

National Aeronautics and Space Administration

Headquarters

Washington, DC 20546-0001



June 6, 2019

NID 8600.121

Reply to Attn of: Human Exploration and Operations Mission Directorate

TO: Officials-in-Charge of Headquarters Offices
Directors, NASA Centers

FROM: Associate Administrator for Human Exploration and Operations

SUBJECT: NASA Interim Directive (NID): Use of International Space Station (ISS)
for Commercial and Marketing Activities

NASA Strategic Objective 2.1 directs the Agency to “lay the foundation for America to maintain a constant human presence in low-Earth orbit (LEO) to be enabled by a commercial market.” As part of developing this economy, NASA is using the ISS to stimulate both the supply and demand of robust commercial marketplace, with the vision of a sustained LEO human spaceflight presence where NASA could be one of many customers.

As part of this vision, this NID establishes ISS Program policies governing Commercial and Marketing Activities that can be carried out on the ISS by U.S. entities. The NID specifically addresses policies including:

- Manufacturing, production, transportation, or marketing of commercial resources and goods, including products intended for commercial sale on Earth.
- Inclusion of Private Astronauts on United States Government (USG) or commercial missions to the ISS and associated on-orbit activities; including Commercial and Marketing Activities.
- USG Astronauts conducting coordinated and scheduled activities in support of Commercial and Marketing Activities.
- Provision of resources available for use on the ISS for Commercial and Marketing Activities and associated pricing.

Additionally, the NID specifically calls out areas where these policies do not apply, including the ISS National Laboratory allocation, NASA’s commitments to its International Partners, and other traditionally governmental activities to which NASA reserves exclusive rights. The NID is consistent with Administration policy on commercial uses of LEO, and is consistent with the NASA Transition Authorization Act of 2017.

The NID will be publicly announced in June 2019, with the intention of stimulating commercial interest in new uses of ISS. HEOMD will maintain control over this policy, and will update it periodically as market conditions in LEO develop.

A handwritten signature in black ink, appearing to read "William H. Gerstenmaier". The signature is written in a cursive style with a large initial "W".

William H. Gerstenmaier

Enclosures

NASA Interim Directive (NID) on Use of International Space Station (ISS) for Commercial and Marketing Activities

RESPONSIBLE OFFICE: Human Exploration and Operations Mission Directorate (HEOMD)

1.0 PURPOSE

NASA seeks to achieve a continuous U.S. human presence in low-Earth orbit (LEO) – both with government astronauts and with private citizens – in order to support the utilization of space by U.S. citizens, companies, academia, and international partners and to maintain a permanent American foothold on the nearest part of the space frontier. As part of developing this economy, NASA is using the International Space Station (ISS) to stimulate the supply and demand of a robust commercial marketplace, with the vision of a sustained LEO human spaceflight presence where NASA could be one of many customers. This document supports this goal by establishing NASA ISS Program policies governing Commercial and Marketing Activities using the U.S. Government (USG) Modules with the intent of catalyzing and nurturing these markets leading to a commercial economy in LEO.

2.0 APPLICABILITY

This NID is applicable to NASA Headquarters and NASA Centers, including Component Facilities and Technical and Service Support Centers. This NID applies to the Jet Propulsion Laboratory which is a Federally Funded Research and Development Center, contractors, grant recipients, or parties to cooperative agreements, and other agreements to the extent specified or referenced in appropriate contracts, grants, or agreements.

3.0 SCOPE

This NID¹ is applicable to activities that have been identified by NASA as emerging commercial markets in LEO. These emerging markets can supplement the scientific research and technology development activities currently undertaken through the ISS National Laboratory. Additional areas of Commercial Activities may be added via updates to this NID as identified.

The Commercial and Marketing Activities addressed in this policy specifically include:

1. Manufacturing, production, transportation, or marketing of commercial resources and goods, including products intended for commercial sale on Earth;
2. Inclusion of Private Astronauts on USG or commercial missions to the ISS and associated on-orbit activities, including Commercial and Marketing Activities;
3. USG Astronauts conducting coordinated and scheduled activities in support of Commercial and Marketing Activities; and

¹ To see this NID and other NASA Policies, please visit: https://nodis3.gsfc.nasa.gov/OPD/OPD_list.cfm

4. Provision of resources available for use on the ISS for Commercial and Marketing Activities and associated pricing.

This NID does not address or implicate in any way:

