



U.S. Department
of Transportation

**Federal Aviation
Administration**

Aviation Safety

800 Independence Ave
Washington, DC 20591

In the matter of the petition of

**Aircraft Owners and Pilots
Association**

For an exemption from
§ 91.227(d)(8) and (11)
of Title 14, Code of Federal
Regulations

Exemption No **18282**

Regulatory Docket No. **FAA-2018-0978**

DENIAL OF EXEMPTION

By letter dated November 2, 2018, Rune Duke, Senior Director, Airspace and Air Traffic, Aircraft Owners and Pilots Association (AOPA), 421 Aviation Way, Frederick, MD 21701 petitioned the Federal Aviation Administration (FAA) on behalf of AOPA for an exemption from §§ 91.227(d)(8) and (11) of Title 14, Code of Federal Regulations (14 CFR). The proposed exemption, if granted, would allow operators of aircraft equipped with 978 MHz Universal Access Transceiver (UAT) Automatic Dependent Surveillance Broadcast systems (ADS-B) to operate utilizing anonymous mode when: (1) the pilot has filed a VFR flight plan; (2) the pilot has not requested Air Traffic Control (ATC) services; and (3) the operation is outside of rule airspace as provided in 14 CFR § 91.225.

The petitioner requests relief from the following regulation:

Section 91.227(d)(8) and (11) prescribe, in pertinent part, that each aircraft must broadcast information, as defined in TSO-C166b or TSO-C154c. The pilot must enter information for message elements listed in paragraphs (d)(7) through (d)(10) of § 91.227 during the appropriate phase of flight, including:

(8) An indication of the aircraft's call sign that is submitted on the flight plan, or the aircraft's registration number, except when the pilot has not filed a flight plan, has not requested ATC services, and is using a TSO-C154c self-assigned temporary 24-bit address; and

(11) An indication of the aircraft's assigned ICAO 24-bit address, except when the pilot has not filed a flight plan, has not requested ATC services, and is using a TSO-C154c self-assigned temporary 24-bit address.

The petitioner supports its request with the following information:

AOPA seeks an exemption from § 91.227(d)(8) and (11) to allow operators of aircraft equipped with 978 MHz UAT ADS-B systems to operate utilizing anonymous mode when: (1) the pilot has filed a VFR flight plan; (2) the pilot has not requested ATC services; and (3) the operation is outside of rule airspace.

AOPA explains that aircraft operators equipped with a Mode C transponder desire the ability to retain an equivalent level of privacy when operating in the NAS once equipped with ADS-B. AOPA believes that this level of privacy is facilitated when the operator installs an anonymous mode capable ADS-B system, selects the anonymous mode function, does not utilize air traffic services, and has not filed a VFR or IFR flight plan. AOPA petitioned for an exemption from § 91.227(d)(8) and (11) to allow a general aviation pilot to utilize the anonymous mode while on a VFR flight plan.

AOPA explains that privacy is a leading concern for many general aviation pilots deciding whether to equip with ADS-B Out because new technologies operated by third parties allow the tracking of ADS-B Out equipped aircraft. In addition, AOPA explains that aircraft owners who desire privacy also wish to file VFR flight plans in order to be afforded search and rescue services. Based on AOPA's interpretation of the regulations, AOPA believes that a pilot must choose between operating in the anonymity mode and operating on a VFR flight plan. AOPA explains how granting its petition would be in the public interest and would improve safety by allowing VFR operators to maintain privacy while continuing to obtain the search and rescue services that come with filing a VFR flight plan.

The petitioner suggests that this petition would not pose any adverse effects to the NAS and that the required ADS-B information is still being transmitted. The information would still be able to provide other aircraft with location information and thus does not degrade the ADS-B environment. The only change would be that the aircraft's identification would be anonymous. AOPA explains that, by not having the ability to file a VFR flight plan and use the anonymous feature, some pilots may opt to choose anonymity over use of VFR flight plans. In doing so, AOPA states that it would actually present a decrease in aviation safety by making it harder for search and rescue to locate an overdue aircraft. These efforts would mirror search and rescue techniques currently used for transponder operations.

Petitioner recommends that this exemption be limited to non-rule airspace and in doing so, the FAA will be providing an equivalent level of safety given that the aircraft is not required to be ADS-B equipped. It could also incentivize the equipage of those aircraft that operate in non-rule airspace and improve safety through the utilization of VFR flight plans.

AOPA suggests that this petition is in the public interest because it allows pilots to fly using anonymous mode while on a VFR flight plan without being subject to an unwarranted and unbeneficial restriction. AOPA also explains that, as currently written, the rule reduces the appeal of these systems by limiting the consumer's ability to maximize their purchase and could negatively impact equipage and the intent of the ADS-B rule. The petitioner states that granting the requested relief will increase ADS-B Out usage and improve overall safety while aiding mid-air collision avoidance.

