



**Federal Communications Commission  
Washington, DC 20554**

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**SMALL ENTITY COMPLIANCE GUIDE**

**Allocation of Spectrum for Non-Federal Space Launch Operations; Amendment of Part 2 of the Commission's Rules for Federal Earth Stations Communicating with Non-Federal Fixed Satellite Service Space Stations; and Federal Space Station Use of the 399.9-400.05 MHz Band**

**FCC 23-76**

**ET Docket No. 13-115 and RM-11341**

**Released September 22, 2023**

In accordance with Section 212 of the Small Business Regulatory Enforcement Fairness Act of 1996, this Small Entity Compliance Guide (Guide) is intended to help small entities—small businesses, small organizations (non-profits), and small governmental jurisdictions—comply with the rules adopted in the above-referenced Federal Communications Commission (FCC or Commission) rulemaking dockets. This Guide is not intended to replace or supersede these rules, but to facilitate compliance with the rules. Although we have attempted to cover all parts of the rules that might be especially important to small entities, the coverage may not be exhaustive. This Guide cannot anticipate all situations in which the rules apply. Furthermore, the Commission retains the discretion to adopt case-by-case approaches, where appropriate, that may differ from this Guide. Any decision regarding a particular small entity will be based on the statute and any relevant rules.

In any civil or administrative action against a small entity for a violation of rules, the content of the Guide may be considered as evidence of the reasonableness or appropriateness of proposed fines, penalties or damages. Interested parties are free to file comments regarding this Guide in the above referenced docket and the appropriateness of its application to a particular situation. The Commission will then consider whether the recommendations or interpretations in the Guide are appropriate in that situation. The Commission may decide to revise this Guide without public notice to reflect changes in its approach to implementing a rule, or it may clarify or update the text of the Guide. Please direct comments and recommendations, or requests for further assistance, to the FCC's Consumer Center:

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## I. OBJECTIVES OF THE PROCEEDING

In the *Second Report and Order and Second Further Notice of Proposed Rulemaking* in FCC 23-76, ET Docket Nos. 13-115 and RM-11341 adopted in September 2023<sup>1</sup>, the Commission modified spectrum allocations and adopted a licensing framework under a new rule part (part 26)<sup>2</sup> that sets forth the conditions under which spectrum is made available and licensed for the provisioning of Space Launch Services.

The adoption of spectrum allocations and the accompanying licensing framework provide greater regulatory certainty and improved efficiency for commercial space launch operations. Because the frequency bands typically used to support commercial space launches previously did not have provisions in the Table of Allocations for non-Federal access to the allocations, the Commission has been unable to license commercial entities to use these bands on an interference-protected basis during space launches.<sup>3</sup> Instead, the Commission grants space launch providers special temporary authority (STA) under the part 5 experimental licensing rules to use these frequencies.<sup>4</sup> These STAs are issued with the condition that any future launches by the grantees would be considered on a case-by-case basis and that there is no expectation that experimental STAs for future launches would be approved. The actions the Commission took in this proceeding are designed to provide a more straightforward and predictable authorization process for the growing United States commercial space launch industry. This, in turn, will promote continued innovation and investment in this important sector of the economy.

Specifically, the Commission adopted a new secondary non-Federal Space Operation (Earth-to-space) allocation in the 2025-2110 MHz band. This allocation is limited to space launch telecommand transmissions and will require commercial space launch providers to coordinate their operations with both Federal and non-Federal users. To better support space launch telemetry operations in the 2200-2290 MHz band, it also added a secondary non-Federal Mobile allocation and removed an existing restriction that had limited non-Federal space operations to four segments of the band. While the Commission did not modify the non-Federal status of several other frequency bands it had identified in the rulemaking proceeding, it did amend the allocation for the 399.9-400.05 MHz band to permit the deployment of Federal space stations.

The licensing process that the Commission adopted furthers its twin objectives of encouraging innovations and investments in the U.S. space commerce and ensuring a regulatory environment conducive to the establishment of a competitive U.S. commercial space launch sector while protecting Federal and other users in the bands.

