U.S. Department
of Transportation
**Federal Aviation
Administration**

Office of the Chief Counsel

Office of the Chief Counsel
800 Independence Ave., SW.
Washington, DC 20591

AUG 22 2013

John D. Collins
[redacted]

Dear Mr. Collins:

This is in response to your September 20, 2012, email to Rebecca MacPherson requesting an interpretation of section 91.227, Automatic Dependent Surveillance-Broadcast (ADS-B) Out equipment performance requirements codified in Title 14 of the Code of Federal Regulations (14 CFR) § 91.227. I apologize for the delay in response.

Section 91.227, paragraph (d) provides the minimum broadcast message elements set for ADS-B Out. Under this provision, each aircraft must broadcast the elements listed in subparagraphs (1) through (19) of that paragraph. Specifically, subparagraph (13) provides an "indication of whether an ADS-B In capability is installed."

You state that there are portable ADS-B receivers on the market today that are being used by pilots to receive Flight Information Service – Broadcast (FIS-B). You further state that a "portable unit is not normally considered as being installed. It would be easy to set the appropriate register bits in the ADS-B Out equipment, but would this be in conflict with the regulation?"

In promulgating the ADS-B Out final rule and with respect to this particular broadcast element, the FAA adopted regulatory text different from that proposed. In the Notice of Proposed Rulemaking, the FAA proposed this message to indicate to ATC whether a Cockpit Display of Traffic Information (CDTI) is installed and operational. A number of commenters objected to this provision as poorly defined, difficult and expensive to implement and of little value for ADS-B In and surveillance. In reviewing the NPRM and the submitted comments, the FAA concluded that as the definition of this message element was updated by RTCA in DO-260B and DO-282B[1], and subsequently adopted in the appropriate Technical Standards Orders (TSO),[2] it was appropriate to modify the proposed regulatory text. Therefore, the FAA stated in the preamble to the final rule that "This message element now indicates which aircraft are capable of receiving ADS-B In services

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[1] See RTCA DO-260B Section 2.2.3.2.7.2.3.3 "1090ES IN" CC Code Subfield in Aircraft Operational Status Messages and RTCA DO-260B Section 2.2.3.2.7.2.3.9 "UAT IN" CC Code Subfield in Aircraft Operational Status Messages.

[2] TSO-C166b, Extended Squitter Automatic Dependent Surveillance – Broadcast and Traffic Information Service –Broadcast Equipment Operating on the Radio Frequency of 1090 Megahertz; TSO-C154c, Universal Access Transceiver Automatic Dependent Surveillance – Broadcast Equipment Operating on Frequency of 978 MHz.

and therefore require TIS-B and ADS-R transmissions from the ground. Under the new definition, this message element now indicates whether ADS-B In capability is installed in the aircraft, but does not require a report of operational status."[3]

The FAA's intent was for this message element to indicate that the aircraft has the capability to receive ADS-B In services, not necessarily that this capability be installed. The use of the word "installed" in this section is confusing, given the specific terminology in the above-referenced RTCA documents. The FAA did not intend to restrict the designation of ADS-B In capability if using portable ADS-B In receivers. Therefore, we have advised the relevant FAA program offices of this opinion and request that they consider regulatory action to address this issue.

This response was prepared by Lorelei Peter, a Senior Attorney in the International Law, Legislation and Regulations Division of the Office of the Chief Counsel, and coordinated with the Aircraft Certification Service (AIR-130), the Flight Standards Service (AFS-400), and the Airspace Regulation & Procedures Group, Air Traffic Organization. If you have additional questions regarding this matter, please contact us at your convenience at (202) 267-3073.

Sincerely,

Mark W. Bury
Acting Assistant Chief Counsel for International Law,
Legislation and Regulations Division, AGC-200

[3] See 75 Fed. Reg. 30175.