wiley

ALERT

FCC Releases Draft NPRM on ISAM Licensing Framework

January 31, 2024

Some acronyms are so perfect, so effortless in their articulation and application that they eventually come to embody the very thing for which they are meant to stand. Here, "radar" comes to mind, as does "laser." The jury's out on "ISAM," but not the activities to which it refers – in-space servicing, assembly, and manufacturing. These operations are on the cutting edge of space innovation, and the Federal Communications Commission (FCC or Commission) has recognized that they merit its attention.

On January 25, 2024, the Commission released a draft Notice of Proposed Rulemaking (Draft NPRM) proposing a licensing framework for space stations conducting in-space servicing, assembly, and manufacturing activities. The proposed framework is based on existing licensing processes and aims to support development of novel ISAM capabilities and tools for sustainable outer space use.

The Draft NPRM will be voted on at the Commission's February Open Meeting. If adopted, comments will be due 45 days after publication in the Federal Register and reply comments will be due 30 days thereafter.

Proposed Framework

In the Draft NPRM, the Commission seeks comment on its proposals to:

- **Define ISAM Space Stations in Section 25.103 of its Rules:** The Commission proposes to define "ISAM space station" as "a space station that has the primary purpose of conducting in-space servicing, assembly, and/or manufacturing activities

Authors

Jennifer D. Hindin
Partner
202.719.4975
jhindin@wiley.law

Henry Gola
Partner
202.719.7561
hgola@wiley.law

Stephanie Rigizadeh
Associate
202.719.4736
srigizadeh@wiley.law

Practice Areas

Space and Satellite

Telecom, Media & Technology

used on-orbit, on the surface of celestial bodies, and/or in transmit between these regimes. Servicing activities include but are not limited to in-space inspection, life-extension, repair, refueling, alteration, and orbital transfer of a client space object, including collection and removal of debris on orbit. Assembly activities involve the construction of space systems in space using pre-manufactured components. Manufacturing activities involve the transformation of raw or recycled materials into components, products, or infrastructure in space." The FCC asks further whether it should further define "primary purpose" or exclude any ISAM activities.

- **License ISAM Space Stations Through Its Existing Rules and Processes and Create a New Rule Section for ISAM Space Station Licensing:** The FCC invites comment on its proposal to require ISAM space station applicants to comply with regular part 25 licensing processes, or the streamlined processes for small satellites and small spacecraft in Sections 25.122 or 25.123 of its rules. Given the still-nascent nature of ISAM technologies, the Commission characterizes its proposed regulatory approach as "iterative, developing with the capabilities and needs of the industry."

The FCC further proposes to create a new Section 25.126, aptly titled "Applications for ISAM Space Stations," that would aggregate the requirements ISAM space station applicants must fulfill for authorization and enumerate exemptions from the Commission's typical processes that such applicants would be entitled to. Specifically, new Section 25.126 would require applicants to submit a comprehensive proposal on Form 312, Main Form, and Schedule S consistent with regular part 25 licensing. ISAM space station operators could continue to apply under the small satellite and small spacecraft streamlined processes provided they satisfy all the requirements of each respective process. In support of its proposal, the Commission states that "We believe creating a new rule section specific to ISAM space stations will make the process transparent for the industry, providing applicants … one rule section that details the application process and clearly indicates the other rule sections with which applicants must comply."

- **Exempt ISAM Space Station Applicants from the Commission's Processing Round Rules for NGSO-Like Space Stations and from the First-Come-First-Served Process for GSO-Like Space Stations and Defer Surety Bonds**: Recognizing that radiofrequency operations for ISAM space stations "seem more capable of spectrum sharing than other commercial space stations we have authorized under our part 25 rules and generally require shorter durations of intensive communications operations," the Commission proposes to exempt ISAM space stations from Section 25.157 processing round requirements for NGSO-like operations and from Section 25.158 first-come-first-served requirements for GSO-like operations. To be exempt, ISAM applicants must certify that their operations will be compatible with existing operations in the authorized frequency bands. Applicants must also submit a written narrative description demonstrating that spectrum sharing capabilities are technically possible without materially constraining future space station entrants.

