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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2007-28689; Directorate Identifier 2006-SW-17-AD; Amendment 39-15832; AD 2009-05-08]**

**RIN 2120-AA64**

### **Airworthiness Directives; Trimble or FreeFlight Systems 2101 I/O Approach Plus Global Positioning System (GPS) Navigation Systems**

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Final rule.

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**SUMMARY:** This amendment adopts a new airworthiness directive (AD) for the Trimble or FreeFlight Systems 2101 I/O Approach Plus global positioning system (GPS) navigation system (2101 I/O Approach Plus system) that requires a software upgrade for this system. This amendment is prompted by an incident that led to the discovery of several annunciation errors with the 2101 I/O Approach Plus system. The actions specified by this AD are intended to prevent a pilot from making an unsafe decision based on erroneous information provided by the 2101 I/O Approach Plus system, which could result in loss of control of the aircraft.

**DATES:** Effective April 20, 2009.

**ADDRESSES:** You may get the service information identified in this AD from FreeFlight Systems, 3700 IH 35, Waco, Texas, USA, 76706, or by calling (254) 662-0000 or on the Internet at <http://www.freeflightsystems.com>.

Examining the Docket: You may examine the docket that contains this AD, any comments, and other information on the Internet at <http://www.regulations.gov> or at the Docket Operations office, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC.

**FOR FURTHER INFORMATION CONTACT:** Sung-Hui Cavazos, Aviation Safety Engineer, FAA, Rotorcraft Directorate, Special Certification Office, Fort Worth, Texas 76193-0190, telephone (817) 222-5142, fax (817) 222-5785.

**SUPPLEMENTARY INFORMATION:** A proposal to amend 14 CFR part 39 to include an AD for the specified navigation system was published in the Federal Register on July 13, 2007 (72 FR 38532). That action proposed to require, within 180 days after the effective date of the AD for aircraft

approved for instrument flight rule (IFR) flight, or 270 days after the effective date of the AD for aircraft approved for visual flight rule (VFR) flight, upgrading the 2101 I/O Approach Plus system software to correct several software errors.

Freeflight Systems issued Service Information Letter (SIL) 81440-XX-00-17, dated November 7, 2005, when the manufacturer believed that software version 241H would correct the erroneous information displays. However, version 241H did not correct all the errors. Therefore, FreeFlight Systems issued SIL 81440-XX-00-19, dated May 10, 2006, which describes the release of new operating system software, version 241J, "that makes communication between the Host and the GPS processors more robust." Freeflight Systems subsequently issued Service Bulletin No. SB 81440-XX-00-19, dated December 12, 2006, that contains the instructions for obtaining and upgrading the software to version 241J. Although the proposed AD included a Note referencing SIL 81440-XX-00-17, this AD references the most recently available service information, Service Bulletin No. SB 81440-XX-00-19, dated December 12, 2006.

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

The commenter, FreeFlight Systems, states that "the proposed AD specifies 81440-13-XXXX as being applicable for this upgrade. The 81440-13-XXXX is a number assigned for an NVG (night vision goggles) version of the 81440 that was never put into production so no units exist that would require this upgrade. The 81440-13-XXXX was included in error in the AD Worksheet identifying applicable systems provided to the FAA by FreeFlight Systems." Therefore, part number (P/N) 81440-13-XXXX (where XXXX is -241E, -241F, or 241G) should be removed from the AD. The FAA concurs and has removed those P/Ns from the AD.

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the changes described previously. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

The FAA estimates that this AD will affect 259 2101 I/O Approach Plus systems installed on aircraft of U.S. registry, and the required actions will take approximately 2 work hours per aircraft to accomplish at an average labor rate of \$80 per work hour. Required parts will cost approximately \$300 per aircraft. Based on these figures, we estimate the total cost impact of the AD on U.S. operators to be \$72,520, assuming one 2101 I/O Approach Plus system is installed on each aircraft, the manufacturer will provide all \$300 in parts at no cost, and the only costs for these parts will be \$120 for shipping costs for each unit.

## **Regulatory Findings**

We have determined that this AD will not have federalism implications under Executive Order 13132. This AD will 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.

For the reasons discussed above, I certify that the 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. 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.

We prepared an economic evaluation of the estimated costs to comply with this AD. See the AD docket to examine the economic evaluation.

## **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in subtitle VII, part A, subpart III, section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Safety.

## **Adoption of the Amendment**

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends 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 a new airworthiness directive to read as follows:



**2009-05-08 Trimble or Freeflight Systems:** Amendment 39-15832. Docket No. FAA-2007-28689; Directorate Identifier 2006-SW-17-AD.

### **Applicability**

All aircraft with a Trimble or FreeFlight Systems 2101 I/O Approach Plus global positioning system (GPS) navigation system (2101 I/O Approach Plus system), part number 81440-xx-241E, 81440-xx-241F, or 81440-xx-241G (xx indicates either the numbers 02, 03, or 12), with software revision -241E, -241F, or 241G, installed, certificated in any category.

### **Compliance**

Required within 180 days after the effective date of this AD for aircraft approved for instrument flight rule (IFR) flight, or 270 days after the effective date of this AD for aircraft approved for visual flight rule (VFR) flight, unless accomplished previously.

To prevent a pilot from making an unsafe decision based on erroneous information provided by the 2101 I/O Approach Plus system, which could result in loss of control of the aircraft, accomplish the following:

(a) Upgrade the system software of any Trimble or FreeFlight Systems 2101 I/O Approach Plus GPS navigation system, part number (P/N) 81440-xx-241E, 81440-XX-241F, or 81440-xx-241G (xx indicates the numbers 02, 03, or 12), that currently has software revision -241E, -241F, or -241G, to system software revision, P/N 81440-XX-241J.

Note: Sections II and III of FreeFlight Systems Service Bulletin No. SB 81440-XX-00-19, dated December 12, 2006, pertains to the requirements of this AD.

(b) Upgrading the Trimble or FreeFlight Systems 2101 I/O Approach Plus GPS Navigation System's software, to system software revision, P/N 81440-xx-241J, is considered a terminating action for the requirements of this AD.

(c) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Contact the Manager, Special Certification Office, FAA, ATTN: Sung-Hui Cavazos, Aviation Safety Engineer, FAA, Rotorcraft Directorate, Special Certification Office, Fort Worth, Texas 76193-0190, telephone (817) 222-5142, fax (817) 222-5785, for information about previously approved alternative methods of compliance.

(d) Special flight permits may be issued in accordance with 14 CFR 21.197 and 21.199 to operate the aircraft to a location where the requirements of this AD can be accomplished provided that the aircraft is operated under VFR only.

(e) This amendment becomes effective on April 20, 2009.

Issued in Fort Worth, Texas, on February 19, 2009.  
Scott A. Horn,  
Acting Manager, Rotorcraft Directorate,  
Aircraft Certification Service.