

**(h) Definition**

For the purpose of this AD, “next access” is defined as when the applicable second stage turbine rotor assembly is removed from the engine.

**(i) Installation Prohibition**

As of the effective date of this AD, do not install second stage turbine rotor assemblies, P/Ns 3102106-1, -6, and -8 and P/Ns 3101514-1, -10, and -12 on any engine.

**(j) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Los Angeles ACO, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (k) of this AD. You may email your request to: [9-ANM-LAACO-AMOC-REQUESTS@faa.gov](mailto:9-ANM-LAACO-AMOC-REQUESTS@faa.gov).

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(k) Related Information**

For more information about this AD, contact Joseph Costa, Aerospace Engineer, Los Angeles ACO Branch, FAA, 3960 Paramount Blvd., Lakewood, CA 90712-4137; phone: 562-627-5246; fax: 562-627-5210; email: [joseph.costa@faa.gov](mailto:joseph.costa@faa.gov).

**(l) Material Incorporated by Reference**

None.

Issued in Burlington, Massachusetts, on October 23, 2018.

**Karen M. Grant,**

*Acting Manager, Engine and Propeller Standards Branch, Aircraft Certification Service.*

[FR Doc. 2018-23775 Filed 11-2-18; 8:45 am]

**BILLING CODE 4910-13-P**

**DEPARTMENT OF TRANSPORTATION****Federal Aviation Administration****14 CFR Part 39**

[Docket No. FAA-2018-0326; Product Identifier 2018-CE-006-AD; Amendment 39-19464; AD 2018-21-06]

**RIN 2120-AA64**

**Airworthiness Directives; SOCATA Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

**SUMMARY:** We are superseding Airworthiness Directive (AD) 98-16-03 for SOCATA Model TB 9 and Model TB

10 airplanes. This AD results from mandatory continuing airworthiness information (MCAI) issued by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as fatigue cracking of the wing front attachments on the wing and fuselage sides. We are issuing this AD to require actions to address the unsafe condition on these products.

**DATES:** This AD is effective December 10, 2018.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of December 10, 2018.

**ADDRESSES:** You may examine the AD docket on the internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0326; or in person at Docket Operations, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

For service information identified in this AD, contact SOCATA, Direction des services, 65921 Tarbes Cedex 9, France; phone: +33 (0) 5 62 41 73 00; fax: +33 (0) 5 62 41 76 54; email: [info@socata.daher.com](mailto:info@socata.daher.com); internet: <https://www.mysocata.com/login/accueil.php>. You may view this referenced service information at the FAA, Policy and Innovation Division, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148. It is also available on the internet at <http://www.regulations.gov> by searching for Docket No. FAA-2018-0326.

**FOR FURTHER INFORMATION CONTACT:**

Quentin Coon, Aerospace Engineer, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4168; fax: (816) 329-4090; email: [quentin.coon@faa.gov](mailto:quentin.coon@faa.gov).

**SUPPLEMENTARY INFORMATION:****Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 98-16-03, Amendment 39-10677 (63 FR 40359, July 29, 1998) (“AD 98-16-03”). The NPRM was published in the **Federal Register** on May 9, 2018 (83 FR 21199), and proposed to correct an unsafe condition for SOCATA Model TB 9, Model TB 10, and Model TB 200 airplanes. We based the NPRM on MCAI originated by an aviation authority of another country. The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States

of the European Community, issued EASA AD No. 2018-0030, dated January 31, 2018 (referred to after this as “the MCAI”). The MCAI states that:

During a scheduled maintenance inspection, cracks were found on the wing front attachments of a TB 10 aeroplane.

This condition, if not detected and corrected, could affect the structural integrity of the aeroplane.

Prompted by these findings, SOCATA issued SB 10-081-57 to provide inspection and modification instructions, and DGAC France issued AD 94-264(A), later revised, to require repetitive inspections of wing front attachments of TB 9 and TB 10 aeroplanes (all MSN up to 822 inclusive, with some excluded). That [DGAC France] AD also required installation of reinforcement kits, applied as repair (if cracks were found) or as modification (if no cracks were found), of the wing front attachments, on both wing and fuselage sides, and repetitive replacement of those reinforcements afterwards.