Consistent with the treatment of small satellites and small spacecraft, the Draft NPRM also proposes a one-year grace period for the posting of surety bonds. Specifically, ISAM space station operators would not be required to post a bond for one year, starting 30 days after the license is granted. No bond

would be required if ISAM operators satisfy the Commission's milestone requirement within one year.

- **Assess Whether a Client Space Station Operator Must Obtain a License Modification for ISAM-Activities on a Case-by-Case Basis:** In the Draft NPRM, the Commission explains that whether a client space station operator will be required to file a license modification because of ISAM service will depend upon the details of that service. For example, while activities such as inspection or repair are unlikely to necessitate a modification, other activities, such as orbital transfer or mission extension, could alter the parameters of frequency operations, necessitating a license modification. To facilitate review of whether a client space station must seek a modification:
  - *US-Licensed Servicing and Client Operations* – The Commission proposes to require ISAM space station applicants to provide a list of FCC file numbers or call signs for all related space stations, including experimental applications and grants and other applications and grants under part 25. "Related applications and grants" would include not only space stations operated by the same operator, but could also include client space stations, space stations that have become debris the applicant seeks to remediate, and other space stations the applicant plans to interact with or collaborate with as part of its operations.
  - *International Servicing and Client Operations* – For client space stations licensed outside of the United States, both with or without U.S. market access grants, the Commission proposes to require the license applicant to provide the client's ITU (International Telecommunication Union) filings and United Nations registration information, as well as a discussion of regulatory requirements to which the client satellite and its operators are subject, and the status of any regulatory approvals required for the client satellite's participation in the servicing activity.
- **Notify the Radiocommunications Bureau at the ITU of a Commercial ISAM Mission**: Rather than coordinating with the ITU in accordance with ITU Radio Regulations, the Commission proposes to notify it of a commercial ISAM mission. The Commission explains: "We recognize the current ITU process poses challenges to ISAM operators, but the ITU Radio Regulations are a treaty by which the United States is bound, and the Commission cannot unilaterally modify what activities and frequencies need to be coordinated with the ITU through a rulemaking process."

- **Require ISAM Space Stations Operators, Including Operators of Space Stations Conducting Debris Remediation, to Comply with the Commission's Existing Orbital Debris Mitigation Rules:** In the Draft NPRM, the FCC tentatively concludes to retain the same orbital debris mitigation requirements for ISAM operators as for other space station operators. Accordingly, "We propose to include a requirement that applicants for ISAM space stations submit the orbital debris mitigation information under the rules of their chosen application process in our proposed new section 25.126.... We also propose to review any applications for ISAM space stations on a case-by-case basis, just as we do with other license applications, to ensure compliance with our orbital debris mitigation requirements." Further, the agency invites comment on whether it should impose additional requirements on ISAM space station applicants conducting debris remediation activities to mitigate potential risks.

- **Review ISAM Operators' Requests for Frequency Use on a Case-by-Case Basis:** The Commission tentatively concludes that various communication activities in support of ISAM can potentially operate within several existing service allocations, and therefore proposes to review ISAM operators' requests for frequency use on a case-by-case basis, consistent with its process for reviewing requests for frequency use for small satellites and small spacecraft. The Commission would do so with the understanding that the ISAM operations would be carried out on a non-exclusive, shared basis, and would not cause interference to incumbent operators. The FCC believes a case-by-case approach will facilitate innovation and open future pathways for ISAM-related frequency use. The agency further states that "we tentatively propose to maintain as much flexibility as possible for ISAM operators to gain authorization for their operations so long as this does not interfere with other radiocommunications and justifiably fits within service allocation definitions."

***

If you are interested in filing comments or have questions, please contact one of the attorneys listed on this alert or the Wiley attorney who routinely handles your FCC matter.