

Advisory Committee for Excellence in Space

ACES



Mission Authorization
October 3, 2024

Agenda

- 1) Mission Authorization Background & History
- 2) Mission Authorization Proposals
- 3) Role for ACES Mission Authorization Subcommittee



Agenda

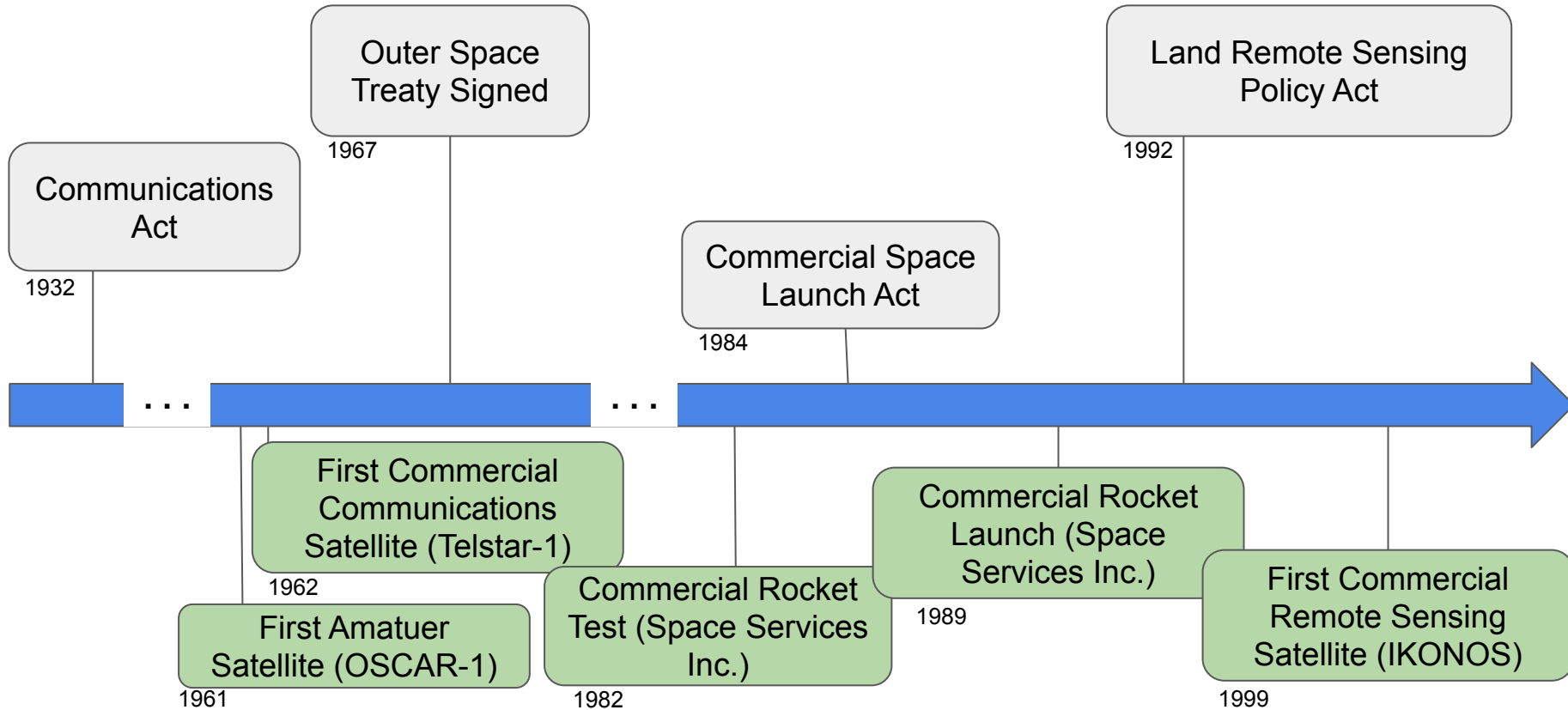
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Need for Mission Authorization



