



FAA
Flight Technologies and Procedures Division, AFS-400

Fact Sheet: Exemption No. 12555

- 1. Background.** Effective January 1, 2020, all aircraft operating in airspace described in Title 14 of the Code of Federal Regulations (14 CFR) section 91.225 will be required to have an Automatic Dependent Surveillance-Broadcast (ADS-B) Out equipment installed system that meets the performance requirements of 14 CFR §§91.225 and 91.227 (collectively referred to as the ADS-B Out Rule in this document). Essentially, any airspace that requires a transponder today will also require ADS-B Out on January 1, 2020.

 - The ADS-B Out rule specifies ADS-B equipment performance requirements, but the achieved performance depends on the type of Global Positioning System (GPS) receiver that is used as the ADS-B position source. The ADS-B Out rule does not dictate any particular type of GPS receiver or any availability requirement.
 - Three different variants of GPS receivers currently in use by operators satisfy the ADS-B Out performance requirements, to varying degrees. GPS receivers that comply with FAA technical standard order (TSO)-C129 can meet the performance requirements over 95% of the time, but experience brief outages of performance daily. GPS receivers that comply with the performance requirements TSO-C196 can meet the ADS-B Out performance requirements with the current constellation of GPS satellites, and will experience outages when sufficient satellites are out of service or if there are far fewer satellites. Satellite Based Augmentation Systems (SBAS), i.e., the FAA's Wide Area Augmentation System (WAAS) receivers meet the performance requirements under all expected configurations of GPS, including when the number of satellites falls to the minimum commitment of the US government.
- 2. Why grant an exemption?** Airlines for America (A4A) petitioned the Federal Aviation Administration (FAA), on behalf of member airlines, for an exemption from the Navigation Accuracy Category for position (NACp) and Navigation Integrity Category (NIC) requirements in § 91.227(c). A4A stated that navigation receivers suitable for transport category aircraft that would meet the ADS-B Out Rule requirements will not be available for purchase or installation in sufficient quantities until closer to 2020. In order to provide additional time for suitable receivers to be made available, the FAA issued a limited grant of exemption (Exemption 12555) from specific performance requirements of the ADS-B Out rule during certain periods of GPS satellite constellation performance.
- 3. Is this a change to the ADS-B Out rule?** No. Exemption 12555 does not amend or change 14 CFR §§91.225 or 91.227. Operators must still be ADS-B Out equipped, as specified in 14 CFR §§91.225 and 91.227 to fly in rule airspace beginning January 1, 2020.
- 4. What does the exemption do or not do?** Exemption 12555 is a one time, grant of exemption from 14 CFR § 91.227(c) (1)(i) and (iii) for aircraft that are ADS-B Out equipped using qualifying GPS receivers when their performance falls below the requirement and backup surveillance is available. There are certain conditions and limitations for each type of receiver, and it expires December 31, 2024. It is not a time extension from the requirements of the ADS-B rule for aircraft operators/owners or a general relaxation of the rule performance requirements.

5. **What are the conditions and limitations provided in Exemption 12555?** The exemption allows operators with aircraft that use GPS receivers meeting the performance requirements of TSO-C196 to operate in the airspace designated by the rule when they do not meet the accuracy and integrity performance requirements. The FAA has agreed to operate sufficient alternate methods of surveillance to manage the infrequent performance outages that these receivers experience. For operators using TSO-C129 GPS receivers, the exemption allows them to operate in the airspace designated by the rule when they do not meet the accuracy and integrity performance requirements and the FAA determines that there is an acceptable backup means of surveillance for the specific operation. Operators seeking the relief provided under Exemption 12555 must notify the FAA of their intent to comply with the conditions and limitations of the exemption and must develop and submit a detailed plan to the FAA. The specific conditions and limitations are contained in Exemption 12555.
6. **What details must be in the plan?** . The plan must show when the position sources of the aircraft subject to the exemption will be upgraded or the operator will otherwise become fully compliant (for example, an aircraft will be retired and replaced before 2025). The plan must be submitted by August 1, 2018 and be complete prior to January 1, 2020, in that it details each affected aircraft's scheduled date for compliance with 14 CFR § 91.227(c)(1)(i) and (iii) . The operator's plan must include the registration numbers of the affected aircraft and an indication of whether the current position source complies with the performance requirements of TSO-C129 or TSO-C196.
- For aircraft which will be upgraded, the plan must include:
 - ✓ The manufacturer, model, and part number, applicable Service Bulletin, or supplemental type certificate (STC) of the new or upgraded GPS/Global Navigation Satellite System (GNSS) receiver that will replace the existing certified GPS position source,
 - ✓ The upgrade schedule, and
 - ✓ Interim fleet milestones, (e.g., initial installation; 30%, 80%, 100% completion).
 - For aircraft that will not be upgraded, the operator should indicate its plan for operations beyond the expiration of this exemption (e.g., date of planned aircraft retirement).
7. **When does the exemption expire?** The relief granted under Exemption 12555 begins on January 1, 2020, and ends on December 31, 2024, unless sooner superseded or rescinded.
8. **How do I apply for Exemption 12555?** Each interested operator must submit a request to the FAA to use Exemption 12555 and affirm its intentions to comply with the conditions and limitations cited in the exemption. Requests must be submitted through Regulations.gov per Regulatory Docket No. FAA-2015-0971. The operator should attach the request as a comment to the Petition for Exemption; Summaries on Regulations.gov. (See Fact number 10.)
9. **Who may apply for the exemption?** Exemption 12555 is intended to address the performance characteristics associated with certain GPS receivers generally found in air transport aircraft. Such position sources must be compliant with FAA Advisory Circular 20-165(), *Airworthiness Approval of Automatic Dependent Surveillance-Broadcast (ADS-B) Out Systems*, Appendix 2, to be eligible for the exemption. These position sources are capable of meeting the ADS-B performance requirements, but do not meet the ADS-B rule performance requirements under all configurations of the GPS satellites (See Fact number 1). Most other sensors, currently approved and proven to be compatible with ADS-B Out, are SBAS receivers.
10. **Where can I find Exemption 12555?** The petition for exemption, public comments, and grant of exemption can be found at Regulations.gov under Regulatory Docket Number FAA-2015-0971 at <http://www.regulations.gov/#!docketDetail;D=FAA-2015-0971>.