Furthermore, the petitioner explains that pilots may determine that their privacy concerns actually outweigh the advantage of equipping. This exemption petition is in the public's interest in that it would allow anonymity for VFR operators without degrading safety. AOPA believes it is a desirable solution for the general aviation community.

The FAA's analysis is as follows:

The FAA has determined that good cause exists for waiving the requirement for Federal Register publication because, upon review of the relief requested, the FAA finds that an exemption is not necessary.

The petitioner seeks relief from § 91.227(d)(8) and (11) to enable operators of aircraft equipped with 978 MHz UAT ADS-B to operate utilizing anonymous mode when the pilot has filed a VFR flight plan, the pilot has not requested ATC services, and the operation is outside of rule airspace. However, upon review of the requirements contained in § 91.227(d)(8) and (11), the FAA finds that these requirements do not preclude an operator from using the anonymity feature and filing a VFR flight plan. Because the relief requested by the petitioner is already allowed under the regulations, there is no need to grant the petitioner relief from § 91.227(d)(8) and (11). Clarification on the FAA's determination is provided below.

Section 91.227(d)(8) of 14 CFR requires each aircraft to broadcast “[a]n indication of the aircraft's call sign that is submitted on the flight plan, or the aircraft's registration number, except when the pilot has not filed a flight plan, has not requested ATC services, and is using a TSO-C154c self-assigned temporary 24-bit address.” Similarly, § 91.227(d)(11) requires each aircraft to broadcast “[a]n indication of the aircraft's assigned ICAO 24-bit address, except when the pilot has not filed a flight plan, has not requested ATC services, and is using a TSO-C154c self-assigned temporary 24-bit address.” These requirements allow an operator with TSO-C154c equipment to use an anonymity feature that temporarily and randomly assigns a 24-bit address for the aircraft, provided the pilot “has not filed a flight plan” and

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“has not requested ATC services.” At issue is whether these requirements preclude a pilot using the anonymity feature from filing a VFR flight plan, which provides a pilot with search and rescue protection.

A pilot conducting VFR operations may use the anonymity feature and file a VFR flight plan, provided that pilot does not request flight following. This interpretation is consistent with the disposition of comments in the final rule, the final rule preamble, and the intent of § 91.227(d)(8).

In the notice of proposed rulemaking (NPRM), when the FAA proposed to require each aircraft to broadcast an indication of the aircraft’s call sign on its flight plan, or registration number, and an indication of the aircraft’s assigned ICAO 24-bit address, the FAA did not include an exception.¹ As stated in the final rule preamble, the FAA received many comments regarding privacy and most of these comments specifically addressed VFR operations. Commenters argued in favor of retaining the anonymous mode for VFR operations because aircraft identification is only required for ATC purposes. The majority of the commenters asked the FAA to treat VFR operations under the ADS-B rule similar to VFR operations under the transponder rule (§ 91.215).² As explained in the final rule preamble, many general aviation (GA) aircraft are equipped with Mode C transponders, which have the capability to squawk 1200 and meet the requirements of § 91.215, without specifically identifying the aircraft.³

In response to the comments, the FAA adopted an exception in § 91.227(d)(8) and (11) allowing certain persons to use the anonymity feature, provided (1) they have not filed a flight plan; (2) have not requested ATC services; and (3) are using a TSO-C154c self-assigned temporary 24-bit address. As evident from the final rule preamble, this exception was intended to apply to VFR operations not using ATC services (i.e., flight following).⁴ The

¹ *Automatic Dependent Surveillance—Broadcast (ADS-B) Out Performance Requirements to Support Air Traffic Control (ATC) Service*, NPRM, 72 FR 56947, 56954 and 56972 (Oct. 5, 2007). The FAA originally proposed to include the requirements of § 91.227(d) in an appendix to 14 CFR part 91. *Id.* at 56953-54.

² Section 91.215 requires an aircraft operating in airspace designated in § 91.215 to have ATC transponder equipment installed that meets the performance requirements of TSO-C74b, TSO-C74c, or TSO-C112.

³ In addition to discussing the comments in favor of allowing an anonymous mode for VFR operations, the final rule preamble noted an ARC recommendation to use the anonymity feature of UAT and develop an equivalent anonymity feature for 1090 MHz ES that would apply to *VFR operations not using ATC services*. (emphasis added). *ADS-B Out Performance Requirements to Support ATC Service*, Final Rule, 75 FR 30160, 30182 (May 28, 2010).

⁴ In the final rule preamble, the FAA stated that the rule does not prohibit use of the anonymity feature and “UAT-equipped aircraft conducting VFR operations that have not filed a flight plan and are not requesting ATC services may use this feature.” 75 FR at 30183. Because this sentence merely restates the regulation, the lack of differentiation between “IFR flight plan” and “VFR flight plan” in this sentence is not determinative of the FAA’s intent.