History of Oversight and Industry



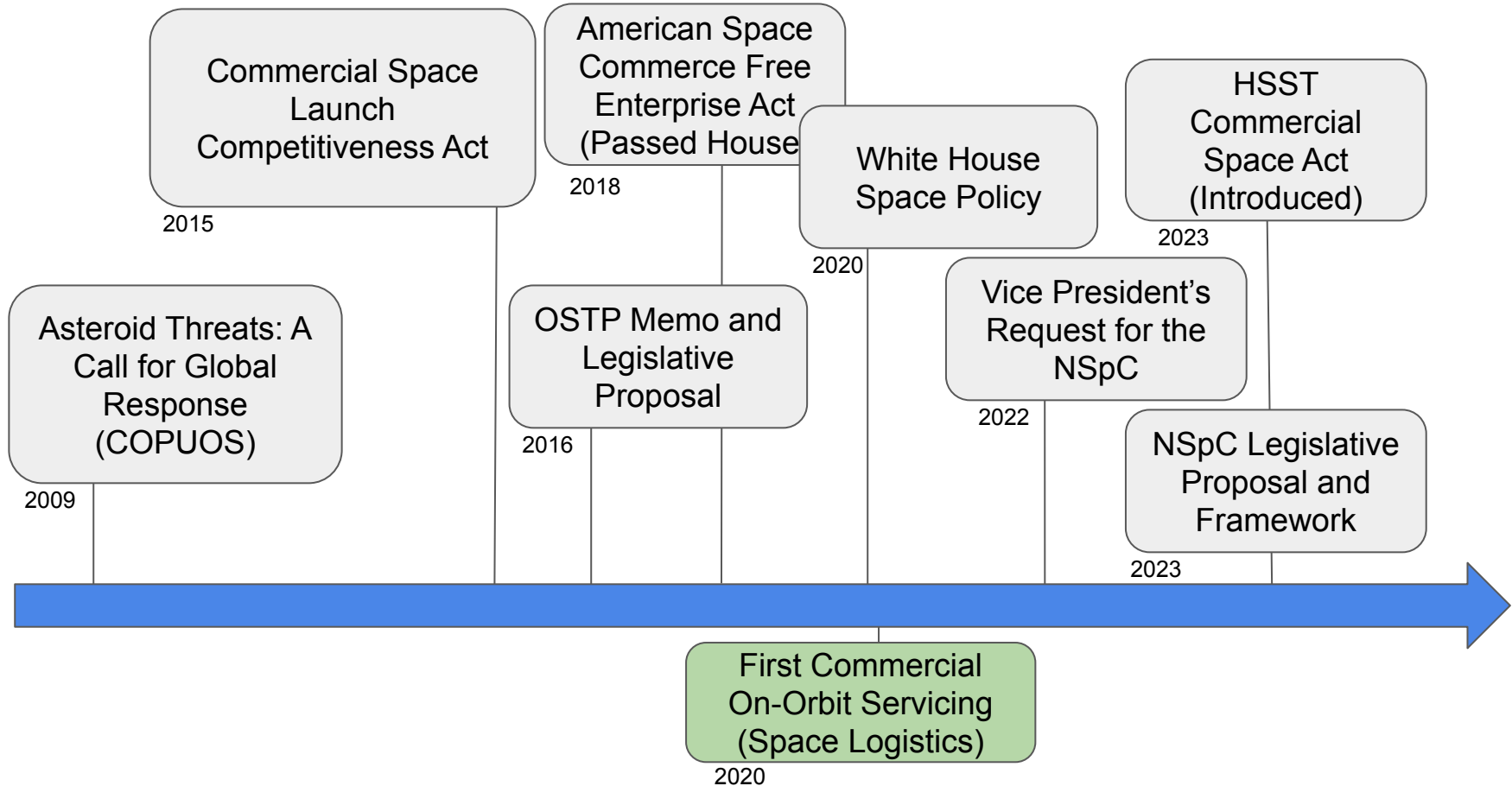
Need for Mission Authorization: Outer Space Treaty



The activities of non-governmental entities in outer space, including the moon and other celestial bodies, shall require **authorization and continuing supervision** by the appropriate State Party to the Treaty.



More Recent History



The State of US Space Regulation Today



Spectrum Management

Independent:

Federal Communications
Commission (FCC)

Dept of COMMERCE:

National Telecommunications
and Information Admin (NTIA)

Regulation of Remote Sensing Data

Dept of COMMERCE:

Office of Space
Commerce (OSC)

Export Control

Dept of STATE:

Directorate of Defense
Trade Controls (DDTC)