1. Scientific research and technology development activities currently conducted through the ISS National Laboratory, including allocation of ISS resources;
2. Restrictions on NASA's ability to provide ISS resources to directly support Commercial and Marketing Activities without reimbursement or arrangement to recover costs to NASA;
3. NASA's requirements to make opportunities for Commercial and Marketing Activities on the ISS available in a fair and open manner;
4. NASA's commitments to the ISS partners, their rights and obligations as outlined in the ISS Intergovernmental Agreement (IGA), Memoranda of Understanding (MOU), and program documentation;
5. Activities to be conducted in the International Partner Modules or a Commercial Element, that does not use USG Astronauts, civil servants, or other USG resources;
6. Private Astronaut activities for purposes other than conducting Commercial and Marketing Activities in the USG Modules.

4.0 OBJECTIVES AND DEFINITIONS

4.1 OBJECTIVES

Per the International Space Station Transition Plan² delivered to Congress in March 2018, NASA identified ISS transition principles which laid out plans to:

- Have continuity among NASA's LEO, deep space exploration, development and research activities, and missions toward expanding human presence into the solar system.
- Expand U.S. human spaceflight leadership in LEO and deep space exploration, including continuity of the relationship with our current ISS international partners.
- Increase platform options in LEO to enable more ISS transition pathways, security through redundant capabilities, and industrial capability that can support NASA's deep space exploration needs.
- Continue to reduce the USG's long-term costs through private industry partnerships and competitive acquisition strategies.
- Continue to return benefits to humanity through USG-sponsored basic and applied on-orbit research – including National Lab.

This NID is intended to enable these objectives and is consistent with the National Aeronautics and Space Administration Transition Authorization Act (NTAA) of 2017.³ Once U.S. Entities

² "International Space Station Transition Report pursuant to Section 303(c)(2) of the NASA Transition Authorization Act of 2017" (P.L. 115-10); National Aeronautics and Space Administration, March 30, 2018; can be accessed online at: https://www.nasa.gov/sites/default/files/atoms/files/iss_transition_report_180330.pdf

³ National Aeronautics and Space Administration Transition Authorization Act of 2017, Pub. L. 115-10, 131 Stat. 18; can be accessed online at: <https://www.congress.gov/115/plaws/publ10/PLAW-115publ10.pdf>

are able to provide such activities or capabilities, NASA intends to adjust this NID, in whole or in part, as market conditions mature. Performance metrics for the success of this policy will be established and reported in accordance with criteria established by HEOMD.

4.2 DEFINITIONS

Below are a list of terms used in this document:

Term	Definition
Cargo Transfer Bag Equivalent (CTBE)	Unit for size of bag used to transport cargo from visiting vehicles, such as SpaceX, Northrop Grumman, or H-II Transfer Vehicle (HTV), to the ISS. Dimensions are 19 in x 16.25 in x 9 in, (48.3 cm x 41.3 cm x 22.9 cm). Weight limit is 60 lbs (27.2 kg).
Category B Activity	A non-government activity that does not meet the requirements of Section 5.1 of this NID. See Figure 5.1.1.
Commercial Element	Any individual habitable module, external platform, or deployable structure attached to ISS, owned and operated by a U.S. Entity to accommodate on-orbit activities.
Commercial and Marketing Activity (Category A)	Non-governmental activity (including marketing for such activity) proposed for execution within the USG Modules, with support from USG astronauts, or in NASA ground facilities. See Figure 5.1.1.
International Partner Astronaut	An individual, who is acting in their official capacity, has been qualified as an astronaut by their space agency, and is employed as a member of the astronaut corps of the agency of an ISS Partner (CSA, ESA, Government of Japan (GOJ)/JAXA and Roscosmos).
International Partner Elements	Japanese Experiment Module by Japan Aerospace Exploration Agency (JAXA), Columbus Research Laboratory by European Space Agency (ESA), Space Station Remote Manipulator System (SSRMS) by Canadian Space Agency (CSA), Special Purpose Dexterous Manipulator (Dextre) by CSA, and modules provided by Roscosmos State Corporation for Space Activities (Roscosmos) (See Figure 4.2.1).

