



4910-13

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

[Docket No. FAA-2019-0781]

Agency Information Collection Activities: Requests for Comments; Clearance of Renewed Approval of Information Collection: Automatic Dependent Surveillance Broadcast (ADS-B) Out Performance Requirements To Support Air Traffic Control (ATC) Service

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice and request for comments.

SUMMARY: In accordance with the Paperwork Reduction Act of 1995, the FAA invites public comments about our intention to request the Office of Management and Budget (OMB) approval to renew a previously approved information collection. On May 28, 2010, the FAA published the final rule, entitled *Automatic Dependent Surveillance Broadcast (ADS-B) Equipage Mandate To Support Air Traffic Control Service*. 75 FR 30160. As of January 2, 2020, when operating in the airspace designated in 14 CFR § 91.225(a), (b) and (d), operators must be equipped with ADS-B Out avionics that meet the performance requirements of 14 CFR § 91.227. ADS-B supports the aircraft surveillance needs of the FAA by requiring avionics equipment that meet the performance requirements of 14 CFR § 91.227 and continuously transmit aircraft information to be received by the FAA, via automation, for use in providing air traffic surveillance services. ADS-B is transforming all segments of aviation (e.g., real-time precision shared situational awareness, and advanced applications for pilots and controllers alike).

DATES: Written comments should be submitted by **[insert date 30 days after date of publication in the Federal Register]**.

ADDRESSES: Interested persons are invited to submit written comments on the proposed information collection to the Office of Information and Regulatory Affairs, Office of Management and Budget.

Comments should be addressed to the attention of the Desk Officer, Department of Transportation/FAA

and sent via email to oir_submission@omb.eop.gov, or faxed to (202) 395-6974, or mailed to the Office of Information and Regulatory Affairs, Office of Management and Budget, Docket Library, Room 10102, 725 17th Street NW, Washington, DC 20503.

FOR FURTHER INFORMATION CONTACT: For further questions concerning this action, contact Ms. Ammyanna Williams, Group Manager (A), Surveillance and Broadcast Services, AJM-42, Air Traffic Organization, Federal Aviation Administration, by email at: ammyanna.williams@faa.gov or (202) 267-4128.

SUPPLEMENTARY INFORMATION:

Public Comments Invited: You are asked to comment on any aspect of this information collection, including (a) whether the proposed collection of information is necessary for FAA's performance; (b) the accuracy of the estimated burden; (c) ways for the FAA to enhance the quality, utility, and clarity of the information collection; and, (d) ways that the burden could be minimized without reducing the quality of the collected information. The agency will summarize and/or include your comments in the request for OMB's clearance of this information collection.

OMB Control Number: 2120-0728

Title: Automatic Dependent Surveillance-Broadcast (ADS-B) Out Performance Requirements to Support Air Traffic Control (ATC) Service

Form Numbers: None.

Type of Review: Renewal of an information collection.

Background: The Federal Register Notice with a 60-day comment period soliciting comments on the following collection of information was published on October 16, 2019. 84 FR 55370. The FAA received two non-substantive comments from the same individual that simply restated the docket and OMB Control Number. Neither of these comments required any action.

Title 14 CFR part 91 includes requirements for certain avionics equipment on aircraft operating in specified classes of airspace within the United States National Airspace System (NAS). As of January 2,

2020, unless otherwise authorized by ATC, all aircraft operating in the airspace identified in § 91.225 must comply with the ADS-B Out equipage and performance requirements in §§ 91.225 and 91.227.

Title 14 CFR § 91.225(f) requires that each person operating an aircraft equipped with ADS-B Out must always operate such equipment in the transmit mode unless certain conditions are met. As such, ADS-B equipment will continuously transmit aircraft information in “real time” to a dedicated network of FAA ground receivers. There are currently two types of ADS-B equipment approved for use within the United States: 1090-megahertz (MHz) Mode S extended squitter (ES) and 978 MHz Universal Access Transceiver (UAT).¹

ADS-B Out transmitters broadcast an equipped aircraft’s position, altitude, heading, ground speed, vertical speed, call sign (flight identification), and International Civil Aviation Organization (ICAO) 24-bit aircraft address to dedicated ADS-B ground stations. As ADS-B data is automatically broadcasted by each equipped aircraft,^{2 & 3} to ADS-B ground stations, within range, the collected data is integrated with traditional radar targets and used by air traffic controllers to support separation assurance and traffic flow management.

This network of dedicated ground stations receives and send ADS-B collected data to FAA automation systems to process and then relay information to ATC displays. ADS-B collected data is also used for enhanced safety alerting functions such as a minimum safe altitude warnings and traffic conflict alerts. Operationally, ADS-B collected information is continually integrated with radar returns to create a safer and more efficient NAS. ADS-B collected data is integrated into automation platforms at 24 FAA en route ATC facilities, which encompasses 20 continental U.S. En Route Automation Modernization (ERAM)⁴ sites, and 4 overseas Microprocessor-En Route Automated Radar Tracking System

¹ Aircraft that only fly below 18,000 feet and only in the U.S. can opt instead of Mode S ES (1090ES) for a dedicated 978 MHz UAT. The 978 MHz UAT frequency will allow aircraft owners/operators to keep an existing Mode C or Mode S transponder.

