



THE WHITE HOUSE
WASHINGTON

National Cislunar Science & Technology Strategy

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White House Office of Science and Technology Policy

Technical Presentation

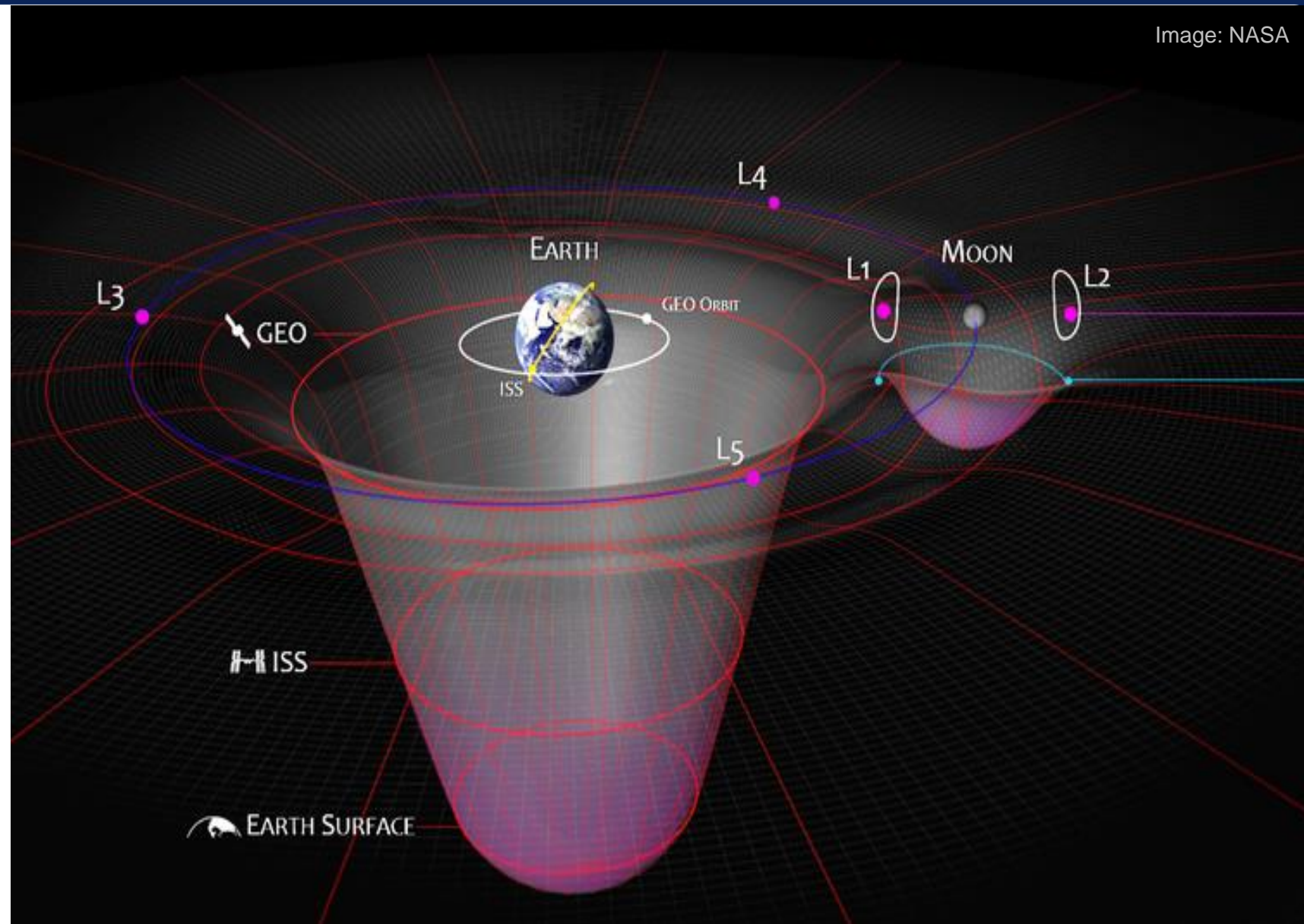
United Nations / Committee on the Peaceful Uses of Outer Space

June 2, 2023

Cislunar Space

Cislunar space is the three-dimensional volume of space beyond Earth's geosynchronous orbit that is mainly under the gravitational influence of the Earth and/or the Moon.