Since DGAC France AD 94-264(A) R1 was issued, cracks have been found on wing front attachments, on the wing side, on TB10 aeroplanes to which the AD did not apply, *i.e.* which were not subject to repetitive inspections as required by that [DGAC France] AD. Consequently, SOCATA revised SB 10-081-57 (now at revision (rev) 3), extending the Applicability to all TB 10 aeroplanes, as well as to TB 200 aeroplanes, and improving the repair solution of the wing front attachment on wing side.

For the reason described above, this [EASA] AD retains the requirements of DGAC France AD 94-264(A) R1, which is superseded, expands the Applicability to all MSN for TB 9 and TB 10 aeroplanes and includes TB 200 aeroplanes, and requires an improved repair solution of the wing front attachment on wing side.

The MCAI can be found in the AD docket on the internet at: <https://www.regulations.gov/document?D=FAA-2018-0326-0003>.

**Comments**

We gave the public the opportunity to participate in developing this AD. The following presents the comment received on the proposal and the FAA’s response to the comment.

**Request for an Explanation of Compliance Time**

Daher requested that we explain why the compliance times in the NPRM are presented in landings and do not match the compliance times in the EASA AD, which uses both hours time-in-service (TIS) and number of landings.

The NPRM retained the compliance times from AD 98-16-03, which were based in landings instead of hours TIS. The NPRM also retained the formula for converting hours TIS to landings from AD 98-16-03 for airplanes with an unknown number of landings. Because we also retained the effective date of AD

98–16–03 for certain actions, we determined the NPRM would not use both landings and hours TIS, as in the EASA AD.

### Change to the Final Rule

In the NPRM, in table 1 to paragraph (g)(1) and table 4 to paragraph (i)(1), we inadvertently referenced the incorrect paragraph designator in the retained compliance times as, “See paragraph (g) of this AD.” In this AD, we corrected the paragraph designator to read, “See paragraph (k) of this AD.”

We also revised the incorporation by reference of the service information to specify the provisions required for each action, instead of the entire service document.

### Conclusion

We reviewed the relevant data, considered the comment received, and determined that air safety and the public interest require adopting the AD as proposed except for the changes previously described and other minor editorial changes. We have determined that these changes:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

### Related Service Information Under 14 CFR Part 51

We reviewed Daher Service Bulletin SB 10–081, Revision 3, dated December 2017. The service bulletin describes procedures for inspecting the front attachments and installing modification kits. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

### Costs of Compliance

We estimate that this AD will affect 126 products of U.S. registry. We also estimate that it would take about 3 work-hours per product to comply with the inspection requirements of this AD. We also estimate that it would take about 25 work-hours per product to comply with the replacement/modification (wing and fuselage sides) requirements of this AD. The average labor rate is \$85 per work-hour. Required parts would cost about \$3,000 per product.

Based on these figures, we estimate the cost of this AD on U.S. operators to be \$677,880, or \$5,380 per product.

In addition, we estimate that any necessary follow-on actions to replace

the wing attachment on the wing side, resulting from the repetitive inspections, would take about 9 work-hours and require parts costing \$3,000, for a cost of \$3,765 per product. We have no way of determining the number of products that may need these actions.

### 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.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to small airplanes, gliders, balloons, airships, domestic business jet transport airplanes, and associated appliances to the Director of the Policy and Innovation Division.

### Regulatory Findings

We 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 this AD:

- (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),
- (3) Will not affect intrastate aviation in Alaska, and

(4) 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.

### Examining the AD Docket

You may examine the AD docket on the internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA–2018–0326; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains the NPRM, the regulatory evaluation, any comments received, and other information. The street address for Docket Operations (telephone (800) 647–5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

### List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 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. The FAA amends § 39.13 by removing Airworthiness Directive (AD) 98–16–03, Amendment 39–10677 (63 FR 40359, July 29, 1998) and adding the following new AD:

**2018–21–06 SOCATA:** Amendment 39–19464; Docket No. FAA–2018–0326; Product Identifier 2018–CE–006–AD.

#### (a) Effective Date

This AD becomes effective December 10, 2018.