ISS Crew Member	Any person approved for flight to the ISS beginning upon assignment to the crew for a specific government or commercial mission and ending upon completion of the post-flight activities related to their mission.
ISS Partner	Signatories to the Agreement Among The Government Of Canada, Governments Of The Member States Of ESA, GOJ, The Government Of The Russian Federation, and The Government Of The United States Of America Concerning Cooperation On The Civil International Space Station (IGA).
ISS Resources	ISS consumables (e.g. food, air) system capabilities or facilities (e.g. power, data, life support), whether on ground or on-orbit systems, that enable commercial missions, including upmass, downmass, and trash disposal.
ISS Services	Activities to be conducted by ISS crew or NASA ground personnel in support of Commercial Activities and/or Private Astronaut Missions
Private Astronaut	ISS Crew Member who is not a USG Astronaut or an ISS International Partner Astronaut.
Private Astronaut Mission	Commercial mission consisting of activities conducted by Private Astronauts on the ISS or in a Commercial Element attached to the ISS.
U.S. Entity	A (1) U.S. national or (2) entity organized under the laws of the U.S. that is more than 50 percent owned by U.S. nationals.
U.S. Government (USG) Astronauts	An individual who meets the definition of "government astronaut" under 51 USC § 50902 (4)(A), (B), and (C)(i), which means an individual who is an employee of the U.S. Government, including the uniformed services, engaged in the performance of a Federal function under authority of law or an Executive act and designated as a government astronaut by NASA in accordance with applicable NASA requirements.

<p>U.S. Government (USG) Modules</p>	<p>Node 1 (Unity), Joint Airlock (Quest), Node 3 (Tranquility), Cupola, Permanent Multipurpose Module, US Laboratory (Destiny), and Node 2 (Harmony), FGB (Functional Cargo Block). See Figure 4.2.1.</p>
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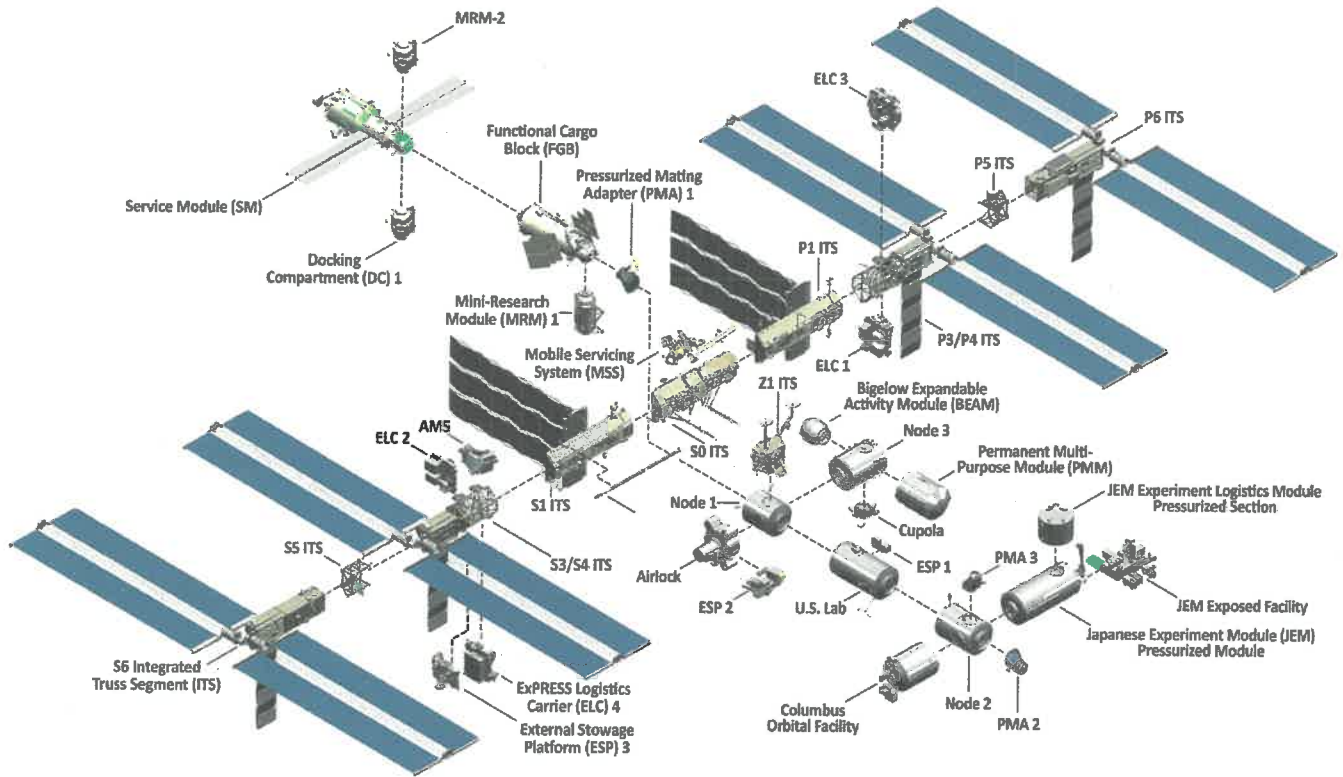


