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## The Federal Register

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Proposed Rule

## Airworthiness Directives; NARCO Avionics Inc. AT150 Transponders

A Proposed Rule by the [Federal Aviation Administration](#) on [02/20/2003](#)

### Summary

The Federal Aviation Administration (FAA) proposes to adopt a new airworthiness directive (AD) that is applicable to certain serial numbers (SN's) of NARCO Avionics Inc. AT150 transponders. This proposal would require modification to the transponder by adding a resistor and transistor to the circuit board. This proposal is prompted by reports of AT150 transponders not recognizing and responding properly to Mode S interrogations from Mode S ground stations and Traffic Alert and Collision Avoidance System (TCAS-II) airborne equipment. The actions specified by the proposed AD are intended to prevent loss of aircraft airspace separation and the possibility of mid-air collision.

### Unified Agenda

#### Airworthiness Directives

1 action from December 2011

- December 2011
  - Actions Will Continue Through

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## DATES:

Comments must be received by April 21, 2003.

## ADDRESSES:

Submit comments in triplicate to the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 2002-NE-32-AD, 12 New England Executive Park, Burlington, MA 01803-5299. Comments may be inspected at this location, by appointment, between 8 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays. Comments may also be sent via the

Internet using the following address: “[9-ane-adcomment@faa.gov](mailto:9-ane-adcomment@faa.gov)”. Comments sent via the Internet must contain the docket number in the subject line.

The service information referenced in the proposed rule may be obtained from NARCO Avionics Inc., 270 Commerce Drive, Fort Washington, PA 19034; telephone (215) 643-2905; fax (215) 643-2007. This information may be examined, by appointment, at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA.

## **FOR FURTHER INFORMATION CONTACT:**

Balram Rambrich, Aerospace Engineer, New York Aircraft Certification Office, FAA, Engine and Propeller Directorate, 10 Fifth Street, 3rd floor, Valley Stream, NY 11581-1200; telephone (516) 256-7507; fax (516) 256-2716.

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications should identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this action may be changed in light of the comments received.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this action must submit a self-addressed, stamped postcard on which the following statement is made: “Comments to Docket Number 2002-NE-32-AD.” The postcard will be date stamped and returned to the commenter.

### **Availability of NPRM's**

Any person may obtain a copy of this NPRM by submitting a request to the FAA, New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 2002-NE-32-AD, 12 New England Executive Park, Burlington, MA 01803-5299.

### **Discussion**

On March 20, 2002, the FAA was made aware of twelve AT150 transponders that failed to recognize and respond to Mode S interrogations from Mode S ground stations and TCAS-II airborne equipment during random testing performed by FAA Flight Standards safety inspectors. Subsequently, the manufacturer determined that “Chassis Level A” AT150 transponders have a design error, which causes the P4 pulse not to be presented, causing the transponders to shut down. This condition, if not corrected, could result in loss of aircraft airspace separation, and the possibility of mid-air collision. This proposal is only applicable to NARCO Avionics Inc. AT150 transponders with “Chassis Level A”, serial numbers 10000 through 12598 inclusive.

## **Manufacturer's Service Information**

The FAA has reviewed and approved the technical contents of NARCO Avionics Inc. service bulletin (SB) AT150 No. 6, dated January 31, 2003, that describes procedures for modification of the affected transponders, by adding a resistor and transistor to the circuit board to allow proper operation and changing them to “Chassis Level B”. The SB also describes procedures for transponder testing after the modification is complete.

## **FAA's Determination of an Unsafe Condition and Proposed Actions**

Since an unsafe condition has been identified that is likely to exist or develop on other NARCO Avionics Inc. AT150 transponders of the same type design, the proposed AD would require:

- For transponders not modified in accordance with NARCO Avionics Inc. service bulletin (SB) AT150 No. 1, dated July 29, 1977, modification of “Chassis Level A” transponders, serial numbers 10000 through 12598 inclusive, by adding a resistor and transistor to the circuit board, changing transponder to “Chassis Level B”, and transponder testing after the modification; AND
- For transponders modified in accordance with NARCO Avionics Inc. SB AT150 No. 1, dated July 29, 1977, changing transponder to “Chassis Level B”, and transponder testing.