#### (b) Affected ADs

This AD replaces AD 98–16–03, Amendment 39–10677 (63 FR 40359, July 29, 1998) (“AD 98–16–03”).

#### (c) Applicability

This AD applies to SOCATA airplanes listed in the following groups, certificated in any category:

- (1) Group 1 airplanes: Model TB 9, all manufacturer serial numbers (MSN); and Model TB 10, MSN 001 through 803, 805, 806, 809 through 815, and 820 through 822; and
- (2) Group 2 airplanes: Model TB 10, MSN 804, 807, 808, 816 through 819, and 823 through 2229; and Model TB 200, all MSNs.

**(d) Subject**

Air Transport Association of America (ATA) Code 57: Wings.

**(e) Reason**

This AD was prompted by mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as fatigue cracking of the wing front attachments on the wing and fuselage sides. We are issuing this AD to prevent fatigue cracking of the wing

front attachments, which could lead to structural failure of the airplane and loss of control.

**(f) Compliance**

Unless already done, do the following actions listed in paragraphs (g) through (j) of this AD. The compliance times of this AD are presented in landings instead of hours time-in-service (TIS). If the number of landings is unknown, multiply the number of hours TIS by 1.5. For the purposes of this AD, the “XX” in the kit numbers can be any numerical value.

**(g) Actions for Airplanes NOT EQUIPPED With Modification Kit OPT109110XX**

(1) Within the compliance time specified in table 1 to paragraph (g)(1) of this AD, do an initial inspection of the wing front attachments on the wing side. Inspect repetitively thereafter at intervals not to exceed 3,000 landings. Follow paragraphs B(1) through B(4) under the Description of Accomplishment Instructions in SOCATA Daher Service Bulletin SB 10–081, Revision 3, December 2017 (SB 10–081, Revision 3).

Table 1 to paragraph (g)(1) of this AD—Front Wing Attachment, Wing Side, Initial Inspection

Compliance Time for Initial Inspection of the Front Wing Attachment, Wing Side (whichever occurs later, A or B)	
A	Before or upon accumulating 3,000 landings on the airplane; or
B	Group 1 airplanes: Within the next 100 landings after September 21, 1998 (the effective date retained from AD 98-16-03). See paragraph (k) of this AD.
	Group 2 airplanes: Within 13 months after the effective date of this AD.

(2) If a crack was found during any inspection required in paragraph (g)(1) of this AD, before further flight, install the modification reinforcement kit OPT10911002 for the front attachment on the wing side. Follow paragraph B(5) under the Description

of Accomplishment Instructions in SB 10–081, Revision 3.

(3) Within the compliance time specified in table 2 to paragraph (g)(3) of this AD, unless already done as corrective action as specified in paragraph (g)(2) of this AD,

install the modification reinforcement kit OPT10911002 for the front attachment on the wing side. Follow paragraph B(5) under the Description of Accomplishment Instructions in SB 10–081, Revision 3.

Table 2 to paragraph (g)(3) of this AD—Front Wing Attachment, Wing Side, Installation of the Reinforcement Modification Kit

Compliance Time for Installation of the Reinforcement Modification Kit (whichever occurs later, A or B)	
A	Before or upon accumulating 12,000 landings on the airplane; or
B	Within the next 75 landings after the effective date of this AD.

**(h) Actions for Airplanes EQUIPPED With Modification Kit OPT109110XX**

(1) Within the compliance time specified in table 3 to paragraph (h)(1) of this AD, do

an initial inspection of the reinforced front attachment on the wing side. Inspect repetitively thereafter at intervals not to exceed 3,000 landings. Follow paragraphs

B(1) through B(4) under the Description of Accomplishment Instructions in SB 10–081, Revision 3.

Table 3 to paragraph (h)(1) of this AD—Front Wing Attachment, Wing Side, Reinforcement Kit Initial Inspection

Compliance Time for Initial Inspection of the Reinforcement Kit (whichever occurs later, A or B)	
A	Before or upon accumulating 6,000 landings on the airplane after installation of the reinforcement modification kit OPT109110XX; or
B	Within the next 75 landings after the effective date of this AD.