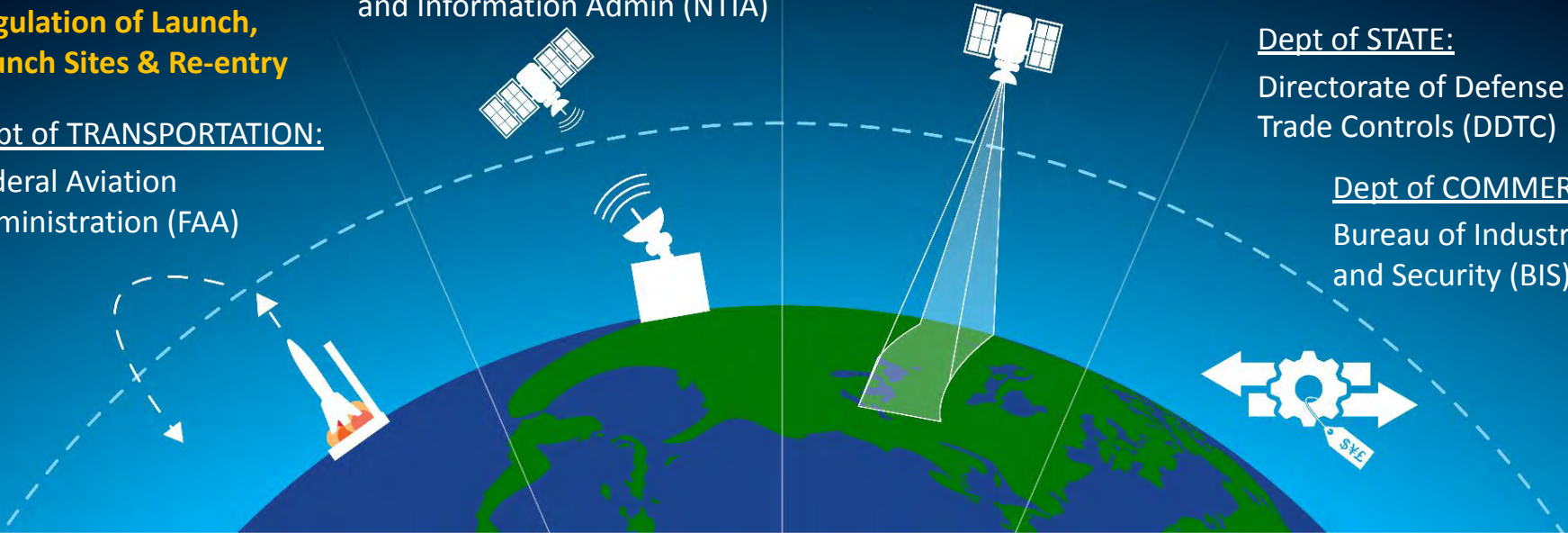
Dept of COMMERCE:

Bureau of Industry
and Security (BIS)

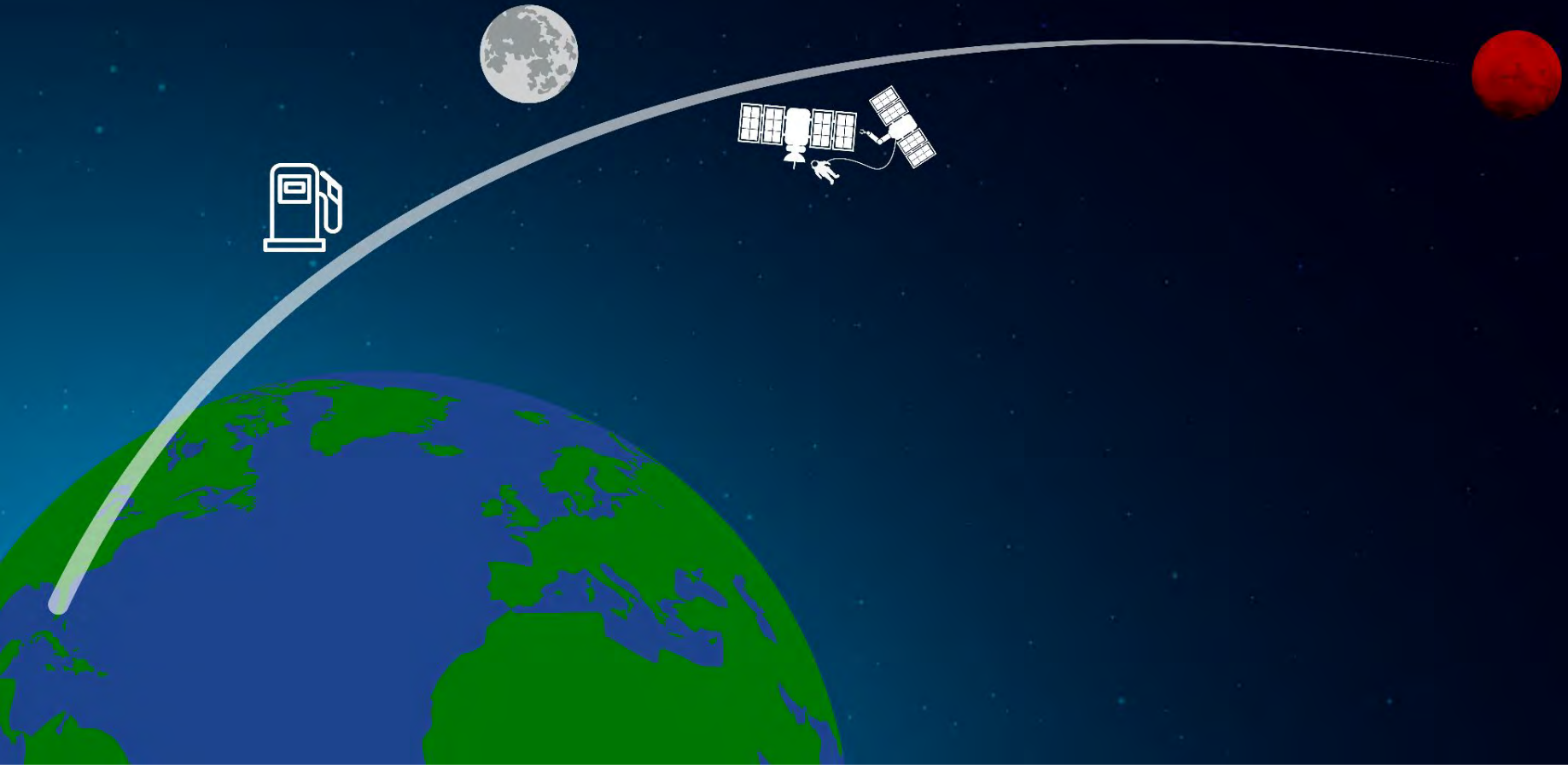
Regulation of Launch, Launch Sites & Re-entry

Dept of TRANSPORTATION:

Federal Aviation
Administration (FAA)



What is left in space?



