The background features a dark blue gradient with a starry space pattern. Overlaid on this are several technical diagrams, including circular gauges with numerical scales (e.g., 140, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260) and various circular and dashed lines, suggesting a technical or scientific theme.

SPACE LAW AND POLICY  
WITH SIMULATED NEGOTIATIONS  
[2]

THE OUTER SPACE TREATY OF 1967  
+  
NATIONAL SPACE LAW AND POLICY OF US

18 APRIL 2016

YURI TAKAYA (PH.D)

LECTURER, KOBE UNIVERSITY

## SPACE NEWS:

◆ BBC News, 28 March 2016: Japanese satellite Hitomi: Lost in space?

### Mission:

It was designed to study energetic space objects such as supermassive **black holes**, **neutron stars**, and **galaxy clusters**, by observing energy wavelengths from X-rays to gamma-rays.

### Current situation:

17 February	Successfully Launched
26 March	Telecommunication problem occurs during satellite operation
2 April	Sprit into 2 bodies

Video: (Newsy Science) <https://www.youtube.com/watch?v=1IqGZ1BvRRw>



# THE OUTER SPACE TREATY OF 1967

# 1. OVERVIEW OF MILITARY USES OF OUTER SPACE



© USAF

II WW Germany invented V2 missile/rocket

After II WW Technology transfer

Engineers → US Hardware and staff → Soviet Union

1950s-70s Space Arms Race for “National Prestige”

Anti-Satellite (ASAT) tests were repeated by superpowers

1972 (-2001) Anti-Ballistic Missile Treaty was concluded by US and Soviet Union.

→ ASAT tests were prohibited until 2001.

1983 US made an announcement on Strategic Defense Initiative (SDI)

1990s GPS became operational

1990-91 GPS was used during war for the first time

2001 9.11 → US Withdraw from ABM Treaty to restart Missile Defense

2005 Afghanistan War → Unmanned Aerial Vehicles (UAVs)

became operational

## 2. INTERNATIONAL VENUES FOR SPACE MATTERS

- Peaceful Uses → UN **Committee on the Peaceful Uses of Outer Space: UNCOPUOS**  
established as ad hoc committee by UNGA Res. 1148 (XII) in 1957  
established as permanent committee by UNGA Res. 1348 (XII) in 1958  
emphasis was placed on **peaceful** uses of outer space and international cooperation
  
- Military Uses of Outer Space → Conference on Disarmament (× UN)  
**1985-1994 ad hoc Ad Hoc Committee on Prevention of an Arms Race in Outer Space**  
established by UNGA Res. 39/59 in 1984  
in response to former US President Reagan on its “Star Wars” project  
to consider:
  - (1) Prevention of an Arms Race in Outer Space
  - (2) the existing treaties related to outer space
  - (3) existing proposals and initiatives in future

### 3. The outer space treaty of 1967

Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies

- Article 1 Principle of Free Exploration and Use of Outer Space
- Article 2 Principle of Non-Appropriation
- Article 3 Application of International Law to Outer Space
- Article 4 Principle of Peaceful Uses of Outer Space  
(Prohibition of WMD Deployment in Outer Space)
- Article 5 Astronauts Rescue
- Article 6 International Responsibility
- Article 7 International Liability
- Article 8 Jurisdiction and Control over Registered Space Object
- Article 9 Principle of International Cooperation
- Article 10 Observation
- Article 11 Information-Sharing
- Article 12 Inspection on the Moon (✕ Article 13-17: Procedural Provisions)

## ARTICLE I: PRINCIPLE OF FREE EXPLORATION AND USE OF OUTER SPACE

The **exploration and use** of outer space, including the **moon** and **other celestial bodies**, shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development, and shall be **the province of all mankind**.

Outer space, including the moon and other celestial bodies, shall be **free for exploration and use** by **all States** without discrimination of any kind, on a basis of equality and in accordance with international law, and there shall be **free access to all areas of celestial bodies**.

There shall be **freedom of scientific investigation** in outer space, including the moon and other celestial bodies, and States shall facilitate and encourage **international co-operation** in such investigation.

## ARTICLE II: PRINCIPLE OF NON-APPROPRIATION OF OUTER SPACE

“Outer space, including the moon and other celestial bodies, is not subject to **national appropriation** by **claim of sovereignty**, by means of **use or occupation**, or by any other means.”

→ What about a Moon soil which is sold by US company?

## ARTICLE III: APPLICATION OF INTERNATIONAL LAW

“States Parties to the Treaty shall carry on activities in the exploration and use of outer space, including the moon and other celestial bodies, **in accordance with international law**, including **the Charter of the United Nations**, in the interest of maintaining international peace and security and promoting international cooperation and understanding.”

## ARTICLE IV: LIMITATION ON MILITARY USES OF OUTER SPACE

“States Parties to the Treaty undertake not to **place in orbit around the Earth** any objects carrying **nuclear weapons or any other kinds of weapons of mass destruction**, install such weapons on celestial bodies, or station such weapons in outer space in any other manner.

