Space Commerce Highlights

News from the Office of Space Commerce

August 2025

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From the Acting Director

Colleagues and friends,

August was a monumental month for the U.S. commercial space industry. On August 13, President Trump signed an executive order to unleash American entrepreneurship and innovation in outer space.

Among the order's directives, it elevates the Office of Space Commerce into the Office of the Secretary of the Department of Commerce; and tasks the Department to develop a proposal for authorizing "novel space activities."

The Department of Commerce and OSC stand ready to work with partners in industry and across the government to clear the way for U.S. businesses to lead in the space frontier.

Looking ahead, the team has an eventful few months, with more opportunities to engage with stakeholders across the commercial space industry - including at the AMOS Conference, World Space Business Week, and IAC 2025. We are excited to connect with you and continue our important conversations.

As always, I look forward to hearing from you!

Janice Starzyk
Acting Director (Deputy Director)
NOAA OSC

On August 13, 2025 President Trump took bold action to unlock the heavens for American commerce.

The Administration enacted Executive Order "**Enabling Competition in the Commercial Space Industry**," providing U.S. space entrepreneurs with long-sought regulatory guidance and enabling the continued development of the U.S. commercial space industry. With this Executive Order, the President directed Commerce Secretary Howard Lutnick to facilitate the promotion of the Office of Space Commerce (OSC) into the Office of the Secretary, allowing space commerce full recognition as an emerging frontier for the American economy and doubling down on fostering U.S. competitiveness in space.

Sixty-seven years ago, America launched its first satellite into space ushering the world into a new era of innovation and advancement," said Secretary Howard Lutnick. "***Yesterday's visionary Executive Order unlocks boundless opportunities for our nation's space pioneers and empowers them to lead the world into the vast frontier of tomorrow***."

"*Innovation is key to pioneering the next frontier, and that starts by streamlining the regulatory landscape and reducing bureaucracy*," said Commerce Deputy Secretary Paul Dabbar. "*America leads the world in innovation and space capabilities, including infrastructure development and exploratory missions.* ***The Department of Commerce is committed to advancing U.S. leadership in the space sector as we continue to develop the world's best commercial and scientific applications for space deployment***."

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Stakeholder Engagements

OSC & NIST Host Circular Space Economy Seminar

On August 27, OSC kicked off the second seminar in our "Circular Space Economy" series, co-hosted with the National Institute of Standards and Technology.

Key topics addressed included commercialization; investment, financing, and insurance for on-orbit servicing; in-situ resource utilization; advanced robotics for manufacturing and repair; and space situational awareness. In addition, technology-agnostic approaches for developing, testing, and deploying applications will be discussed to better understand the future of space-based infrastructure and its interoperability needs.

To access recordings of the seminar, visit the **NIST event webpage here**.

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OSC Discusses Voluntary Consensus Standards with CONFERS

On August 6, OSC's Senior Advisor, Dr. Dianne Poster, participated in a webinar hosted by the Consortium for Execution of Rendezvous and Servicing Operations (CONFERS) on "the power of voluntary consensus standards."

This fireside chat explored how the transformative power of voluntary consensus standards is being brought to bear in overcoming these hurdles. Speakers examined the role of voluntary consensus standards in fostering a sustainable and robust in-space economy.

A recording of the webinar is publicly available on **OSC's website, here**.

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Across Commerce

OSC & NIST Partner with Rhodium Scientific to Study Space-Flown Reference Materials

On Sunday, August 24, 2025, a Falcon 9 rocket lifted off from Kennedy Space Center. Onboard this **NASA Commercial Resupply Services-33** flight was a wide array of **reference materials** – things like samples of cholesterol, uric acid, creatinine, tripalmitin, and organic contaminants in house dust – which were developed by the Department of Commerce's **National Institute of Standards and Technology** (NIST) and transferred to Rhodium Scientific for integration into their specialized hardware.

This groundbreaking effort has been made possible by a first-of-its-kind public-private research collaboration: a long-term Cooperative Research and Development Agreement (CRADA) signed between the U.S. Department of Commerce's Office of Space Commerce (OSC), NIST, and **Rhodium Scientific**.

This partnership combines NIST's authoritative technical and scientific expertise with OSC's close engagement with the U.S. commercial space sector and Rhodium Scientific's capabilities in commercial spaceflight access and proprietary hardware. This innovative collaboration is a major step forward in advancing the President's **Executive Order** enabling competition in the commercial space industry.

More information about partnering with NIST and NOAA, including existing public-private partnerships, can be found on the **NIST Technology Partnerships Office** and the **NOAA Technology Partnerships Office** websites.

Photo: NASA/Rhodium Scientific

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OSC's "Standards Corner"

Welcome to OSC's "Standards Corner!" Interested U.S. stakeholders may participate in standards development working groups and be members of the U.S. Technical Advisory Group (US TAG) for the International Organization for Standardization (ISO) Technical Committee 20 (TC20) Subcommittee 14 (**SC14**) or join working groups in the **Consultative Committee for Space Data Systems**.

