



ICAO

International Civil Aviation Organization

**Fifth Meeting of the Surveillance Implementation
Coordination Group (SURICG/5)**

Web-conference, 22 – 24 September 2020

Agenda Item 5: Update on surveillance activities and explore potential cooperation opportunities

a) States/Administrations

AIRSPACE APPLICABILITY OF THE U.S. 2020 ADS-B EQUIPAGE MANDATE

(Presented by United States/Federal Aviation Administration)

SUMMARY

In 2010, the U.S. published a regulatory requirement for all aircraft operating within certain airspace to be equipped with ADS-B Out equipment after January 1, 2020. The FAA is promoting awareness of operations which are subject to this equipage mandate in U.S. sovereign airspace away from the U.S. mainland.

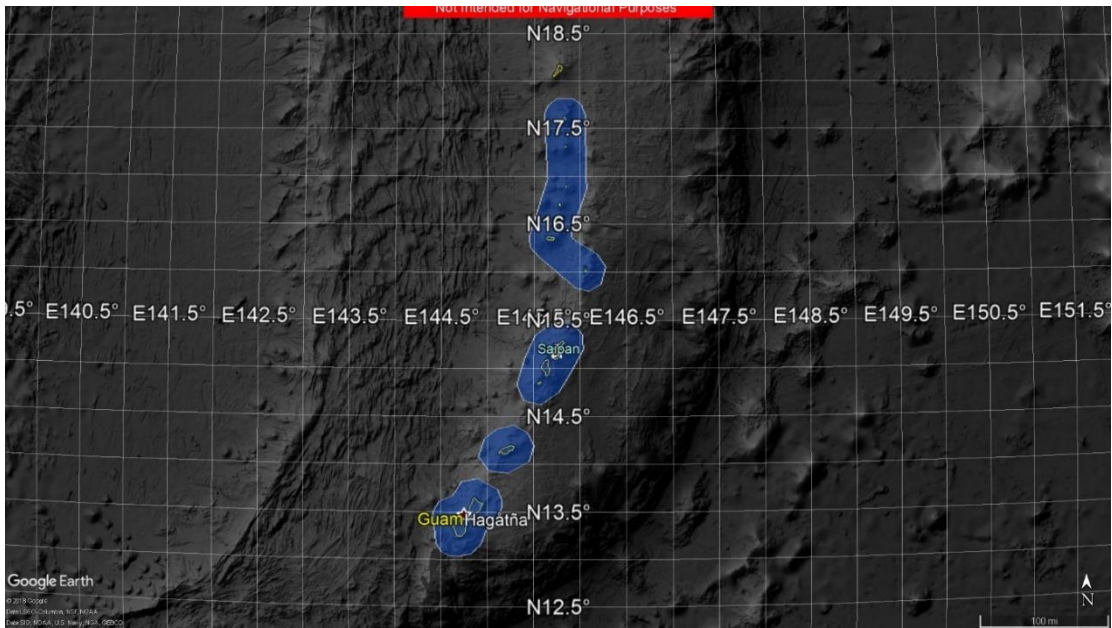
1. INTRODUCTION

- 1.1 Automatic Dependent Surveillance – Broadcast (ADS-B) is an important underlying technology in the U.S. Federal Aviation Administration’s (FAA’s) plan to transform Air Traffic Control (ATC) from the current system to the Next Generation Air Transportation System (NextGen). ADS-B is bringing the precision and reliability of satellite-based navigation to surveillance in the U.S.
- 1.2 In May 2010, the FAA published a regulatory requirement for all aircraft operating within certain airspace to be equipped with ADS-B Out Version 2 after January 1, 2020, in accordance with Title 14 of the U.S. Code of Federal Regulations (14 CFR), sections (§§) 91.225 and 91.227. [See “Automatic Dependent Surveillance – Broadcast (ADS-B) Out Performance Requirements to Support Air Traffic Control (ATC) Service Final Rule” (75 FR 30160; May 28, 2010; Docket No. FAA-2007-29305)]
- 1.3 This requirement affects all flights within the airspace specified in 14 CFR §91.225. Foreign aircraft operating within the affected airspace must be equipped with compliant ADS-B Out technology. To assist in understanding the affected airspace, the FAA provides a Google Earth file showing the airspace where ADS-B Version 2 is required as specified in §91.225. This Google Earth file can be found at: <https://www.faa.gov/nextgen/equipadsb/research/airspace/media/2020ADS-BAirspaceMap.kmz>.