Challenges with the Status Quo

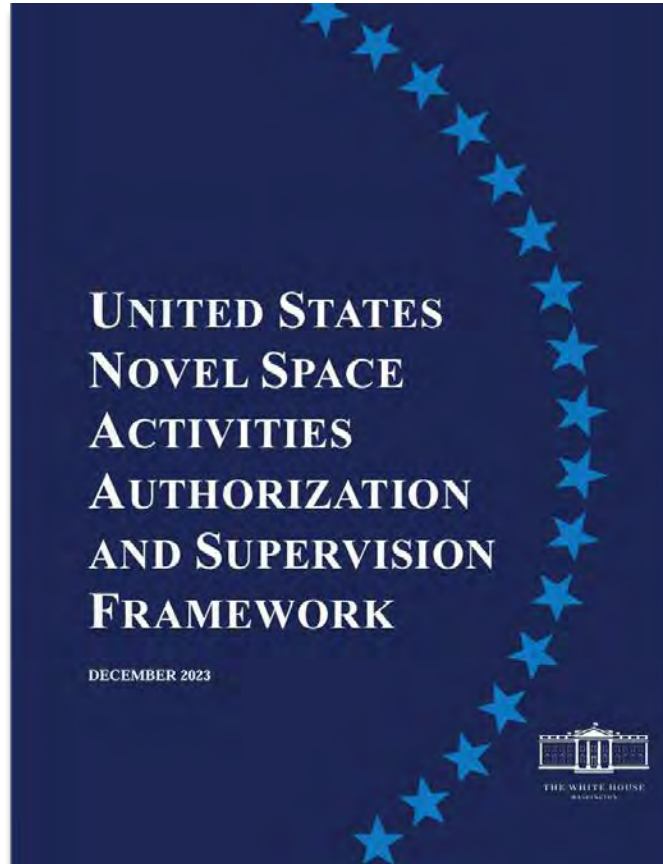


- Inability to take legitimate (?) national interests into account
 - Human heritage protections
 - Non-interference with other missions and USG operations
 - Social and cultural concerns (see the Navajo response to cremains)
 - Unanticipated concerns
- Possible loss of ability to regulate for sustainability in light of *Loper Bright*
- Lack of procedural clarity, especially for novel activities that cross multiple domains of USG governance (e.g. nuclear, CLDs and other multi-mission platforms)
- Resulting in chilled investment and competitive disadvantage

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Draft Bill Text

“Authorization and Supervision of Novel Private Sector Space Activities Act”

TITLE I – DEPARTMENT OF TRANSPORTATION AUTHORITIES

SEC. 101. COMMERCIAL HUMAN SPACE FLIGHT ACTIVITIES.

Chapter 509 of title 51, United States Code, is amended—

(1) in section 50901—

(A) in subsection (a)—

(i) in paragraph (6) by striking “national security and foreign policy interests” and inserting “national security, foreign policy, and other national interests”; and

(ii) in paragraph (7) by striking “and national security and foreign policy interests” and inserting “space sustainability, and national security, foreign policy, and other national interests;” and

TITLE II – DEPARTMENT OF COMMERCE AUTHORITIES

Subtitle A

SEC. 201. SHORT TITLE.

This subtitle may be cited as the “Comprehensive Oversight and Supervision of Missions in Outer Space Act of 2023” or the “COSMOS Act”.

SEC. 202. DEFINITIONS.

Section 60101 of title 51, United States Code, is amended by—

(1) redesignating paragraphs (1) through (11) as paragraphs (2) through (12);

(2) redesignating paragraph (12) as paragraph (14);

(3) redesignating paragraph (13) as paragraph (17);