Figure 4.2.1: Component View of the International Space Station

5.0 AUTHORIZED COMMERCIAL AND MARKETING ACTIVITIES

		New Commercial and Marketing Activities		
		Category A		Category B
Ongoing activities allowed today		Section 5.1 Commercial Activities with ties to microgravity, NASA's mission, or sustaining a low-Earth orbit economy	Section 5.1 Marketing Activities with ties to microgravity, NASA's mission, or sustaining a low-Earth orbit economy	All Other Activities with no ties to microgravity, NASA's mission, or sustaining a low-Earth orbit economy
NASA Astronaut Gov't Civil Servant	<ul style="list-style-type: none"> NASA Research and Development ISS National Lab Research and Development Station sustaining tasks 	Section 6.3.1 • May provide support for activities on a reimbursable basis	Section 6.3.1 May provide support if <ul style="list-style-type: none"> Consistent with Ethics requirements Behind the scenes Reimbursable 	Section 6.3.2 Not Authorized
	<ul style="list-style-type: none"> May support via partnership or contract 	Section 6.2.1 • May conduct activities if consistent with ISS operational restrictions and ISS Resources are available	Section 6.2.1 • May conduct marketing activities if consistent with ISS operational restrictions and ISS Resources are available	Section 6.2.1 • May conduct activities in non-USG modules of ISS as agreed-to with owner
Non-Civil Servants (Private Astronaut Missions)				

Figure 5.1.1 Graphical Representation of Authorized Activities on ISS

5.1 PREREQUISITES TO PERFORM COMMERCIAL AND MARKETING ACTIVITIES

Commercial and Marketing Activities anticipated to be conducted in the USG Modules must comply with at least one of the following:⁴

1. Require the unique microgravity environment to enable manufacturing or production or development of a commercial application; or
2. Have a nexus to the NASA mission;⁵ or
3. Support the development of a sustainable LEO economy.

⁴ Activities which do not meet these requirements are considered Category B Activities and are not currently authorized to be conducted in the USG Modules.

⁵ See 51 U.S.C. § 20102. Congressional declaration of policy and purpose; can be accessed online at <http://uscode.house.gov/statviewer.htm?volume=124&page=3330>

5.2 AUTHORIZED COMMERCIAL AND MARKETING ACTIVITIES

U.S. Entities meeting the prerequisites above shall have the ability to pursue the following activities in the USG Modules:

1. Commercial Activities (Category A), including activities that can be defined as non-government but are not considered research or technology development.⁶ This includes manufacturing, production, or transportation of goods. Commercial Activities must meet all requirements set forth in this NID.
2. Marketing Activities (Category A) that are factually accurate and meet NASA's media and advertising guidelines.⁷ Marketing activities must also meet all requirements set forth in this NID.

5.3 REQUIREMENTS FOR COMMERCIAL AND MARKETING ACTIVITIES TO BE CONDUCTED ON THE ISS

Commercial and Marketing Activities conducted on the ISS and facilitated by NASA or using USG resources shall comply with all of the following:

1. Shall comply with all U.S. laws and regulations;
2. Shall not compromise the safety of NASA civil servant or contractor personnel, NASA facilities, ISS Crew Members, ISS Modules, or on-orbit vehicles;
3. Shall not reflect unfavorably on NASA, any ISS Partner, or related entity;
4. Shall be subject to the IGA, MOUs and implementing arrangements, and related obligations to the ISS Partners;
5. Shall respect the intellectual property rights (including rights of publicity) of NASA, U.S. Entities, ISS Crew Members, ISS Partners, or any of their related entities;
6. Shall only task USG Astronauts and other USG personnel with duties consistent with the Standards of Ethical Conduct for Employees of the Executive Branch, 5 C.F.R. Part 2635, and all other applicable USG ethics requirements;
7. Shall be executed through an arrangement with a U.S. Entity or NASA;
8. Shall adhere to the Code of Conduct for International Space Station Crew;⁸
9. Shall not imply or suggest NASA or USG endorsement for any Commercial Activity;
10. Shall not use any image(s) of the NASA insignia or emblem, or other material(s) that could imply that the Commercial Activity is endorsed or supported by NASA;
11. Shall not use any corporate name(s), logo(s), or trademark(s) depicted in marketing activities without permission.