Licensees will operate under a new standalone rule part for the new commercial space launch service, part 26. The Commission concluded that this approach provides greater clarity and ease of

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<sup>1</sup> *Allocation of Spectrum for Non-Federal Space Launch Operations; Amendment of Part 2 of the commission's rules for Federal Earth Stations Communicating with Non-Federal Fixed Satellite Service Space Stations; and Federal Space station Use of the 399.9-400.05 MHz Band*; ET Docket No. 13-115, Second Report and Order and Second Further Notice of Rulemaking, FCC 23-76 (adopted September 21, 2023) (*Second Report and Order*).

<sup>2</sup> 47 C.F.R. § 26.

<sup>3</sup> The National Telecommunications and Information Administration (NTIA) regulates the use of spectrum with Federal allocations and the Commission regulates use of spectrum with non-Federal allocations. The commercial space launch operators who are the subject of this proceeding are subject to licensing by the Commission as non-Federal entities. Generally, if there is no non-Federal radio service allocation for a frequency band, non-Federal stations may not operate in that band. However, the Commission may authorize non-Federal users to use Federal frequencies on a non-interference basis in bands with only Federal allocations after coordination with NTIA. See 47 CFR § 2.102(c).

<sup>4</sup> 47 U.S.C. §§ 301, 303, 307, 308, 309.

reference because launch operations do not clearly fall under any existing rule part. Moreover, the new rule part affords the Commission the flexibility to more easily accommodate rules relating to other types of space activities, to the extent that it adopts rules regarding such operations. For present purposes, however, the new rule part governs non-Federal space launch operations in the 2200-2290 MHz and 2025-2110 MHz bands.

## **II. COMPLIANCE REQUIREMENTS**

The new part 26 contains compliance requirements that specify submission and filing of applications, content of applications, registration of stations, frequency coordinator requirements, and authorized bandwidth, among other requirements. Licensees will only be provided access to the bands on a shared, non-exclusive basis under ten-year license terms. Applicant qualification will be assessed in accordance with FCC Form 601 and the Commission's rules. There will be no limit to the number of non-exclusive nationwide wireless licenses that may be granted for the spectrum allocated to commercial space launch services, and these licenses will serve as a prerequisite for registering launch sites and operational parameters, space launch vehicle stations, individual ground/earth stations, and itinerant stations needed to support a launch.

Additionally, the Commission's Wireless Telecommunications Bureau (WTB) may also adopt rules regarding the reporting of database information, which may include the requirement to report any license or secondary markets transactions, as appropriate, to refine the licensing process and accommodate post-licensing coordination. WTB will provide interested parties with notice and give appropriate compliance guidance if and when it takes such actions. It will also announce by public notice the initial filing date of the service and provide corresponding filing instructions. Specific rules and associated compliance requirements under part 26 are described below.

### **A. Scope of service and available frequencies. (47 CFR §§ 26.2, 26.3)**

Entities operating under these rules are limited to the provisioning of non-Federal space launch operations, which is defined as any activity that places a launch vehicle in a suborbital trajectory in Earth orbit, or otherwise in outer space, including pre-launch testing and recovery or reentry of the launch vehicle. This definition includes both expendable launch vehicles and reusable launch vehicles or a reentry vehicle used for launch, as those terms are defined, and any payload or human being from Earth.

Operations must be conducted in the 2200-2290 and 2025-2110 MHz bands, with the entire 2200-2290 MHz band available for all launch vehicle-to-ground communications associated with telemetry and tracking operations and the 2025-2110 MHz band available for all ground-to-launch vehicle telecommand uses necessary to support space launch operations. Telemetry, tracking, and command necessary to support space launch operations may include, but are not limited to: (1) pre-launch testing, such as pre-flight checks, ground testing, and telemetry; (2) vehicle tracking, including the transmission of parameter data from a launch vehicle to ground; (3) telecommand signals for propulsive maneuvering of a launch vehicle and separation of payload from launch vehicle; and (4) telecommand signals for propulsive maneuvering of a reentry vehicle for return and recovery.