(4) adding before paragraph (2), as so redesignated, the following—

“(1) CONDUCT.—The term “conduct” means to have decision-making authority over an

The White House Proposal



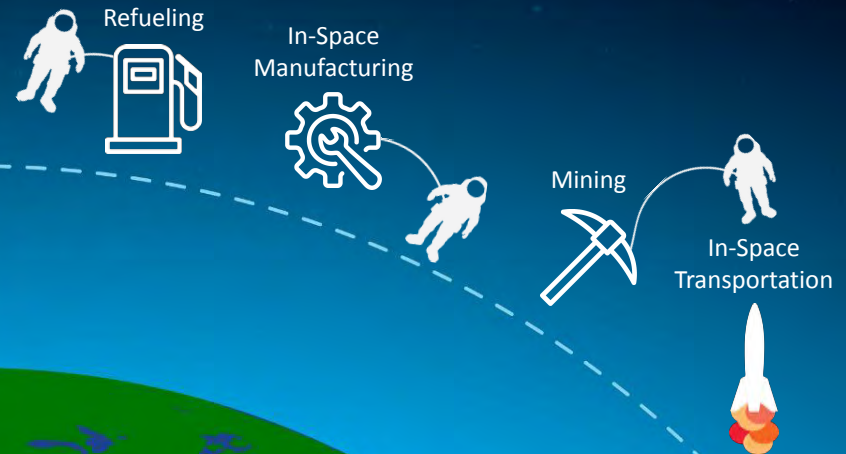
Department of Commerce

All other in-space activities

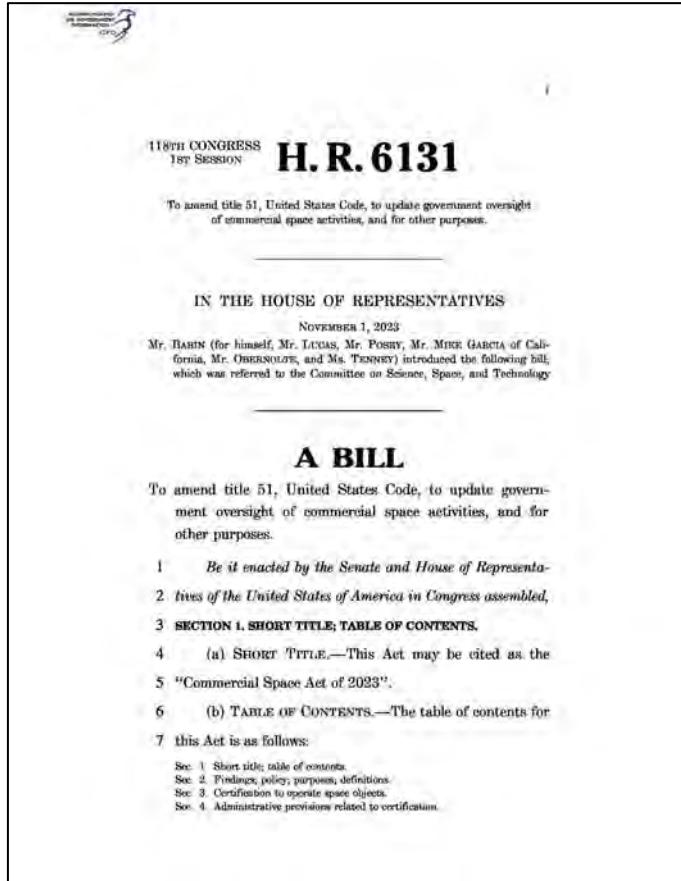


Department of Transportation

Crewed activities,
Transportation



The HSST Commercial Space Act of 2023



- Conditions for specific international treaties
- Certification process
- Includes remote sensing