In order for an activity to be approved for conduct in the USG Modules and therefore an ISS duty, the activity must (1) have met all requirements above and (2) be documented in a written agreement between NASA and the U.S. Entity pursuing the activity.

⁶ Research and development activities are conducted through the ISS National Laboratory allocation of ISS resources.

⁷ NASA Media Use Guidelines can be accessed online at: <https://www.nasa.gov/multimedia/guidelines/index.html>
NASA Advertising Guidelines can be accessed online at:
https://www.nasa.gov/audience/formedia/features/Advertising_Guidelines.html

⁸ Code of Conduct for International Space Station Crew, 14 Code of Federal Regulations (C.F.R.) § 1214.4

6.0 ISS CREW MEMBER SUPPORT OF COMMERCIAL AND MARKETING ACTIVITIES

The following sections outline the policies for Private Astronauts and NASA/USG Astronauts to support approved Commercial and Marketing Activities on the ISS.

6.1 CREW CODE OF CONDUCT FOR INTERNATIONAL SPACE STATION

The Crew Code of Conduct (CCOC) for International Space Station applies to any person approved for flight to the ISS, including Private Astronauts, beginning upon assignment to the crew for a specific mission and ending upon completion of the postflight activities related to their mission. All coordinated and scheduled Commercial and Marketing Activities utilizing USG Modules and performed by ISS Crew Members, as defined in the CCOC, shall be approved by NASA through established processes for crew assignments and considered ISS duties under the CCOC.⁹ All ISS Crew Members remain subject to the authority of the ISS Commander and are subject to restrictions on their use of position and mementos and personal effects. They also remain subject to disciplinary policy of the Multilateral Crew Operations Panel, as well as other restrictions on physical and information security, as provided in the CCOC.

6.2 PRIVATE ASTRONAUTS

The following outlines the approved and prohibited activities of a private astronaut conducting approved Commercial and Marketing Activities on ISS. Each Private Astronaut mission shall be executed through an arrangement with a U.S. Entity. All activities of Private Astronauts shall require advance coordination with, and approval by, NASA.

6.2.1 Private Astronaut Supported Activities

A Private Astronaut assigned to a mission on the ISS shall have the ability to conduct ISS duties:

1. Approved Commercial and Marketing Activities, within the constraints of sections 5.0 (Authorized Commercial and Marketing Activities) and 6.0 (ISS Crewmember Support of Commercial and Marketing Activities);
2. Subject to the permission of the respective ISS Partner or a Commercial Element owner, Private Astronauts may pursue approved Category B Activities in areas other than USG elements including International Partner Modules or Commercial Elements as long as such activities are in accordance with the CCOC, applicable contracts or agreements, and other limitations pertaining to the activities of such Private Astronauts.

⁹ Conduct of an approved activity in compliance with a written agreement with NASA and sections 5.0 and 6.0 is an ISS duty under the Crew Code of Conduct, Part II, Subpart C. Under the CCOC, such approved ISS duties are “not considered to be motivated by private gain.” USG astronauts and all USG employees are additionally subject to USG ethics requirements as identified herein, and nothing in this NID alters these domestic requirements or the meaning of terms used in conjunction with them.

6.2.2 Private Astronauts Prohibited Activities

Unless otherwise agreed to by NASA, a Private Astronaut assigned to a mission on the ISS shall be prohibited from the following activities:

1. Tasks that include use of high criticality hardware as determined by the ISS program;
2. Volunteer services when undertaken for the direct benefit or use of the USG.

6.3 U.S. GOVERNMENT ASTRONAUTS

The following outlines the approved and prohibited activities of a USG Astronaut conducting Commercial and Marketing Activities on the ISS.

6.3.1 USG Astronaut Supported Activities

A USG Astronaut shall have the ability to conduct reimbursable support of approved Commercial and Marketing Activities provided that no individually distinctive or identifiable attributes of the USG Astronaut, visual or auditory, may appear in marketing, and any support is consistent with the Standards of Ethical Conduct for Employees of the Executive Branch, 5 C.F.R. Part 2635, and all other USG ethics requirements.¹⁰

6.3.2 USG Astronauts Prohibited Activities

USG Astronauts assigned to a mission on the ISS are prohibited from the following duties in conjunction with Commercial and Marketing Activities:

1. Marketing Activities in which individually distinctive or identifiable attributes of the USG Astronaut, visual or auditory, appear or any other activity prohibited by USG ethics requirements;
2. Tasks that have not been coordinated and scheduled under this NID;
3. Category B Activities.

