



PUBLIC NOTICE

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WIRELESS TELECOMMUNICATIONS BUREAU PROVIDES GUIDANCE TO OPERATORS OF AUTONOMOUS VESSELS IN U.S. WATERS

In light of the proliferation in recent years of Autonomous Vessels (AVs),¹ the Wireless Telecommunications Bureau (Bureau) provides guidance on how to obtain a Maritime Mobile Service Identity (MMSI), a nine-digit number that identifies radio stations in the maritime mobile service,² and reminds AV operators of certain legal obligations under part 80 of the Commission's rules.³

The United States Coast Guard (USCG) recently issued Marine Safety Information Bulletins (MSIBs) on AVs that have been operating on U.S. waters, setting forth precautions that mariners, vessel owners, and operators should take while planning an outing or transit.⁴ These precautions include maintaining an awareness of common identifiers of AVs, which—in addition to visual identifiers to aid in the sighting of AV—could include the use of Automatic Identification System (AIS) technology.⁵

AIS is “[a] maritime navigation safety communications system standardized by the International Telecommunication Union . . . and adopted by the International Maritime Organization (IMO) that provides vessel information, including the vessel's identity, type, position, course, speed, navigational status and other safety-related information automatically to appropriately equipped shore stations, other ships, and aircraft; receives automatically such information from similarly fitted ships; monitors and

¹ It is estimated that there were more than 1,100 AVs operating worldwide in 2022. Allied Market Research, *Autonomous Shipping Revolution: Transforming the Global Trade Industry*, <https://www.alliedmarketresearch.com/resource-center/trends-and-outlook/automotive-and-transportation/autonomous-shipping-revolution-transforming-global-trade> (last visited July 2, 2025).

² 47 CFR § 80.5.

³ 47 CFR §§ 80.1–80.1252.

⁴ USCG, *Marine Safety Information Bulletin 10-25: Autonomous Unmanned Vessel or Craft Operations* (Apr. 7, 2025), <https://www.joeceel.com/GMDSSTaskForce/MMSI%20Working%20Group/MMSI%20Reference%20documents/MMSI%2010-25%20Autonomous%20Vessel%20Operations.pdf>; USCG, *Marine Safety Information Bulletin: Autonomous Unmanned Watercraft on the Great Lakes* (Aug. 23, 2024), https://www.atlanticarea.uscg.mil/Portals/7/Ninth%20District/Documents/MSIBs/MSIB_003-24.pdf?ver=5bmZaTIHUFcyZi1Gc_qGbw%3D%3D.

⁵ USCG, *Marine Safety Information Bulletin 10-25: Autonomous Unmanned Vessel or Craft Operations* (Apr. 7, 2025), <https://www.joeceel.com/GMDSSTaskForce/MMSI%20Working%20Group/MMSI%20Reference%20documents/MMSI%2010-25%20Autonomous%20Vessel%20Operations.pdf>; USCG, *Marine Safety Information Bulletin: Autonomous Unmanned Watercraft on the Great Lakes* (Aug. 23, 2024), https://www.atlanticarea.uscg.mil/Portals/7/Ninth%20District/Documents/MSIBs/MSIB_003-24.pdf?ver=5bmZaTIHUFcyZi1Gc_qGbw%3D%3D.

tracks ships; and exchanges data with shore-based facilities.”⁶ AIS allows vessels to use radio signals to see each other on electronic displays, especially when visibility conditions may not be ideal.

Please be advised that when equipping a voluntary⁷ or compulsory⁸ vessel with AIS, an MMSI is required.⁹ For visibility and search and rescue purposes, voluntary vessels sailing domestically with AIS installed may contact any of the following FCC-designated MMSI providers to obtain the requisite MMSI number:

- BoatUS (<https://www.boatus.com/>)¹⁰
- Shine Micro, Inc. (<https://www.shinemicro.com>)¹¹
- United States Power Squadrons, Inc. (https://www.usps.org/php/mmsi_new/)¹²

Additionally, voluntary vessels sailing internationally and all compulsory vessels must file an application with the FCC for a ship station license, which includes the issuance of an MMSI number.¹³ It should also be noted that an MMSI issued by the FCC is required when traveling internationally regardless of whether the vessel is classified as voluntary or compulsory. For more information, visit FCC’s webpage on MMSIs: <https://www.fcc.gov/wireless/bureau-divisions/mobility-division/maritime-mobile/ship-radio-stations/maritime-mobile>.

Importantly, AVs are subject to the same FCC radio safety equipment carriage requirements as other vessels. Vessel operators are responsible for understanding and complying with these rules. Recognizing that there are various levels of autonomy for AVs in which they may be crewed, remotely

⁶ 47 CFR § 80.5.