HSST Commercial Space Act of 2023



Department of Commerce

All new authorities provided
to DOC



In-Space
Manufacturing



Refueling



In-Space
Transportation



Mining

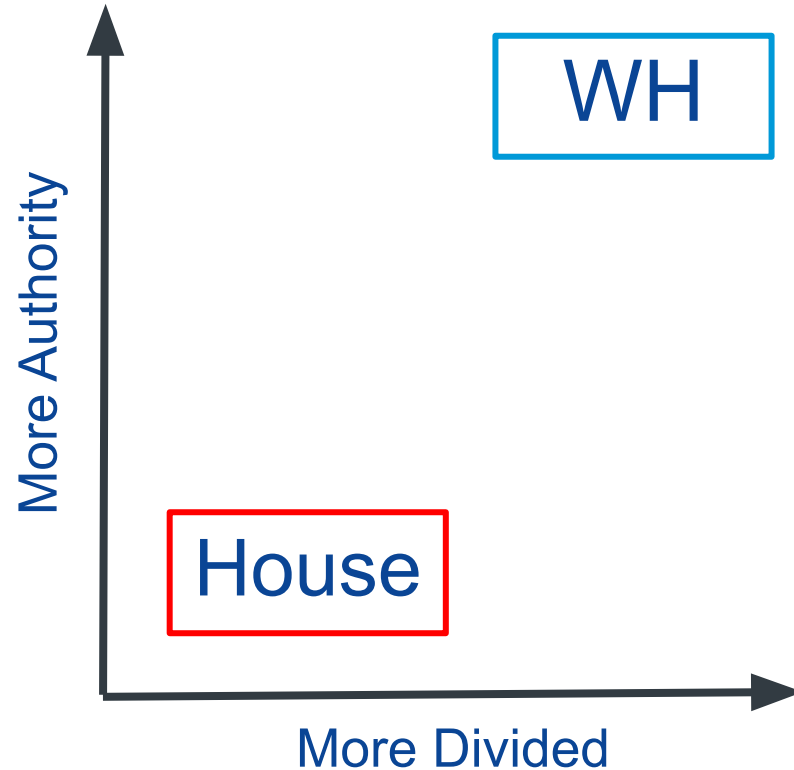


Comparison of Proposals



X axis: Split of authority between DOT and DOC

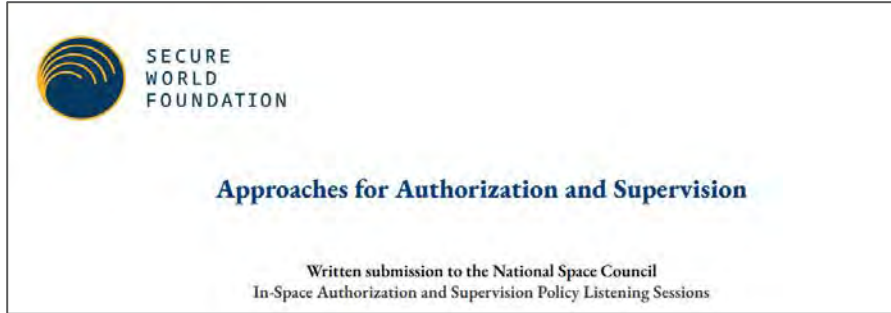
Y axis: Amount of authority given to Executive Branch



Industry Feedback and Comments So Far



NSPC held listening sessions and received comments:



White House National space Council User Advisory Group commented:

**ECONOMIC DEVELOPMENT AND INDUSTRIAL BASE
Mission Authorization and Supervision Paper**

Summary of Recommendations (full substance in paper)

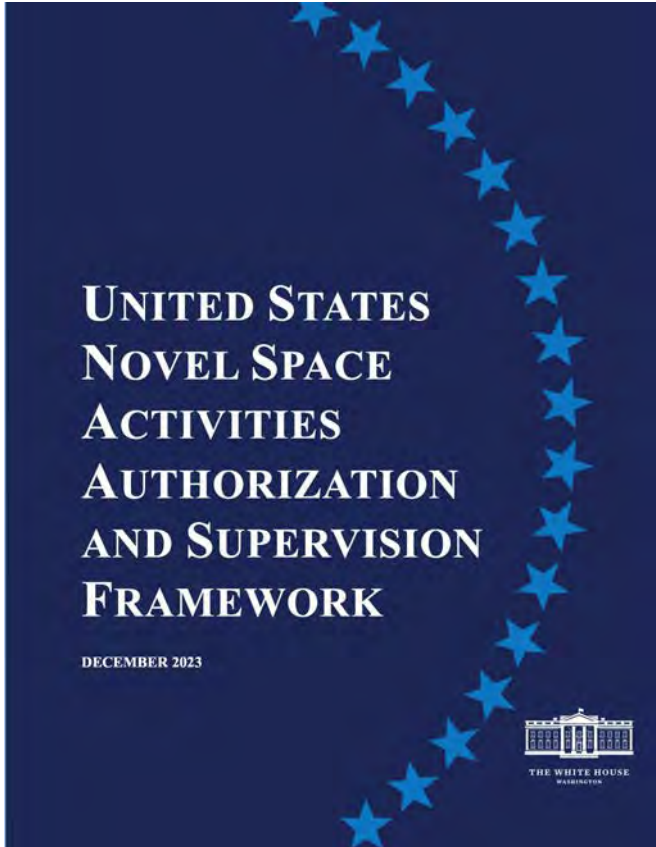
To ensure US leadership in space, the Subcommittee recommends the inclusion of the following elements in a mission authorization and supervision framework:

1. Public review and comment prior to implementation
2. Tailored approach to ensure any new regulation is not duplicative
3. Presumption of Authorization due to the varied and novel nature of activities
4. Strict timeline – not more than 60 days to determine authorization

Congress also heard feedback from industry:

