



PUBLIC NOTICE

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FCC ENFORCEMENT ADVISORY

COMPLIANCE WITH SATELLITE COMMUNICATIONS LICENSING REQUIREMENTS IS MANDATORY AND FAILURE TO COMPLY CAN RESULT IN ENFORCEMENT ACTION

The Enforcement Bureau, International Bureau, Office of Engineering and Technology, and Wireless Telecommunications Bureau of the Federal Communications Commission (FCC or Commission) issue this Advisory to remind satellite system operators of the requirement to obtain FCC authorization for space station and earth station operations, and to caution satellite operators and their launch service providers concerning proceeding with launch arrangements either following a license denial or prior to FCC authorization of radio operations.

Overview:

The Commission has previously issued guidance on obtaining licenses for small satellites.¹

Compliance with requirements for licensing of satellite communications is not optional. Failure to comply with FCC requirements can and will result in enforcement action.

Satellite operations, including the launch activities necessary to establish a satellite in orbit, are complex technical undertakings in which multiple parties may play a role. The participants in those activities have a shared responsibility to ensure that the activity is consistent with regulatory requirements and must ensure, in defining roles and responsibilities related to the activity, that such requirements will be adequately addressed.

This Enforcement Advisory is intended to remind participants of the FCC regulatory requirements applicable to satellite operations, and to caution participants in launch activities about actions contrary to these requirements.

Why do I need a license? The International Telecommunication Union (ITU) Radio Regulations are treaty provisions binding on the United States, and require that no transmitting station may be established or operated by a private person or by any enterprise without a license by or on behalf of the government

¹ See *Guidance on Obtaining Licenses for Small Satellites*, Public Notice, DA 13-445, 28 FCC Rcd 2555 (Mar. 15, 2013), available at <https://www.fcc.gov/document/guidance-obtaining-licenses-small-satellites>.

of the country to which the station in question is subject.² The Communications Act of 1934, as amended, requires the issuance of a license for communications to and from the United States or from any U.S. satellite,³ and provides the FCC with authority to take actions to implement the ITU Radio Regulations.⁴ FCC licensing is also an important aspect of ensuring that the United States satisfies the treaty obligation for authorization and continuing supervision of the space activities of non-governmental entities.⁵ Operations without a license are subject to the full range of FCC enforcement actions.

What should I do if I don't have a license, but I am facing a deadline for participating in a launch?

Satellite operators that have been denied an FCC license, or are seeking but have not been granted an FCC license, are cautioned not to provide the satellite to a launch service provider⁶ for integration into a satellite deployment device or launch vehicle if doing so commits the operator in any irreversible manner, either practically or legally, to launch of the satellite. The satellite operator must maintain sufficient control over the satellite, through appropriate contractual provisions, to ensure a legal right and a related operational capability to remove the satellite from the launch vehicle. The existence of a pending application does not guarantee that a satellite will ultimately be authorized by the Commission, and does not justify proceeding beyond a point where the satellite operator no longer has such a right, or where such operational capabilities are no longer available.

U.S. satellite operators should also be aware that, if operations using earth stations outside the United States are contemplated, regulatory authorities in other countries may decline to issue an earth station authorization until a U.S. space station authorization is issued. A number of countries also require that ITU coordination and/or notification procedures have begun or have been completed before issuing an earth station authorization.

Can I launch my satellite without an authorization if I agree to disable all onboard radio transmitters until my authorization is granted? Even if radio transmitters can be disabled prior to launch, launching without those transmitters presents other significant concerns. Radio transmitters play an important role in identifying, cataloging, and controlling a satellite. A satellite launched without the ability to use on-board radio systems, which typically are the primary means of monitoring and controlling the spacecraft's operations, may then pose an unacceptable hazard to other satellites. As an example, the operator may not be able to assist in the event of a potential conjunction with another satellite, because tracking information that would otherwise be derived from radio operations is unavailable. Resolution of licensing issues before launch ensures that necessary communications can be performed.

What if my satellite is authorized by a Federal agency other than the FCC? A U.S. satellite may require more than one U.S. authorization, depending on the proposed operations and launch scenario. For example, in addition to an FCC license, the operator may also need to acquire a remote sensing license or

² International Telecommunication Union (ITU) Radio Regulations, No. 18.1 (2015).

³ 47 USC § 301 (d), (f).

⁴ 47 USC § 303(r).

