

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matter of	)	
	)	
Space Innovation;	)	IB Docket No. 22-271
	)	
Facilitating Capabilities for In-space	)	IB Docket No. 22-272
Servicing, Assembly, and Manufacturing	)	

**COMMENTS OF THE  
NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION**

The National Telecommunications and Information Administration (NTIA)<sup>1</sup> respectfully submits these comments on behalf of the Executive Branch in response to the Notice of Inquiry (NOI) in the above-captioned proceeding regarding in-space servicing, assembly, and manufacturing (ISAM) operations.<sup>2</sup> ISAM capabilities are anticipated to be an important part of the burgeoning space economy, and NTIA appreciates the Commission’s efforts to support the growth of these services. As explained below, the Executive Branch has been and is currently crafting policies designed to address a variety of commercial space activities, including ISAM. And, of course, a variety of federal agencies have critical operations on the ground and in space

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<sup>1</sup> NTIA is the President’s principal adviser on telecommunications policy. 47 U.S.C. § 902 (b)(2)(D). NTIA also is the Executive Branch agency principally responsible for the development of communications policies pertaining to the Nation’s economic and technological advancement and to the regulation of the communications industry, for the coordination of the communications activities of the Executive Branch, and for the effective presentation of the views of the Executive Branch to the Commission. *See* 47 U.S.C. § 902 (b)(2). In addition to the spectrum issues addressed here, the scope of NTIA’s concerns with respect to ISAM and the space economy potentially include promoting competition and market access and improving space situational awareness and supply chain resiliency. In formulating these comments, NTIA incorporated input from the Interdepartment Radio Advisory Committee (IRAC) and other Executive Branch entities.

<sup>2</sup> *Space Innovation; Facilitating Capabilities for In-space Servicing, Assembly, and Manufacturing*, IB Docket Nos. 22-271, 22-272, Notice of Inquiry, 87 FR 56365 (Aug 8, 2022) (NOI).

that must be protected – even as they also take advantage of commercial space activities. NTIA is working with colleagues in those agencies and anticipates the possibility of additional filings addressing these concerns.

## I.

The Biden Administration is undertaking a comprehensive review of existing policies and the development of additional policies designed to promote novel commercial space activities. For example, in its *In-Space Servicing, Assembly, and Manufacturing National Strategy*,<sup>3</sup> the White House Office of Science and Technology Policy (OSTP) established several strategic goals to advance the ISAM ecosystem, expand ground and space-based ISAM infrastructure, and accelerate the emerging commercial ISAM industry, including through increased collaboration between government and industry.<sup>4</sup> The interagency ISAM working group established under OSTP in collaboration with the National Space Council (NSpC), which produced the *National Strategy*, issued a Request for Comment<sup>5</sup> to assist in developing an Implementation Plan that will coordinate government-wide ISAM policy, including specific agency tasks.

The NSpC leads a working group to develop mission authorization policies for novel in-space activities, which will include commercial ISAM oversight, and OSTP is also leading a cislunar working group examining various policies governing activities beyond Earth's orbit,

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<sup>3</sup> National Science and Technology Council, *In-Space Servicing, Assembly, and Manufacturing Interagency Working Group, In-Space Servicing, Manufacturing, and Assembly National Strategy* (April 2022) (ISAM National Strategy), <https://www.whitehouse.gov/wp-content/uploads/2022/04/04-2022-ISAM-National-Strategy-Final.pdf>.

<sup>4</sup> *Id.*

<sup>5</sup> See Office of Science and Technology Policy, *Notice of Request for Comment* (May, 2022), <https://www.federalregister.gov/documents/2022/05/04/2022-09549/notice-of-request-for-comment>. NTIA understands the FCC is participating in this interagency process and can expect additional guidance from the forthcoming implementation plan.

which will be relevant for some ISAM operations.<sup>6</sup> Finally, the NSpC sought comments and has been holding “listening sessions” on both “Novel Space Capabilities” as well as “Approaches for Authorization & Supervision.”<sup>7</sup> As the Aerospace Industries Association noted, “Vice President Kamala Harris requested National Space Council Members to provide, “a proposal for the authorization and supervision of commercial novel space activities within 180 days.”<sup>8</sup> The FCC is part of that process and should continue coordination with the Executive Branch.

## II.

Importantly, federal agencies anticipate leveraging commercial ISAM capabilities and are exploring and demonstrating ISAM’s potential. NASA, in particular, is pursuing missions to demonstrate the viability of ISAM capabilities and to help advance their potential through ISAM missions in collaboration with industry partners. For example, NASA’s On-orbit Servicing, Assembly, and Manufacturing (OSAM-1) spacecraft is designed to rendezvous with, grasp, refuel and relocate a government-owned satellite that was not originally designed for this type of servicing.<sup>9</sup> Government satellites of course could benefit from ISAM operations to extend their serviceable life and maximize the efficient use of existing space assets.

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<sup>6</sup> See Office of Science and Technology Policy, *Notice of Request for Comment* (July 2022), <https://www.federalregister.gov/documents/2022/07/06/2022-14316/request-for-information-cislunar-science-and-technology-subcommittee>.

<sup>7</sup> National Space Council, *Notice; Request for Comment* (Nov. 2022), <https://www.federalregister.gov/documents/2022/10/17/2022-22413/notice-of-in-space-authorization-and-supervision-policy-listening-sessions-request-for-comments>.

<sup>8</sup> Comments of Aerospace Industries Association (AIA), at 3, IB Dockets Nos. 22-271, 22-272 (filed Oct. 21, 2022).

<sup>9</sup> See “OSAM-1 Mission: Proving Satellite Servicing,” NASA (visited Oct. 2022), <https://nexus.gsfc.nasa.gov/osam-1.html>; Other NASA-led ISAM demonstration missions focus on on-orbit assembly, manufacturing, and refueling. The OSAM-1 spacecraft will also host the Space Infrastructure Dexterous Robot (SPIDER) an industry-developed craft supported by NASA. See Proving Satellite servicing, NASA (visited Oct. 2022), <https://nexus.gsfc.nasa.gov/osam-1.html>; Satellite Servicing TDM Project Overview, NASA (visited Oct. 2022),

## CONCLUSION

NTIA and federal agencies support and commend the FCC's efforts to ensure non-federal ISAM activities have sufficient access to spectrum and to enable the growth of these services. As the President's advisor on telecommunications and information policy, NTIA has a role in the development of Executive Branch policy efforts in ISAM operations, as well as space operations that address spectrum use, orbital debris, planetary protection, space situational awareness, mission authorization and other relevant issues for authorization and supervision of commercial novel uses of space. NTIA may provide further comments as appropriate with respect to evolving spectrum management and critical commercial space and telecommunications issues.

Sincerely,

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[https://www.nasa.gov/mission\\_pages/tdm/satellite-servicing.html](https://www.nasa.gov/mission_pages/tdm/satellite-servicing.html); On-Orbit Servicing, Assembly, and Manufacturing 2 (OSAM-2), NASA (visited Oct. 2022), [https://www.nasa.gov/mission\\_pages/tdm/osam-2.html](https://www.nasa.gov/mission_pages/tdm/osam-2.html).