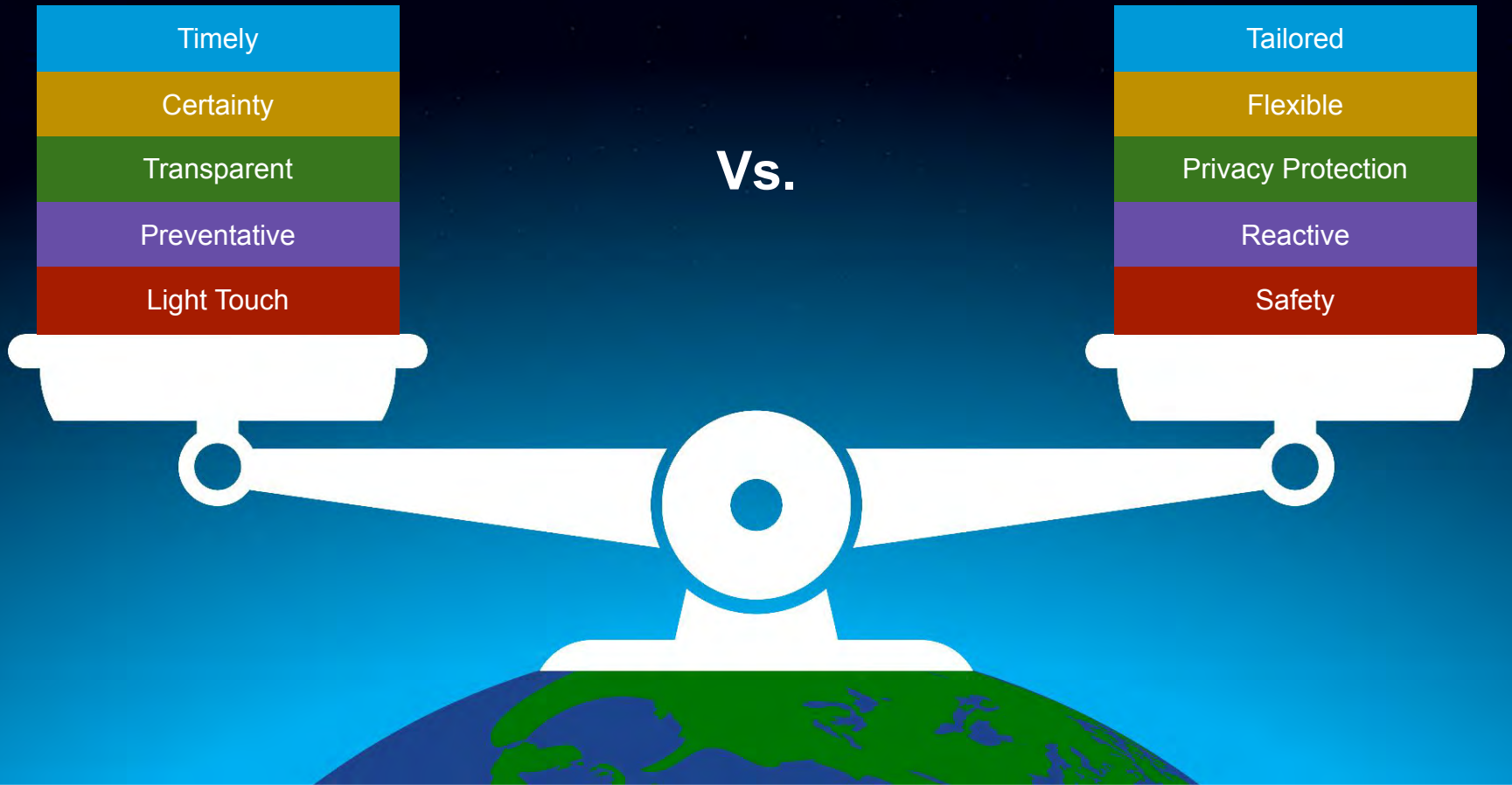
“We oppose the recently released National Space Council (NSPC) proposal on the topic in its current form, which fails to consider the points that CSF and many other stakeholders raised during the NSPC listening sessions last year.” Commercial Spaceflight Federation.

What Makes a Successful Proposal?



- Collaborative with private industry
- Preserves the space environment
- Address national security, international obligations, foreign policy interests
- Avoid duplication
- Transparent
- Timely
- Certainty
- Adaptable to new technologies

Turning Buzzwords into Reality



Timely

Certainty

Transparent

Preventative

Light Touch

Vs.

Tailored

Flexible

Privacy Protection

Reactive

Safety

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Possible Subcommittee Roles



- 1) Action the Office of Space Commerce Could Take Now
- 2) Evaluate Mission Authorization Frameworks
- 3) Prepare for and Implement Mission Authorization

Action the Office of Space Commerce Can Take Now



Non-Regulatory Solutions?

Interagency Coordination?

Something else?