² These ADS-B data broadcasts can also be received by other aircraft, appropriate equipped for ADS-B In, to allow pilots knowledge of nearby air traffic.

³ General aviation operators who equip with 978 MHz or UAT receivers can also benefit from having access to a variety of no-cost flight information services, including near-real time composite weather radar images, winds, lightning, and terminal weather forecasts.

⁴ En Route Automation Modernization (ERAM) is used at FAA high altitude en-route centers. ERAM processes flight and surveillance data, provides communications and generates display data to air traffic controllers.

(MEARTS).⁵ ADS-B collected data is also fused into flight tracker automation at 155 Terminal Radar Approach Control Facilities (TRACONs).⁶

ADS-B collected data provides (ATC) with a more accurate and timelier surveillance picture allowing ATC to make more-informed decisions, quickly and effectively. The use of ADS-B collected data has enabled more efficient aircraft separation and increased aircraft capacity in the NAS. In many areas of the NAS, ADS-B collected data provides better surveillance at lower altitudes and in areas that previously had limited-to-no radar coverage.

This collection of ADS-B broadcasted data supports the aircraft surveillance needs of the FAA. ADS-B Out moves ATC from a radar-based system to a satellite-derived aircraft location system with capabilities for reducing lateral and longitudinal separation standards. Aircraft equipped with ADS-B Out enhance the air traffic controller's awareness of aircraft in the airspace. Radars used today can take anywhere from 5 to 12 seconds to update an aircraft's position. ADS-B equipment provides ATC with updated aircraft information almost every second. This “real time” information collection enables controllers to quickly and effectively identify and resolve potentially hazardous situations. Moreover, ADS-B coverage exists at lower altitudes than some current ATC radars.

ATC is currently using ADS-B collected data to control air traffic across the nation. The collection of ADS-B Out broadcasted information from an aircraft via an automated receiver on the ground is solely done through electronic means. The ADS-B ground stations are small and easily maintained and can be placed in areas where radar use is not possible. New, state-of-the-art computer systems have been deployed to ATC facilities across the country. These systems, the Standard Terminal Automation Replacement System (STARS) and the En Route Automation Modernization (ERAM), are enabling ADS-B capabilities for FAA air traffic controllers.

⁵ Microprocessor-En Route Automated Radar Tracking System (MEARTS) is an automated radar and radar beacon tracking system capable of employing both short-range (airport surveillance radar) and long range (air route surveillance radar) radars. Install at 4 overseas MEARTS facilities to include Anchorage, Honolulu, San Jan and Guam.

⁶ Terminal Radar Approach Control Facilities (TRACONs) are facilities where air traffic controllers use integrated radar, ADS-B and Wide-Area Multilateration (WAM) data to guide aircraft approaching and departing airports generally within a 30- to 50-mile radius up to 10,000 feet, as well as aircraft that may be flying over that airspace.

As part of the renewal process, OMB requests an estimate of the hour burden imposed to the public for the collection of information. ADS-B equipment is *automatic* because it periodically transmits position information with no pilot or operator involvement required. ADS-B data is collected electronically, without input by a human operator. Subsequently, a 1-second burden is submitted as a placeholder to allow entry in OMB's burden inventory.

Respondents: As of May 1, 2020, FAA network has detected 122,051⁷ aircraft as having successfully installed ADS-B Out equipment. The FAA anticipates approximately another 57,000 General Aviation (GA) aircraft [19,000 as a placeholder] over the next three years, will eventually be equipping with ADS-B Out equipment and automatically broadcasting data to be collected and used by ATC to support separation assurance and traffic flow management.

Frequency: ADS-B information is collected automatically by a dedicated network of FAA ground receivers each time an aircraft, continuously and in almost real-time, transmits its identity and GPS-derived navigational information. Title 14 CFR § 91.225(f) requires that each person operating an aircraft equipped with ADS-B Out must always operate such equipment in the transmit mode unless certain conditions are met.

Estimated Average Burden per Response: 1 second (placeholder).

Estimated Total Annual Burden on Respondents: 39 hour (placeholder).

Issued in Washington, DC, on June 10, 2020.

James C. Tertocha,

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Surveillance and Broadcast Services (SBS)

Program Management Organization, Air Traffic Organization,

Federal Aviation Administration.

⁷ 6,527 air carrier, 103,140 general aviation (GA), 3,037 International Air Carrier, 6,431 International GA and 2,916 U.S. Military and U.S. Special Use.

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