### **B. Eligibility. (47 CFR § 26.101)**

To be eligible to hold a commercial space launch license, an applicant must qualify as one of the following: (1) a non-Federal Entity that conducts space launch operations; or (2) A parent of such entity or a subsidiary of such entity if either conducts space launch operations.

### **C. Submission and Filing of Applications. (47 CFR § 26.106(a)-(b))**

Applications for authorizations in the Space Launch Services must be filed in the Universal Licensing System (ULS) in accordance with part 1, subpart F of the Commission's rules. These same rules govern modifications or renewals of licenses, assignments or transfers of control of licenses or any rights thereunder, and waiver requests. Applicants should also refer to the Commission's rules regarding

the payment of statutory charges (subpart G of part 1) and the use of the FCC Registration Number (FRN) (*see* subpart W of Part 1). All applications and other filings must be filed electronically.

**D. Content of Applications; Registration of stations. (47 CFR § 26.108(a)-(c))**

Each application for authorization must be specific and complete with regard to the information requested by the application forms and associated public notice(s) that the Commission may release. Applicants must provide any additional information requested by the National Telecommunications and Information Administration (NTIA) or the frequency coordinator to complete the frequency coordination process set forth in subpart C of this part.

Once authorization is granted, Space Launch Services licensees must register in ULS each launch site and each corresponding station (fixed, base, itinerant, or mobile) that will be used in their space launch operations, as well as each individual launch that has completed the frequency coordination process required under the rules. Licensees must register applicable launch site and corresponding station data in ULS prior to submitting a coordination request to the space launch frequency coordinator.

**E. Frequency coordinator requirements. (47 CFR § 26.202(a)-(c))**

Once an application for a new Space Launch Services authorization is granted, each Space Launch Services licensee must submit, for each proposed launch operation, the applicable launch site and corresponding fixed, base, itinerant, and mobile stations and submit their technical and operational parameters to the space launch frequency coordinator to initiate post-grant frequency coordination. Any changes to the technical and operational parameters for a launch event that occurs after completion of post-grant frequency coordination also require coordination, and these changes shall be provided to initiate an updated post-frequency grant coordination. Space Launch Services licensees are required to provide all appropriate technical information, system requirements, and justification for requested station parameters when such information is necessary to identify and recommend the most appropriate frequency.

The 2025-2110 MHz band is subject to site-based local coordination. Under this process, the space launch frequency coordinator must initiate a post-grant coordination request for site-specific coordination with the local Broadcast Auxiliary Service (BAS) frequency coordinator, and must provide all necessary technical and operational parameters for each space launch licensee, to protect BAS, Cable Television Relay Service (CARS), and Local Television Transmission Service (LTTS) operations, as well as Federal entities that have completed coordination with the BAS frequency coordinator. However, the space launch frequency coordinator is not required to initiate a post-grant coordination request for site-specific coordination with the local BAS frequency coordinator if the Space Launch Services licensee provides a showing to the space launch frequency coordinator that (a) it has previously coordinated its proposed launch operations with the appropriate local BAS frequency coordinator and continues to comply with any conditions or agreements resulting from such prior coordination, or that it has entered into applicable coordination agreements with co-frequency entities; (b) it has ascertained that its proposal will not constrain, preclude, or interfere with incumbents in the band, including BAS, CARS and LTTS licensees and previously coordinated Federal operations; and (c) it has demonstrated in a technical showing that its proposed operation will not create more than 0.5 dB increase in the noise threshold of a receiver at a fixed or temporary fixed electronic news gathering (ENG) receive site.

Frequency coordinators are responsible for ensuring that their frequency recommendations do not conflict with the frequency recommendations of the local BAS frequency coordinator. Should a conflict arise, the affected coordinators are jointly responsible for taking action to resolve the conflict, up to and including notifying the Commission and NTIA that a launch request must be denied.

