

FCC Proposes New Regulatory Framework for In-Space Servicing, Assembly and Manufacturing Operations

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In its latest effort to promote the commercial space industry, the Federal Communications Commission (FCC) released a [notice of proposed rulemaking](#) (NPRM) introducing a potential framework for licensing commercial in-space servicing, assembly and manufacturing (ISAM) operations. The NPRM aligns with the White House's [ISAM National Strategy](#) released in April 2022 and the FCC's [ISAM notice of inquiry](#) released in August 2022.

The FCC asks for comment on proposed rules that ISAM industry participants would have to follow to obtain licenses. To begin, the proposed rules define an "ISAM space station" as:

A space station which has the primary purpose of conducting in-space servicing, assembly, and/or manufacturing activities used on-orbit, on the surface of celestial bodies, and/or in transit between these regimes and which are supported by radiofrequency operations. 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 proposed rules do not define the "primary purpose" of conducting ISAM activities, but the FCC asks whether it should define the phrase.

The proposal provides two potential application authorization paths for ISAM space stations – the "regular part 25 licensing process" or the "streamlined processes for small satellites and small spacecraft."

Licensing modification for space stations affected by ISAM operations

The proposed rules would require ISAM space station applicants to submit comprehensive proposals, so that the FCC can evaluate the impact of the ISAM operations, such as changes in orbital locations or orbital extensions, on other space stations authorized by the US or other nations. The NPRM also proposes allowing ISAM space station operators to apply for US authorizations or grants of US market access.

If the proposed rules are approved, ISAM space station applicants must provide the following information in order to determine whether a license modification for any affected space station is necessary:

- For US-licensed operators, a list of FCC file numbers or call signs for any applications or FCC grants related to the proposed operations, including those of client space stations with which the applicant will seek to work or collaborate with in its operations.
- For operators licensed outside the US, a list of the International Telecommunications Union filings and United Nations registration information for any space stations not licensed or granted market access by the US that are related to the proposed operations, the regulatory requirements that the operator and partners are subject to, and the status of any required regulatory

approvals.

Exemption from processing rounds and ‘first-come-first-served’ process

In an effort to provide flexibility, the FCC proposes to exempt ISAM space station authorization applicants from the processing round rules for non-geostationary orbit space stations and the “first-come-first-served” process for geostationary orbit space stations, which is how most satellite licensing currently operates.

To obtain the exemption, the proposed new rules require ISAM space stations to submit a narrative description demonstrating spectrum-sharing capabilities, noting that operations will not materially constrain other ISAM operations in the requested frequency band. The proposed new rules also require the exemption applicants to certify that they will be compatible with and will not constrain operations of future space stations.

Surety bonds

ISAM operators would not be required to post surety bonds after licensing unless they do not meet the FCC’s milestone requirements within the first year after license grant.

ISAM spectrum needs addressed individually

Despite requests from the ISAM industry, the FCC did not propose a new spectrum allocation for ISAM operations. However, the FCC seeks comment on its proposal to “require frequency use authorization on a case-by-case basis,” which would ensure that operations would be nonexclusive and could not cause interference to incumbent operators.

Orbital debris regulation

The NPRM also proposes requiring ISAM space station operators to conduct debris remediation, comply with the current orbital debris mitigation rules applicable to non-ISAM operators and submit orbital debris mitigation plans on a case-by-case basis. However, the FCC also asks whether ISAM operators should be required to undertake additional debris remediation to further minimize the risk of harm.

Comments and reply comments for the NPRM will be due 45 and 75 days, respectively, after publication in the Federal Register. FCC Space Bureau staff is interested in hearing from any company that plans to engage in ISAM operations, and we encourage any such company to contact one of the Cooley lawyers listed below to determine how best to communicate its message to the FCC.

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