The no fee memberships to these groups provides an opportunity to shape standards development. Reach out to **dianne.poster@noaa.gov** if you are interested in more information.

ISO/TC 20/SC 14 Space Systems and Operations Update

ISO/TC20/SC14 seeks to facilitate commerce and to enhance safety, efficiency, and interoperability in all aspects of space activity by developing and achieving international consensus on standards and practices for space stakeholders. The Subcommittee has published **201 standards** and has **47 under development** at the time of this publication.

These standards are developed through the Subcommittee's work program among three advisory groups and eight working groups, which meet regularly in-person in the spring and fall of each calendar year and virtually throughout the year.

The US TAG welcomes input from stakeholders for its position on documents that are open for comment through the voting process.

The table below provides a listing of SC14 documents open for comment 30 days or longer from the date of this publication. For more information about a specific document and providing comments, please contact **dianne.poster@noaa.gov.**

Table: ISO documents in TC20/SC14 available for comments to the US TAG.[1]

Document Stage[2]	Document ID	Document Title
Committee Draft for Consultation	N2676 CD 20930 Edition 2	Calibration requirements for satellite based passive microwave sensors
New Work Item Proposal	N2674 ISO 26163	Multi-axis vibration testing
New Work Item Proposal	ISO/NP 26117	Modal testing
Draft International Standard	ISO/DIS 14711 Edition 2	Unmanned mission operations concepts — Guidelines
Draft International Standard	ISO/DIS 21886 Edition 2	Configuration management

[1] Documents have deadlines for comments 30 days or more from the date of this publication. Contact **dianne.poster@noaa.gov** for more information.

[2] A description of the stages for ISO standards development is available at this link: **https://www.iso.org/stages-and-resources-for-standards-development.html**

Spotlight on ISO 24113:2023, Space systems — Space debris mitigation requirements

This month's Standards Corner includes a detailed look at the published standard **ISO 24113:2023, Space systems — Space debris mitigation requirements**.

This is a high-level international standard that provides requirements for designing, operating, and disposing of spacecraft and launch vehicle orbital stages to reduce the generation of space debris. The standard aims to promote sustainable space use by focusing on four key areas: avoiding the intentional release of debris during operations, preventing orbital break-ups, disposing of defunct systems out of protected orbital regions, and minimizing the risk of ground casualties from re-entering objects.

ISOTC20/SC14 Working Group 7 (WG7) developed and maintains 24113 and its supporting standards. The Working Group will be convening its fall 2025 meeting 11-13 November..

Key Aspects of ISO 24113:2023

Comprehensive Scope: The standard applies to all unmanned systems in near-Earth space, including launch vehicle orbital stages, operating spacecraft, and any objects released during normal operations.

Hierarchical Structure*:* ISO 24113 is the top-level standard in a hierarchical structure of debris mitigation standards. Lower-level implementation standards provide more detailed requirements to support compliance with the high-level requirements of ISO 24113.

Focus on Prevention*:* The standard emphasizes proactive measures to prevent debris creation, such as designing spacecraft and launch vehicles with debris mitigation in mind, establishing operational procedures to avoid debris release and ensuring the prevention of accidental break-ups.

End-of-Mission Disposal*:* A core requirement is the active disposal of spacecraft and launch vehicle orbital stages after their mission ends to prevent them from becoming sources of future debris.

Re-entry Risk Management*:* ISO 24113 requires measures to minimize the risk of collision with other space objects and to reduce the potential for harm to people and the environment from atmospheric re-entry.

Evolution and Consolidation*:* The 2023 version (the fourth edition) incorporates content from previous, more detailed standards, resulting in a more concise and coherent set of documents.

International Collaboration*:* The standard is developed by ISO/TC 20/SC 14, Space systems and operations, an international body with 18 participating member countries/territories and 12 observing member countries/territories and is aligned with the United Nations' Guidelines for the Long-Term Sustainability of Outer Space Activities and the Inter-Agency Space Debris Coordination Committee Space Debris Mitigation Guidelines.

Example Areas for Application

One example to apply the standard is to tailor a mission to avoid debris. This could include plans to not jettison equipment or stages that are not essential for the mission.

Another example of applying the standard is to take measures to prevent break-ups by proactively avoiding accidental explosions through rigorous testing and mitigations plans prior to the mission, or by using collision avoidance measures during the mission lifetime.

A third example of an application is with respect to disposal, such as proactively moving geostationary satellites to a graveyard orbit or ensuring that low-Earth orbit satellites de-orbit within a certain timeframe after their mission ends.

These examples of application of ISO 24113:2023, Space systems — Space debris mitigation requirements demonstrate how it may be used to help avoid situations that could create large numbers of debris objects in the outer space environment.

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