(2) Replacing kit OPT109110XX with kit OPT10911002 on an airplane, at intervals not to exceed 6,000 landings, is acceptable to comply with the inspection requirements of paragraph (h)(1) of this AD for that airplane. Follow paragraph B(5) under the Description of Accomplishment Instructions in SB 10-081, Revision 3.

(3) If a crack was found during any inspection required in paragraph (h)(1) of

this AD, before further flight, do the applicable corrective actions. Follow paragraph B(5) under the Description of Accomplishment Instructions in SB 10-081, Revision 3.

**(i) Actions for Group 1 Airplanes**

(1) Within the compliance time specified in table 4 to paragraph (i)(1) of this AD, do an initial inspection of the wing front

attachments on the fuselage side. Inspect repetitively thereafter at intervals not to exceed 3,000 landings. Follow paragraphs B(1) through B(4) under the Description of Accomplishment Instructions in SB 10-081, Revision 3.

Table 4 to paragraph (i)(1) of this AD—Front Wing Attachment, Fuselage Side, Initial Inspection

Compliance Time for Initial Inspection of the Front Wing Attachment, Fuselage Side (whichever occurs later, A or B)	
A	Before or upon accumulating 3,000 landings on the airplane; or
B	Within the next 100 landings after September 21, 1998 (the effective date of this AD retained from AD 98-16-03). See paragraph (k) of this AD.

(2) If a crack was found during any inspection required in paragraph (i)(1) of this AD, before further flight, do the applicable corrective actions. Follow paragraph B(5)

under the Description of Accomplishment Instructions in SB 10-081, Revision 3.

(3) Unless already done as corrective action required in paragraph (i)(2) of this AD, within the compliance time specified in table

5 to paragraph (i)(3) of this AD, reinforce the front attachment on fuselage side. Follow paragraph B(5)(b) under the Description of Accomplishment Instructions in SB 10-081, Revision 3.

Table 5 to paragraph (i)(3) of this AD—Front Wing Attachment, Fuselage Side, Reinforcement Modification

Airplane Models	MSN and Configuration	Compliance Time
TB 9 TB 10	MSN 001 to 399 and 413 airplanes that do not have SOCATA Technical Instruction OPT10-9081-53 (Kit OPT908100) installed	Before or upon accumulating 6,000 landings on the airplane.
	MSN 001 to 399 and 413 airplanes that do have SOCATA Technical Instruction OPT 10-9081-53 (Kit OPT908100) installed	Before or upon accumulating 12,000 landings on the airplane.
TB 9	MSN 400 to 412 and 414 to 2229	
TB 10	MSN 400 to 412, 414 to 803, 805, 806, 809 to 815, and 820 to 822	

(4) Before or upon accumulating 12,000 landings after the reinforcement modification required in paragraph (i)(2) or (3) of this AD, replace the reinforced front attachment on the fuselage side. Follow paragraph B(5)(c) under the Description of Accomplishment Instructions in SB 10–081, Revision 3.

#### (j) Replacement of the Reinforced Front Attachment

Replacement of the reinforced front attachment on the wing side and/or replacement of the reinforced front attachment on the fuselage side does not terminate the inspections required in paragraphs (h)(1) and (i)(1) of this AD. After replacement, the initial and repetitive inspection cycle starts over.

#### (k) Credit for Previous Actions

This AD allows credit for the initial inspections required in paragraphs (g)(1), (h)(1), and (i)(1) of this AD if done before the effective date of this AD by following Socata Service Bulletin No. SB 10–081–57, Revision 1, dated August 1996 or Revision 2, dated January 2017. This AD also allows credit for any replacement that may have been required based on the initial inspection required in paragraphs (g)(1), (h)(1), and (i)(1) of this AD if done before the effective date of this AD by following Socata Service Bulletin No. SB 10–081–57, Revision 1, dated August 1996 or Revision 2, dated January 2017. After the effective date of this AD, you must do any inspections or replacements by following SB 10–081, Revision 3.