2. DISCUSSION

- 2.1 Under U.S. law, 14 CFR §91.225 (the U.S. ADS-B mandate) applies only to the sovereign airspace of the United States. U.S. sovereign airspace is defined as any airspace which is over the land regions comprising the constituent States of the U.S., the District of Columbia, Puerto Rico, Guam, and all other territories or possessions of the United States, including the territorial waters surrounding these land regions out to 12 nautical miles from their coastlines.
- 2.2 The U.S. ADS-B mandate does not apply to U.S.-managed international airspace, nor to any airspace which the U.S. manages under an agreement with another country, unless it is specifically included in the agreement. Note that in some airspace where the U.S. ADS-B mandate does not apply, aircraft which are equipped with ADS-B Version 2 (TSO-C166b or TSO-C154c) may receive preferential ATC services from the FAA.
- 2.3 FAA policy for aircraft without TSO-C166b avionics operating over U.S. Pacific territories is summarized in sections 2.3.1-2.3.3. This material is drawn from the contents of “Notices to Airmen Domestic/International,” dated 10-Oct-2019, section 2, pages 2-INTL-26 to 2-INTL-27. See http://www.faa.gov/air_traffic/publications/notices/media/10_10_19_ntap.pdf,
- 2.3.1. Several U.S. territories have Class A airspace defined over them¹, and the provisions of the U.S. ADS-B mandate apply in Class A U.S. sovereign airspace. These territories include the following:
Caribbean: Navassa Island, Puerto Rico, U.S. Virgin Islands
Pacific: American Samoa, Baker Island, Guam, Howland Island, Jarvis Island, Johnston Atoll, Kingman Reef, Midway Atoll, Northern Mariana Islands, Palmyra Atoll, Wake Atoll.
None of these territories have any other type of airspace subject to the U.S. ADS-B mandate.
- 2.3.2. The following U.S. territories do not have FAA ADS-B coverage over them at this time:
Caribbean: Navassa Island
Pacific: American Samoa, Baker Island, Howland Island, Jarvis Island, Johnston Atoll, Kingman Reef, Midway Atoll, Palmyra Atoll, and that portion of the Commonwealth of the Northern Mariana Islands which lies north of latitude North 17 degrees 49 minutes.
- Until FAA ADS-B coverage exists over these locations, FAA will not devote resources to identifying aircraft without TSO-C166b avionics that fly through this airspace.
- 2.3.3. For flight operations within the Class A U.S. sovereign airspace of Puerto Rico, U.S. Virgin Islands, Guam and that portion of the Commonwealth of the Northern Mariana Islands which lies south of latitude North 17 degrees 49 minutes (shown in the graphic below), the FAA notes the following expectations:
- a. Operators without equipment meeting the performance requirements in TSO-C166b are expected to plan their routes of flight (including alternate airports) around this airspace; and
 - b. Operators without equipment meeting the performance requirements in TSO-C166b should train their flight crews to decline a voluntary ATC rerouting through this airspace unless required for continued safety of flight (e.g., in-flight emergencies, weather deviations, or diversions, etc.), advising ATC that they are not equipped with appropriate ADS-B avionics. If, however, ATC chooses to proceed with the rerouting, the flight crew should accept and execute the clearance.

¹ 14 Code of Federal Regulations §71.33



Class A U.S. sovereign airspace over Guam and that portion of the Commonwealth of the Northern Mariana Islands which lies south of latitude North 17 degrees 49 minutes
This image was created from the Google Earth file referenced in section 1.3 above.

3. ACTION BY THE MEETING

3.1 The Meeting is invited to:

- a) Note the information provided; and
- b) Encourage States with operators that intend to operate within the affected U.S. airspace to promote awareness of this requirement.