7.0 PURCHASING AND USING ISS RESOURCES

NASA has reserved a set amount of resources intended to serve Commercial and Marketing Activities, as shown in Figure 7.1.

The ISS Resources identified are:

1. Available for purchase;
2. Shall be provided only on a non-interference basis; and
3. Subject to change if crew safety (including Private Astronauts), vehicle safety, and/or mission objectives are at risk.

¹⁰ Nothing in this NID is intended to limit NASA's ability to educate, inform, and inspire the public consistent with NASA's statutory responsibility to "provide for the widest practicable and appropriate dissemination of information concerning its activities and the results thereof." 51 U.S.C.A. § 20112 (a)(3); can be accessed online at: <http://uscode.house.gov/statviewer.htm?volume=124&page=3333>.

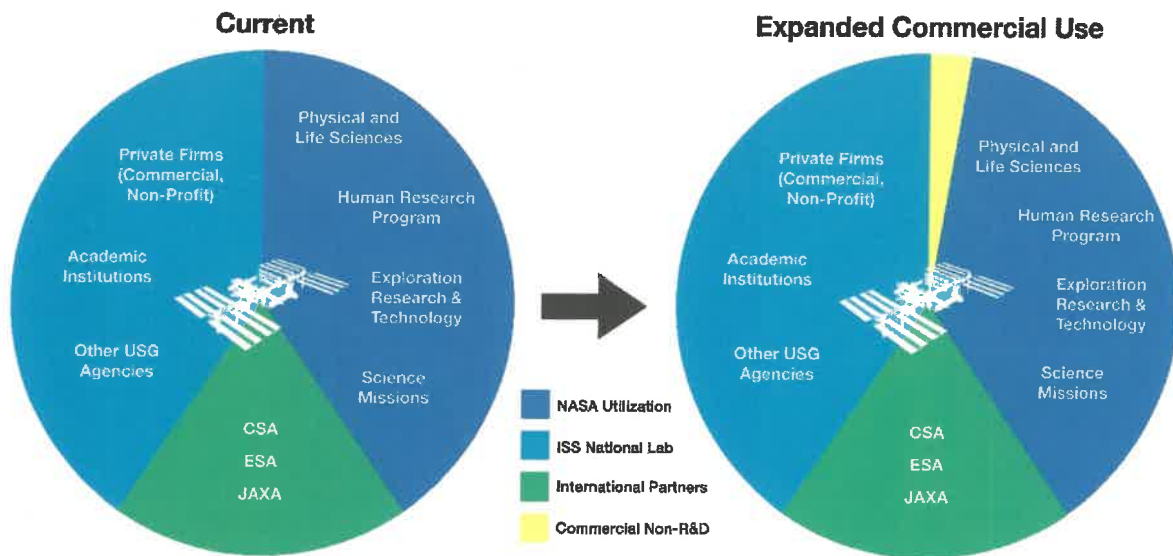


Figure 7.1: USOS Resources Allocated for Commercial Use (not to scale)

All Commercial and Marketing Activities that utilize ISS Resources shall require a Reimbursable Space Act Agreement (RSAA) or another arrangement with NASA to recover costs to NASA. U.S Entities may not resell purchased ISS Resources under any circumstances.

NASA is restricted from competing with the U.S. private sector; therefore, if, at any point, a U.S. Entity is available to provide any of these resources, NASA shall, to the best of its ability, migrate the provision of such services to the non-USG provider.

Pricing for resources available for use on the ISS for Commercial and Marketing Activities can be found at <https://www.nasa.gov/leo-economy/low-earth-orbit-economy>. The prices do not reflect full recovery of NASA's costs and may be subject to adjustment.¹¹ NASA shall reassess the value and amount of available resources approximately every six months and make adjustments as necessary. These prices are for the specific purposes noted in this policy. Alternate prices are utilized for activities outside of this policy.

¹¹ The requirements in NPR 9090.1 with respect to an Agency CFO waiver are not required for the pricing offered under this NID. The JSC Center CFO is delegated latitude to design an appropriate EPR process to capture costs and waived amounts for subject activities; the requirements of NPR 9090 otherwise remain in full effect.