#### (l) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, Small Airplane Standards Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Quentin Coon, Aerospace Engineer, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329–4168; fax: (816) 329–4090; email: [quentin.coon@faa.gov](mailto:quentin.coon@faa.gov). Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must instead be accomplished using a method approved by the Manager, Small Airplane Standards Branch, FAA; or the European Aviation Safety Agency (EASA).

#### (m) Related Information

Refer to MCAI EASA No. 2018–0030, dated January 31, 2018; and Socata Service Bulletin No. SB 10–081–57, Revision 1, dated August 1996, or Revision 2, dated January 2017, for related information. The MCAI can be found in the AD docket on the internet at: <https://www.regulations.gov/document?D=FAA-2018-0326-0003>.

#### (n) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference

(IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) SOCATA Daher Service Bulletin SB 10–081, Revision 3, December 2017.

(ii) [Reserved]

(3) For service information identified in this AD, contact SOCATA, Direction des services, 65921 Tarbes Cedex 9, France; phone: +33 (0) 5 62 41 73 00; fax: +33 (0) 5 62 41 76 54; email: [info@socata.daher.com](mailto:info@socata.daher.com); internet: <https://www.mysocata.com/login/accueil.php>.

(4) You may view this service information at FAA, Policy and Innovation Division, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call 816–329–4148. In addition, you can access this service information on the internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA–2018–0326.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Kansas City, Missouri, on October 26, 2018.

Melvin J. Johnson,

*Aircraft Certification Service, Deputy Director, Policy and Innovation Division, AIR-601.*

[FR Doc. 2018-24007 Filed 11-2-18; 8:45 am]

BILLING CODE 4910-13-P

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 91

[Docket No.: FAA-2018-0914]

#### Changes to Surveillance and Broadcast Services

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notification of changes to surveillance and broadcast services.

**SUMMARY:** This action announces changes to the following surveillance and broadcast services (“surveillance services”) after January 1, 2020: Automatic Dependent Surveillance—Broadcast (ADS-B); Traffic Information Service—Broadcast (TIS-B); Automatic Dependent Surveillance—Rebroadcast (ADS-R); and Automatic Dependent Surveillance—Same Link Rebroadcast (ADS-SLR). These service changes will affect aircraft equipped with older ADS-B avionics that do not meet the requirements of 14 CFR 91.225. The service changes will primarily affect aircraft operating in specific airspace areas, though a few service changes will affect aircraft operating throughout the National Airspace System (NAS).

**DATES:** The FAA will initiate the actions described herein on January 2, 2020.

**FOR FURTHER INFORMATION CONTACT:** For technical questions concerning this action, contact: David E. Gray, Program Manager, Surveillance and Broadcast Services, AJM-232, Air Traffic Organization, Federal Aviation Administration, 600 Independence Avenue SW, Washington, DC 20597; telephone: 202-267-3615; email: [adbsb@faa.gov](mailto:adbsb@faa.gov).

#### SUPPLEMENTARY INFORMATION:

##### Background

In 2010, the FAA issued a final rule mandating equipage requirements and performance standards for Automatic Dependent Surveillance—Broadcast (ADS-B) Out avionics on aircraft operating in certain airspace after January 1, 2020 (75 FR 30160, May 28, 2010). Use of ADS-B Out will move air traffic control (ATC) from a radar-based system to a satellite-derived aircraft

location system and enhance aircraft surveillance by the FAA and Department of Defense air traffic controllers. Equipage with ADS-B avionics also provides aircraft operators with a platform for additional flight applications and services, including TIS-B<sup>1</sup> and ADS-R<sup>1</sup>, which will improve a pilot’s situational awareness in aircraft not equipped with a traffic alert and collision avoidance system (TCAS). Under 14 CFR 91.225, after January 1, 2020, to operate in certain airspace, an aircraft must have equipment installed that meets the performance requirements of Technical Standard Order (TSO)—C166b or TSO—C154c (“2020 Equipment”).