⁷ A voluntary vessel is a ship that is not required by treaty or statute to be equipped with radiotelecommunication equipment. 47 CFR § 80.5. Such U.S. vessels are instead FCC licensed by rule, allowing a mariner to operate maritime radio equipment without obtaining a ship station license from the FCC. See 47 CFR § 80.13(c) (“A ship station is licensed by rule . . . if the ship is not subject to the radio equipment carriage requirements of any statute, treaty or agreement to which the United States is [a] signatory, the ship station does not travel to foreign ports, and the ship station does not make international communications.”). For example, a voluntary vessel can be operated for personal use and with a marine VHF radio or other maritime radio safety equipment (e.g., radar or AIS) for increased safety and communications on U.S. waters. Subpart X of part 80 applies to voluntary vessels. See §§ 80.1151–80.1201.

⁸ A compulsory vessel is any ship that is required to be equipped with radiotelecommunication equipment to comply with the radio or radio-navigation provisions of a treaty, statute, or Subpart T (Radiotelephone Installation Required for Vessels on the Great Lakes) of part 80. 47 CFR § 80.5. U.S. compulsory vessels are required to obtain a ship station license from the FCC. See 47 CFR § 80.13(a).

⁹ See *Wireless Telecommunications Bureau Reminds Mariners Regarding Correct Use of Maritime Mobile Service Identity (MMSI) Numbers*, DA-12-1989, Public Notice, 27 FCC Rcd 15260 (WTB 2012) (“Vessel owners must obtain an MMSI prior to using a . . . shipborne universal AIS transponder . . .”).

¹⁰ *Commission Announces Revision of Procedures for Assigning Maritime Mobile Service Identities*, DA 01-115, Public Notice, 16 FCC Rcd 918 (WTB 2001) (notifying the public that in November 2000, the Commission and USCG entered into a Memorandum of Agreement with BoatUS to issue MMSIs to exempt vessel operators).

¹¹ *Commission Announces Agreements with Shine Micro, Inc., and United States Power Squadrons, Inc., and Termination of Agreement with Maritel, Inc., Regarding Assignment of Maritime Mobile Service Identities (MMSIs)*, DA 07-1732, Public Notice, 22 FCC Rcd 7329 (WTB 2007) (notifying the public that in December 2006, the Commission and USCG entered into a Memorandum of Agreement with Shine Micro, Inc. to issue MMSIs to exempt vessel operators).

¹² *Id.* (notifying the public that in April 2007, the Commission and USCG entered into a Memorandum of Agreement with United States Power Squadrons, Inc. to issue MMSIs to exempt vessel operators).

¹³ See WTB, *supra* note 9, at 1 (noting that “[h]ow a vessel owner obtains an MMSI depends on whether the ship station requires a license from the Federal Communications Commission (FCC) or instead licensed by rule”).

operated with or without crew, or fully autonomous with or without crew,¹⁴ the Bureau reminds vessel operators that depending on the size or weight of the AV, number of passengers on board, and/or the AV's intended route, the following may apply: Subpart S (Compulsory Radiotelephone Installations for Small Passenger Boats),¹⁵ Subpart T (Radiotelephone Installations Required for Vessels on the Great Lakes),¹⁶ Subpart U (Radiotelephone Installations Required by the Bridge-to-Bridge Act),¹⁷ and/or Subpart W (Global Maritime Distress and Safety System (GMDSS)).¹⁸ If an AV operator believes mandatory carriage of radio safety equipment may be unreasonable or unnecessary, it may request an exemption from carriage requirements by submitting FCC Form 605¹⁹ and Schedule G²⁰ through the Commission's Universal Licensing System.²¹ Such requests will be considered on a case-by-case basis, taking into account the routes and equipment carried on the vessel, and the safety of not only the AV but also other vessels in U.S. waters.

For further information, contact Kathleen Curameng of the Mobility Division, Wireless Telecommunications Bureau, at (202) 418-2791 or Kathleen.Curameng@fcc.gov.

¹⁴ IMO has identified and proposed four degrees of ship autonomy for AVs, ranging from automated operations with crew on board ready to take control, to a fully autonomous ship (in which the operating system independently decides and determines actions) without crew on board. U.S. Government Accountability Office, *Coast Guard: Autonomous Ships and Efforts to Regulate Them* (Aug. 8, 2024), <https://www.gao.gov/assets/gao-24-107059.pdf>.

¹⁵ 47 CFR §§ 80.901–80.935.

¹⁶ 47 CFR §§ 80.951–80.971.

¹⁷ 47 CFR §§ 80.1001–80.1023.

¹⁸ 47 CFR §§ 80.1065–80.1135.

¹⁹ FCC, *FCC Form 605: Quick-Form Application for Authorization in the Ship, Aircraft, Amateur, Restricted and Commercial Operator, and General Mobile Radio Services* (Jan. 10, 2024), <https://www.fcc.gov/wireless/support/knowledge-base/fcc-form-605>.

²⁰ FCC, *FCC Form 605, Schedule G: Exemption from Ship Station Requirements (Part 80)*, <https://www.fcc.gov/files/fcc-form-605-schedule-g-dec2023> (last visited July 2, 2025).

²¹ FCC, *Universal Licensing System* (Aug 26, 2021), <https://www.fcc.gov/wireless/universal-licensing-system>.