⁵ Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies art. 6, adopted Oct. 10, 1967, 18 U.S.T. 2410, 610 U.N.T.S. 205.

⁶ As used in this Enforcement Advisory, "launch service provider" refers to launch providers, rideshare coordinators, satellite integrators, or other entities that may be involved in the process of preparing the satellite for launch.

export license. Authorization under these other legal requirements does not provide or guarantee approval of an FCC license. In addition, funding of a satellite by a Federal agency is not by itself sufficient to justify tendering a satellite for launch because the Federal agency presumes the party will obtain all necessary approvals.

What if my satellite is authorized by a foreign administration? Satellites authorized by an administration other than the United States do not require any FCC approval if earth station operations are exclusively outside the United States. If earth station operations in the United States are contemplated, the applicant for a U.S. earth station should be prepared to identify the administration authorizing the space station operations under Article 18.1 of the ITU Radio Regulations, and the country that has registered or intends to register the satellite pursuant to the U.N. Outer Space Treaty.

What are the risks for launch service providers? Launch service providers should be aware that a satellite integrated into a launch vehicle or deployment device without a current FCC authorization may need to be removed from that vehicle or deployment device if the satellite operator's application for an FCC authorization is not acted upon favorably, or for various reasons cannot be granted within a time frame consistent with the launch schedule. Removal of an unauthorized satellite or its deployment device from a launch vehicle may cause disruptions to launch operations and has the potential to impact other packages on the launch vehicle, whether primary or secondary. Satellite operators and launch service providers should be aware of the risks of integrating an unauthorized satellite and, if they nonetheless choose to proceed with integration of the satellite, provide the legal and practical means for removing the satellite from the launch vehicle or deployment device through appropriate contractual and operational arrangements.

Launch service providers should exercise particular caution if a satellite operator indicates that it is relying on several possible alternative jurisdictions for radio-frequency approval, or is otherwise altering its mission to obviate the need for radio-frequency approval, particularly at late stages of launch preparations. While it is common for satellite operators to consider alternative regulatory jurisdictions at early stages of a project, a search for an alternative regulatory home during later stages of launch preparations can be the result of significant underlying regulatory issues that may not be resolved favorably prior to the scheduled launch.

How can I confirm the status of an FCC authorization? Information on the status of current or pending FCC satellite authorizations can be found in various FCC databases depending on the type of authorization. Authorizations under Part 25 of the Commission's rules can be found in the International Bureau Filing System (IBFS).⁷ The Office of Engineering and Technology (OET) maintains a list of current experimental systems authorized under Part 5 of the Commission's rules, including experimental satellites, in the Experimental Licensing System (ELS). Information on amateur-satellite authorizations operating under Part 97 of the Commission's rules can be found in the Universal Licensing System (ULS).⁸ See below for links to each of these databases.

⁷ Although the IBFS includes the most current information on authorizations, the Commission also maintains the Approved Space Station List as a convenient unofficial list of authorized Part 25 satellites. See <https://www.fcc.gov/approved-space-station-list>.

⁸ Amateur-satellites must be "documented" before they are authorized to operate. 47 CFR § 97.5(a)(3). To assist in determining which space stations are considered "documented" under these rules, staff have begun to provide an e-mail in the ULS file of the satellite's amateur control operator once the satellite is considered documented. This occurs upon submission of required and acceptable information, including documents suitable for submission to the

- IBFS: <https://licensing.fcc.gov/myibfs/>
- ELS: <https://apps.fcc.gov/oetcf/els/index.cfm>
- ULS: <http://wireless.fcc.gov/uls/index.htm?job=home>

What if I have additional questions? For additional information regarding this Advisory, contact: Neal McNeil, Enforcement Bureau (Neal.McNeil@fcc.gov, telephone (202) 418-2408); Karl Kensinger, International Bureau (Karl.Kensinger@fcc.gov, telephone (202) 418-0773); or Walter Johnston, Office of Engineering and Technology (Walter.Johnston@fcc.gov, (202) 418-0807). For assistance regarding the use of FCC databases, including questions regarding the status of a license application, contact information is available on the respective websites listed above.

Issued by the Chiefs, Enforcement Bureau, International Bureau, Office of Engineering and Technology, and Wireless Telecommunications Bureau

ITU. For a documented satellite, the control operator's ULS file will also contain a mission description and orbital debris mitigation plan.