Both the 2025-2110 and 2200-2290 MHz bands are subject to per-launch coordination with NTIA to protect Federal users in the bands. Under this process, the space launch frequency coordinator will conduct a post-grant, per-launch coordination with NTIA by providing the Space Launch licensee's site and station registration with their corresponding technical and operational parameters to initiate the coordination process for each proposed launch.

#### **F. Technical Standards. (47 CFR §§ 26.301, 26.302, and 26.303)**

Space Launch Service licensees will normally be authorized to operate with bandwidths up to and including 5 megahertz, although the Commission may issue licenses that exceed 5 megahertz upon adequate justification from a license applicant explaining why the requested bandwidth is necessary for specific space launch operations, including an explanation of why the applicant's operations cannot be satisfied using a bandwidth of 5 megahertz or less.

Licensees must comply with additional technical requirements, including emission masks and power limits, as specified in subpart (D) of the part 26 rules. In conjunction with this emission mask requirements, the Commission incorporated by reference portions of the NTIA Manual of Regulations and Procedures for Federal Radio Frequency Management (NTIA Manual). Section 26.305 describes this document and how parties may access it.

Lastly, in conjunction with the Commission's amendment of the allocation for 399.9-400.05 MHz band to permit the deployment of Federal Space stations, Federal satellites that will operate in the band and the associated earth stations will be subject to coordination between NTIA and the Commission. During this coordination process any issues regarding coexistence between the Federal and non-Federal systems can be addressed. Non-federal licensees authorized to operate on these frequencies should be prepared to cooperate with the Commission during any future NTIA-Commission coordination activities.

### **III. RECORDKEEPING AND REPORTING REQUIREMENTS**

The Commission's actions in the *Second Report and Order* will require applications for licenses in the Space Launch Service to be filed electronically in the Universal Licensing System (ULS), which can be found at <http://wireless.fcc.gov/uls>. All modifications or renewals of licenses, assignments or transfers of control of licenses, and associated waiver requests will be granted only upon a filed application. Space Launch Service licensees have an obligation to update their license and corresponding site and station registration data as soon as the operational or technical details of a launch change to ensure proper coordination.

Additionally, the adopted rules require Space Launch Service licensees to conduct a post-grant, per-launch coordination directly with NTIA by providing NTIA with its site and station registration along with their corresponding technical and operational parameters. In addition, for the 2025-2110 MHz band, the licensee must submit technical and operational parameters to a space launch frequency coordinator to initiate post-grant frequency coordination. The space launch frequency coordinator will then coordinate with the local BAS frequency coordinator.

The adoption of a nationwide, non-exclusive licensing approach promotes greater efficiencies than the prior process of granting special temporary authority (STA) under the part 5 experimental licensing rules, as space launch operators will only have to file one license that will cover a host of launch sites that are shared by multiple co-frequency operators. Further, developers of launch vehicles and

spacecraft and those who conduct launches will benefit because they will be able to obtain licenses for spectrum to use during launches instead of being subject to the added burden and uncertainty of having to obtain an experimental license authorization for each launch.

#### **IV. IMPLEMENTATION DATE**

All rule changes in the *Second Report and Order* are effective as of September 4, 2024, except for amendatory instructions 10 through 13 (adding §§ 26.106, 26.108, 26.202, and 26.301, respectively), which are delayed indefinitely. The Commission will publish a document in the Federal Register announcing the effective date.

#### **V. INTERNET LINKS**

A copy of the *Second Report and Order* is available at:

<https://docs.fcc.gov/public/attachments/FCC-23-76A1.pdf>.

A copy of the Federal Register Summary of the *Second Report and Order and Second Further Notice of Proposed Rulemaking* is available at:

<https://www.govinfo.gov/content/pkg/FR-2024-08-05/pdf/2024-16638.pdf>.

The FCC maintains a web-based system that is available to applicants for licenses in the Space Launch Service. This system, called the Universal Licensing System (ULS) can be accessed at

<http://wireless.fcc.gov/uls>.