Cislunar space includes the Earth-Moon Lagrange point regions, trajectories utilizing those regions, and (for the purposes of this strategy) the Lunar surface.



A new sphere of human activity and exploration

- The decade ahead is important for exploration of Cislunar space, including the Lunar surface.
- Over the next decade, human activity in Cislunar space is expected to grow significantly.
- Many more countries and private entities are going to the Moon in the years ahead.
- Spacefaring nations will begin to set important new precedents across the next decade.





NATIONAL CISLUNAR SCIENCE & TECHNOLOGY STRATEGY

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CISLUNAR TECHNOLOGY STRATEGY
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U.S. science and technology leadership in Cislunar space will support the *responsible, peaceful, and sustainable* exploration and use of Cislunar space, including the Moon, by all space-faring nations and entities.

- Support R&D to enable long-term growth in Cislunar space
- Expand International S&T Cooperation in Cislunar Space
- Expand Space Situational Awareness (SSA) Capabilities into Cislunar Space
- Implement Cislunar communications and positioning, navigation, and timing capabilities with scalable and interoperable approaches.



Objective 1:

Support R&D to enable long-term growth in Cislunar space

- **Enable Enduring Human Presence**
 - Technologies to enable enduring human presence in Cislunar space and inform crewed missions to Mars and beyond.
 - Mitigating negative effects on humans caused by the space environment.
 - New social science relevant to crewed exploration and permanent inhabitation of deep space.
- Advance Cislunar Science
- Support our Workforce



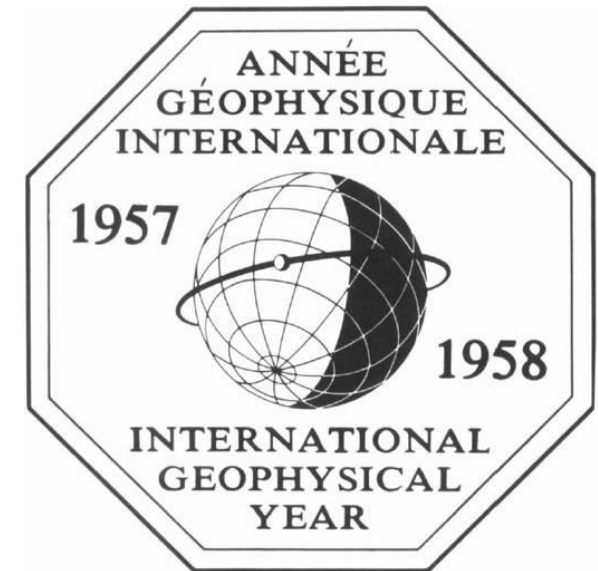
Objective 2:

Expand international science and technology cooperation in Cislunar space

- **Support the establishment of an International Lunar Year.** Build upon historical examples of past International Polar Years, the International Geophysical Year, and the International Space Year to foster advances in the coordinated use of Lunar data centers, coordinated Moon-based research, and other areas.
- **Develop technical foundations of best practices for safe Cislunar spaceflight operations.**



ISY



Objective 3:

Expand space situational awareness capabilities into Cislunar space

- Evaluate SSA needs, priorities, and existing gaps for extending current SSA capabilities into Cislunar space.
- Improve current sensors and demonstrate cost-effective new sensors as needed.
- Increase cooperation and data-exchanges with other users of Cislunar space.
- Develop an integrated Cislunar object catalog.
- **Develop procedures for publicly sharing Cislunar space situational awareness data, as well as navigation and spaceflight safety support in Cislunar space.**



Objective 4:

Implement Cislunar communications and positioning, navigation, and timing capabilities with scalable and interoperable approaches.

- Establish foundational capabilities in a timely fashion to enable a flexible Cislunar architecture.
- **Ensure that capabilities for U.S. government Cislunar operations are scalable and interoperable with systems operated by private and international actors.**
- Coordinate new Cislunar activities with existing in-space operations.





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