The actions would be required to be done in accordance with the service bulletin described previously.

## **Economic Analysis**

The FAA estimates that 2,598 NARCO Avionics Inc. “Chassis Level A” AT150 transponders could be affected by this proposal if all were installed in aircraft of U.S. registry. Approximately one work hour per transponder will be needed to perform the proposed actions, at an average labor rate of \$60 per work hour. Required parts would cost approximately \$12 per transponder. Based on these figures, the total estimated cost of the proposed AD to U.S. operators could be \$187,056.

## **Regulatory Analysis**

This proposed rule does not have federalism implications, as defined in Executive Order 13132, because it would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Accordingly, the FAA has not consulted with state authorities prior to publication of this proposed rule.

For the reasons discussed above, I certify that this proposed regulation (1) is not a “significant regulatory action” under Executive Order 12866; (2) is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) if promulgated, will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A copy of the draft regulatory evaluation prepared for this action is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption ADDRESSES.

## List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

## The Proposed Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration proposes to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

## PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

### Authority:

49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

NARCO Avionics Inc. AT150 Transponders: Docket No. 2002-NE-32-AD.

Applicability: This airworthiness directive (AD) is applicable to NARCO Avionics Inc. AT150 transponders with “Chassis Level A”, serial numbers (SN's) 10000 through 12598 inclusive. These transponders might be installed on, but not limited to the following aircraft:

## **Cessna Aircraft Company**

172, 182, R182, T182, 206, P206, U206, TP206, 210, T210, P210, 310, E310, T310, and 421 series airplanes.

## **Twin Commander Aircraft Company**

500, 520, 560, 680, 681, 685, 690, 695, and 720 series airplanes.

## **The New Piper Aircraft Corporation**

PA-31, PA-32, and PA-34 series airplanes.

## **Raytheon Aircraft Company**

E33, F33, G33, 35, J35, K35, L35, M35, P35, S35, V35, 36, A26, B36, D55,E55, 56, A56, 58, 58A, 95, B95, D95, and E95 series airplanes.

## **Mooney Aircraft Corporation**

M20 series airplanes.

## **McDonnell Douglas Helicopter Company**

Model 500N rotorcraft.

### **Note 1:**

This AD applies to each transponder identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For transponders that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (c) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

### **Compliance**

Compliance with this AD is required as indicated, unless already done.

To prevent loss of aircraft airspace separation, and the possibility of mid-air collision, do the following:

## **Transponders Not Modified In Accordance With Service Bulletin AT150 No. 1**

(a) For AT150 transponders with a SN listed in this AD that are not modified in accordance with service bulletin (SB) AT150 No. 1, dated July 29, 1977, within six months after the effective date of this AD, do the following:

- (1) Install resistor part number (P/N) 755610028 and transistor P/N 312180102; and
- (2) Change transponder to “Chassis Level B”; and
- (3) Test transponders in accordance with the Corrective Action, Testing the Modification, and Return to Service paragraphs of SB AT150 No. 6, dated January 31, 2003.

## **Transponders Modified In Accordance With Service Bulletin AT150 No. 1**

(b) For AT150 transponders with a SN listed in this AD, that are modified in accordance with SB AT150 No. 1, dated July 29, 1977, do the following:

- (1) Within six months after the effective date of this AD, change transponder to “Chassis Level B”; and
- (2) Test transponders in accordance with the Testing the Modification paragraph of SB AT150 No. 6, dated January 31, 2003; and
- (3) Perform a bench test to the transponder before returning it to service. Information on bench testing can be found in AT150 Manual P/N 03606-0600.

## **Alternative Methods of Compliance**

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, New York Aircraft Certification Office. Operators must submit their request through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, New York Aircraft Certification Office.

## **Note 2:**

Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the New York Aircraft Certification Office.

## **Special Flight Permits**

(d) Special flight permits may be issued in accordance with §§ 21.197 and 21.199 of the Federal Aviation Regulations ([14 CFR 21.197](#) and 21.199) to operate the aircraft to a location where the requirements of this AD can be done.

Issued in Burlington, Massachusetts, on February 12, 2003.

Francis A. Favara,

Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.

[FR Doc. 03-4056 Filed 2-19-03; 8:45 am]

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