Warnings



Public Education



Hotlines



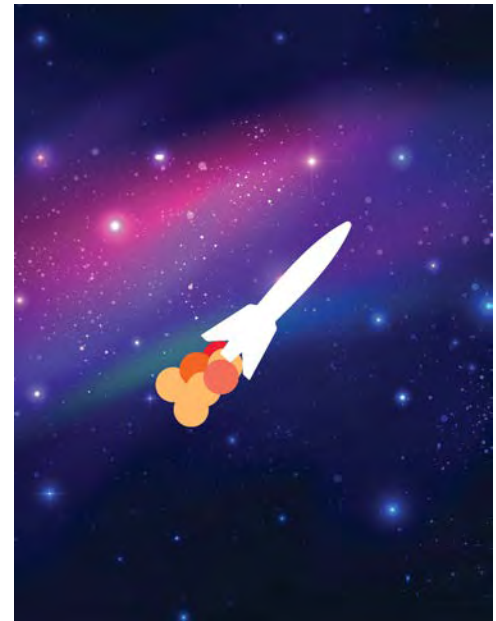
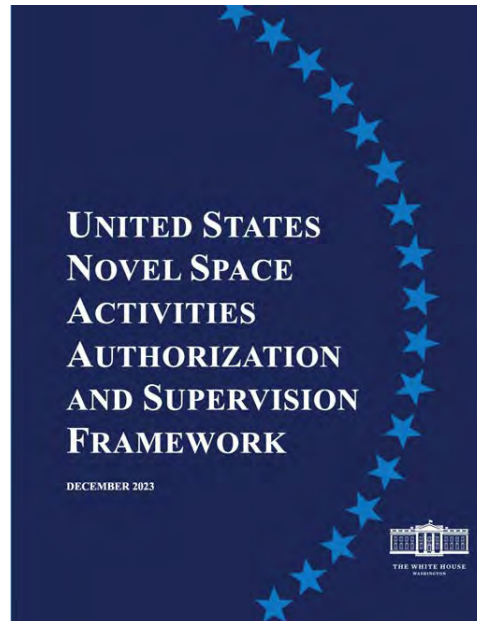
Letters



Industry Standards



Certifications and rewards



Evaluating Mission Authorization Frameworks



Identify Framework Objectives



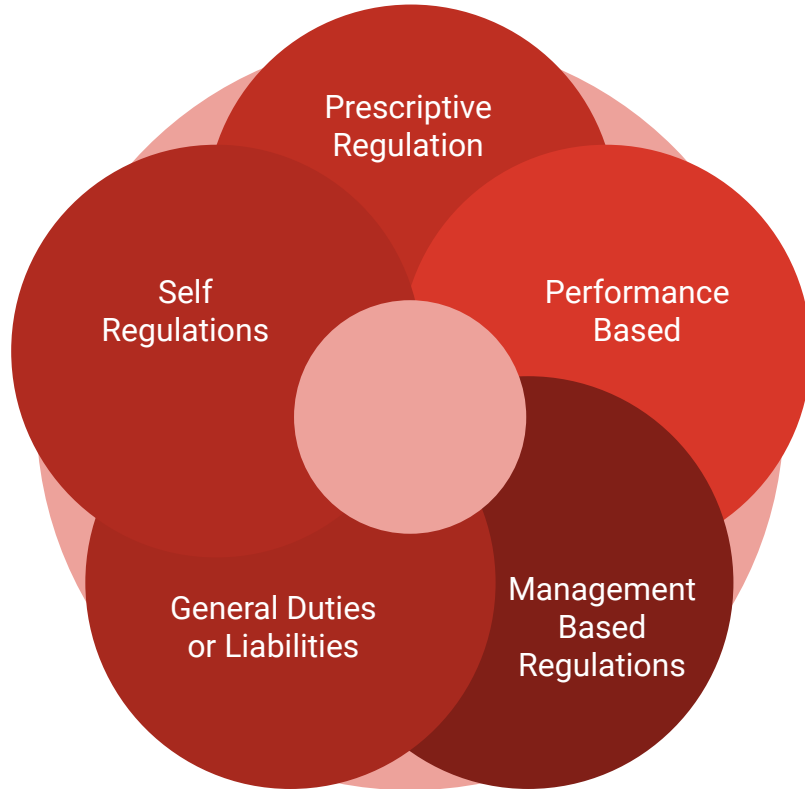
Framework Review



Establish Evaluation Criteria



Selecting Regulatory Approaches



Building Expertise

“[E]xpert regulators who know just enough about a domain to make cogent decisions but are not flummocked by cognitive biases of studying the topic for their entire careers are able to aggressively move away from the status quo.” Darren McKnight, LeoLabs.

Defining and Balancing Needs



Additional Possible Subcommittee Topics



- **Actions the Office of Space Commerce can take now:**
 - What can we do with our current statutory authority and under the 2023 Mission Authorization Framework? Are there any non-statutory, non-regulatory solutions?
 - How should we prepare for statutory authority, and how should we prioritize those actions?
 - How should we practice for/test mission authorization approaches?
 - What do we need to know about emerging novel activities and business practices?
- **Evaluate Mission Authorization Frameworks:**
 - What is the appropriate division of agency roles?
 - What is the appropriate amount of agency oversight? What should regulators be able to consider or require? “National interest” criteria? Sustainability? Heritage?
 - How to address existing regulatory structures (build off of or revisit)?
- **Preparing for and Implementing Mission Authorization:**
 - Types of regulations: prescriptive, general duty, performance, management, hybrid?
 - How should we prioritize competing interests?
 - What to learn from CRSRA regulations? Other US or foreign space regulations? Non-space regulations?
 - Is there a role for other regulators? Nuclear power sources, drug manufacturing, human safety, etc.?
 - How do we incorporate industry best practices into regulations and licenses?

Final Thoughts

- Critical to get this right
- We need your expertise