FAA notes that a pilot conducting a VFR operation may file a VFR flight plan to obtain search and rescue protection.⁵ When a pilot files a VFR flight plan, he or she does not receive ATC services unless he or she requests flight following. Therefore, a pilot conducting a VFR operation may file a VFR flight plan without requesting ATC services. In light of what the commenters were seeking, it appears that the FAA intended to allow persons conducting VFR operations, including those on a VFR flight plan, to use the anonymity mode so long as they did not request ATC services (i.e., flight following). This intent is supported by the FAA's explanation that "operators using the anonymity feature will not be eligible to receive ATC services and will not be able to benefit from *enhanced* ADS-B search and rescue capabilities."⁶

A pilot receives standard search and rescue protection when he or she files a VFR flight plan. The FAA's use of the term "enhanced" when referring to search and rescue capabilities in the preamble means the pilot would benefit from improved search and rescue protection if he or she were not using the anonymity mode. This is evidence of the FAA's intent *not* to preclude VFR pilots using the anonymity feature from receiving *any* search and rescue protection. If the FAA intended to preclude a VFR pilot using the anonymity feature from filing a VFR flight plan, which would preclude the pilot from receiving *any* search and rescue services, the FAA would have stated that operators using the anonymity feature will not be able to benefit from *any* search and rescue capabilities.

In addition, as evident from the disposition of comments in the final rule, the exception in § 91.227(d)(8) and (11) was intended to treat VFR operations under the ADS-B rule similar to the way VFR operations are treated under the transponder rule. All transponder-equipped aircraft on VFR flights are directed by ATC to squawk 1200, which is the standard transponder code that identifies aircraft operating under VFR.⁷ When a pilot operating under a VFR flight plan requests flight following,⁸ however, ATC directs that pilot to squawk a discrete transponder code. Just as a pilot may file a VFR flight plan and still squawk 1200, the FAA intended to allow a pilot to file a VFR flight plan and still use the anonymity feature on a UAT-equipped aircraft, provided the pilot has not requested ATC services. In order to

⁵ "A filed flight plan is the most timely and effective indicator that an aircraft is overdue. Flight plan information is invaluable to [search and rescue] SAR forces for search planning and executing search efforts." See Aeronautical Information Manual (AIM), Chapter 6, Section 2, 6-2-6. Search and Rescue (2017).

⁶ 75 FR at 30183.

⁷ All transponder-equipped aircraft on Instrument Flight Rules (IFR) flights are directed by ATC to "squawk" a unique four-digit code, commonly referred to as a "Mode 3/A transponder code." All transponder equipped aircraft on Visual Flight Rules (VFR) flights are directed by ATC to squawk 1200. The assigned Mode 3/A transponder code is used by ATC to identify each aircraft operating under IFR, and the 1200 transponder code identifies aircraft operating under VFR.

⁸ Advisory services such as flight following are furnished to VFR traffic as a courtesy when ATC workloads permit.

provide ATC services, such as flight following or separation services, ATC must be able to identify the aircraft.

The FAA's interpretation of § 91.227(d)(8) and (11) is further supported by the intent of paragraph (d)(8). As evident from the NPRM and final rule preambles, the requirement in § 91.227(d)(8) was intended to correlate flight plan information with the data that ATC views on the radar display and facilitate ATC communication with the aircraft.⁹ The FAA recognizes that this statement uses the term "flight plan" without differentiating between an IFR flight plan and a VFR flight plan. However, unless the pilot requests flight following, an aircraft on a VFR flight plan does not receive ATC services, which means there are no ATC communications to facilitate. Therefore, with the exception of aircraft receiving flight following, the FAA did not intend to require an aircraft on a VFR flight plan to transmit the call sign on its flight plan, or its registration number. It therefore would not make sense to interpret the exception to the requirement as prohibiting aircraft on VFR flight plans from using the anonymity feature.

For the reasons stated above, the FAA interprets the exceptions in § 91.227(d)(8) and (11) as applying to pilots who: (1) have not filed an *IFR* flight plan; (2) have not requested ATC services, such as separation services or VFR flight following; and (3) are using a TSO-C154c self-assigned temporary 24-bit address. As a result, VFR pilots using the anonymity feature may file a VFR flight plan, which enables search and rescue capabilities, provided they do not request flight following. The FAA may consider revising § 91.227(d)(8) and (11) in the future to eliminate any confusion.

The FAA's Decision:

In consideration of the foregoing, I find that a grant of exemption is unnecessary because the relief sought by the petitioner is already allowed under the regulations. Therefore, pursuant to the authority contained in 49 U.S.C. §§ 106(f), 40113, and 44701 delegated to me by the Administrator, the petition of Aircraft Owners and Pilots Association (AOPA) for an exemption from 14 CFR § 91.227 (d)(8) and (11) is hereby denied.

Issued in Washington, D.C., on July 18, 2019.

/s/

Maurice Hoffman
Director, Airspace Services

⁹ See *NPRM*, 72 FR at 56954 and *Final Rule*, 75 FR at 30174.