Between 2010 and 2014, the FAA completed the ADS-B ground infrastructure. To ensure the benefits of the ADS-B surveillance infrastructure were made available as soon as it was deployed, the FAA enabled aircraft equipped with Pre-2020<sup>2</sup> Equipment to receive TIS-B and ADS-R services even though these aircraft would not be considered rule compliant after January 1, 2020. The FAA also provided ATC surveillance services to aircraft that were equipped with Pre-2020 Equipment outside radar coverage in Alaska and offshore Gulf of Mexico airspace.

##### Service Changes to Operations in Alaska

With regard to operations in Alaska, the FAA funded a project to upgrade Pre-2020 Equipment for aircraft operating within Alaska to ensure these aircraft would meet the 2020 Equipment

<sup>1</sup> TIS-B uses secondary surveillance radars and multilateration systems to provide proximate traffic situational awareness, including position reports from aircraft not equipped with ADS-B Out or providing poor quality ADS-B Out data. TIS-B data does not provide as much information as could be received directly from an aircraft’s ADS-B Out broadcast, because of the information available and required data processing. The TIS-B signal is an advisory service that is not designed for aircraft surveillance or separation, and cannot be used for either purpose.

<sup>2</sup> ADS-R collects traffic information from each ADS-B link and rebroadcasts it to ADS-B In-equipped aircraft on the other ADS-B link as needed. Note that ADS-R services are only available when both aircraft are within range of any ADS-B ground radio station, so there are regions of airspace without ADS-R coverage. ADS-B-In avionics with dual link receive capability neither require nor receive ADS-R.

<sup>3</sup> For purposes of this document, Pre-2020 Equipment refers to aircraft that are in compliance with Technical Standard Order (TSO)—C166a or TSO—C154b. It does not include aircraft that are equipped with avionics compliant with TSO—C166 or TSO—C154a (or earlier). Note that aircraft equipped with ADS-B avionics compliant with TSO—C166 or TSO—C154a (or earlier) have never been provided with FAA TIS-B or ADS-R services or FAA ATC surveillance services using ADS-B.

standards in time for the mandate.<sup>3</sup> This upgrade project will conclude in early 2019. Aircraft flying to and from Anchorage, Alaska and within Class A airspace over Alaska must also be in compliance with § 91.225 after January 1, 2020.

Pursuant to this action, on January 2, 2020, the FAA will begin terminating air traffic control surveillance services outside radar coverage for aircraft with Pre-2020 Equipment. In a 30-day period ending in June 2018 the FAA detected less than 30 aircraft equipped with Pre-2020 Equipment in the Alaskan airspace where the FAA receives ADS-B signals. Therefore, the FAA anticipates that this service change will only affect a small number of aircraft equipped with Pre-2020 Equipment.

##### Service Changes to Operations in the Gulf of Mexico

The provisions of § 91.225 require all aircraft flying in Class E airspace at and above 3,000 feet mean sea level (MSL) over the Gulf of Mexico from the coastline of the United States out to 12 nautical miles to have operational 2020 Equipment (unless otherwise authorized by ATC) after January 1, 2020. As noted, the FAA has been providing surveillance services to approved aircraft with Pre-2020 Equipment operating in this airspace. Pursuant to this action, the FAA will begin terminating these surveillance services after January 1, 2020, to the aircraft with Pre-2020 Equipment. During a 30-day period ending in June 2018, the FAA found less than 10 aircraft with Pre-2020 Equipment were receiving ATC surveillance services in the offshore Gulf of Mexico airspace managed by Houston Center. The FAA has already informally notified these operators that FAA will not provide ATC surveillance services to aircraft equipped with Pre-2020 Equipment after January 1, 2020.

##### Service Changes at Airports With ADS-B Surface Service Volumes

To date, aircraft with Pre-2020 Equipment have been receiving ADS-SLR services in ADS-B surface service volumes (all U.S. airports with Airport Surface Detection Equipment Model X (ASDE-X) or Airport Surface Surveillance Capability (ASSC) systems). After January 1, 2020, in order to reach any airport with an ADS-B surface service volume, an aircraft will pass through airspace requiring 2020 Equipment. Accordingly, after January 1, 2020, the FAA will begin terminating

<sup>3</sup> The aircraft were originally equipped with the Pre-2020 Equipment by the FAA’s Alaska Capstone program in the early 2000s.