead to subsequent mid-air collisions.

Discussion: We have received reports of anomalies with the Aviation Communication & Surveillance Systems (ACSS) Traffic Alert and Collision Avoidance System (TCAS) units during a flight test over a high density airport. The TCAS units dropped several reduced surveillance aircraft tracks because of interference limiting. When the TCAS unit interrogated aircraft in a high density airport area, some of the targets disappeared from the cockpit display or were not recognized. One occurrence of dropped tracks occurred for 30 to 40 seconds of a 90-minute flight segment. This condition, if not corrected, could lead to possible loss of separation of air traffic and possible mid-air collision.

Relevant Service Information: We have reviewed the ACSS service information specified in the following table. The service information describes procedures for upgrading software for the ACSS TCAS to improve tracking of nearby Mode-S intruders in high density environments.

Relevant Service Information

ACSS Publication		
ATA Service Bulletin No.	No.	Date
4066010-34-6036.....	8008230-001	May 25, 2010.
7517900-34-6040.....	8008229-001	May 12, 2010.
7517900-34-6041.....	8008231-001	May 24, 2010.
7517900-34-6042.....	8008236-001	May 27, 2010.
9000000-34-6016.....	8008233-001	June 4, 2010.
9000000-34-6017.....	8008234-001	June 4, 2010.
9000000-34-6018.....	8008238-001	June 4, 2010.
9003000-34-6006.....	8008235-001	June 4, 2010.
9003500-34-6014.....	8008221-001	May 27, 2010.
9003500-34-6015.....	8008222-001	May 27, 2010.
9003500-34-6016.....	8008223-001	May 27, 2010.

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FAA's Determination and Requirements of This Proposed AD

We are proposing this AD because we evaluated all relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of these same type designs. This proposed AD would require accomplishing the actions specified in the service information described previously.

Costs of Compliance

We estimate that this proposed AD would affect 9,000 airplanes of U.S. registry. We also estimate that it would take about 2 work-hours per product to comply with this proposed AD.

Applicability

This AD applies to Aviation Communication & Surveillance Systems (ACSS) Traffic Alert and Collision Avoidance System (TCAS) units with the part numbers (P/Ns) specified in the ACSS service bulletins identified in Table 1 of this AD, as installed on, but not limited to, various transport and small airplanes, certificated in any category.

Compliance

You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Upgrade Software

Within 48 months after the effective date of this AD, upgrade software for the ACSS TCAS, in accordance with the Accomplishment Instructions of the applicable ACSS service bulletin identified in Table 1 of this AD.

Note 1: ACSS Publication Number 8008233-001, dated June 4, 2010, ATA Service Bulletin 9000000-34-6016, contains three part numbers (P/Ns 9000000-10007, -20007, and -55007) which were never produced.

For more information or discussion on this issue please contact
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