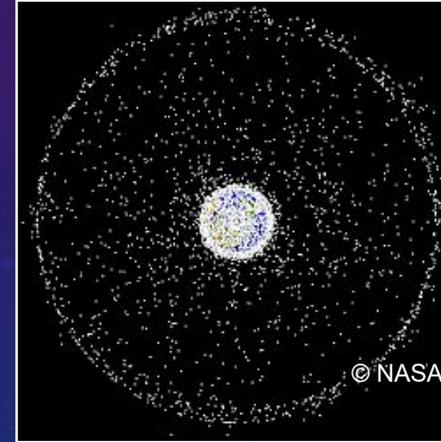
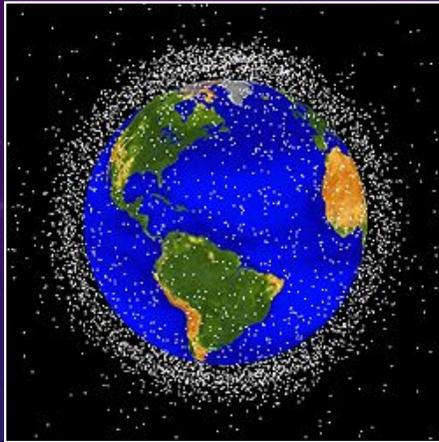
→ How about conventional weapons?

The **Moon and other celestial bodies** shall be used by all States Parties to the Treaty **exclusively for peaceful purposes**. The establishment of military bases, installations and fortifications, the testing of any type of weapons and the conduct of military maneuvers on celestial bodies shall be forbidden. The use of military personnel for scientific research or for any other peaceful purposes shall not be prohibited. The use of any equipment or facility necessary for peaceful exploration of the Moon and other celestial bodies shall also not be prohibited.”

10

→ What does “peaceful” means?

# EARTH ORBITS AND THEIR USE



160-22000km: Low Earth Orbit: LEO

mainly for **Earth Observation**

22000km: Medium Earth Orbit: MEO

mainly for **Positioning Navigation and Timing**

36000km: Geostationary Earth Orbit: GEO

mainly for **Telecommunication, Meteorology**

See, <https://www.youtube.com/watch?v=aCa3UZ2TQ0w>

## ARTICLE IV: LIMITATION ON MILITARY USES OF OUTER SPACE

### ◆ DEFINITION OF THE TERM “PEACEFUL” IN SPACE LAW

“Non-Military”: Russia, China, and others

“Non-Aggressive”: US, EU, and others

How about Japan?

until 2007, “non-military”

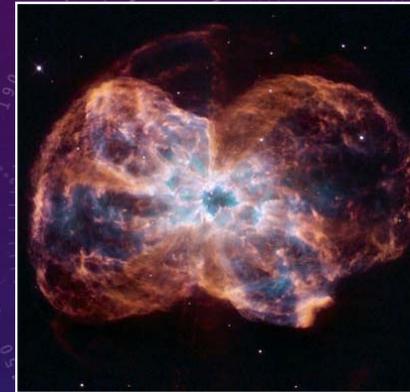
after 2008, when Space Basic Law was enacted → “non-aggressive”

(within Article IX of the Constitution<sup>12</sup> of Japan)

## Reasons for “Non-aggressive” interpretation:

Peaceful = Non-Military? Non-Aggressive

- Space technology is dual-use nature;
- Space mission uses military personnel and military equipment;
- Article IV (1) does not stipulates on the prohibition of conventional weapons;
- The right of self-defense is not prohibited based on Article 51 of the UN Charter; and
- The term “peaceful” used in Article I and IV are difference because the definition of ‘interest’ or ‘benefit’ are also different depending on states.



© NASA ESA

## ARTICLE V: ASTRONAUTS

- ✓ “States Parties to the Treaty shall regard **astronauts** as **envoys of mankind** in outer space and shall render to them all possible assistance in the event of **accident**, **distress**, or **emergency landing** on the territory of another State Party or on the **high seas**. When astronauts make such a landing, they shall be safely and promptly returned to the State of registry of their space vehicle.
- ✓ In carrying on activities **in outer space and on celestial bodies**, the astronauts of one State Party shall render all possible assistance to the astronauts of other States Parties.
- ✓ States Parties to the Treaty shall immediately **inform** the other States Parties to the Treaty or **the Secretary-General of the United Nations** of **any phenomena** they discover in outer space, including the Moon and other celestial bodies, which could constitute **a danger to the life or health of astronauts.**”

## ARTICLE VI: STATE RESPONSIBILITY

“States Parties to the Treaty shall bear international responsibility for **national activities** in outer space, including the Moon and other celestial bodies, whether such activities are carried on by **governmental agencies** or by **non-governmental entities**, and for assuring that national activities are carried out in conformity with the provisions set forth in the present 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.

When activities are carried on in outer space, including the Moon and other celestial bodies, by an international organization, responsibility for compliance with this Treaty shall be borne both by the international organization and by the States Parties to the Treaty participating in such organization..”



# SPACE LAW AND POLICY OF US

# 1. TREATIES US RATIFIES

◆ Space Treaties	The Outer Space Treaty of 1967	○
	The Rescue Agreement of 1968	○
	The Liability Convention of 1972	○
	The Registration Convention of 1975	○
	The Moon Agreement of 1979	×

## ◆ Delimitation of Outer Space

No Need to Delimitate nor Define

Reason: Past → Limited Sovereignty

Present → Protecting private entities

## ◆ Application of Space Law: Functionalist

## 2. US NATIONAL SPACE LAW

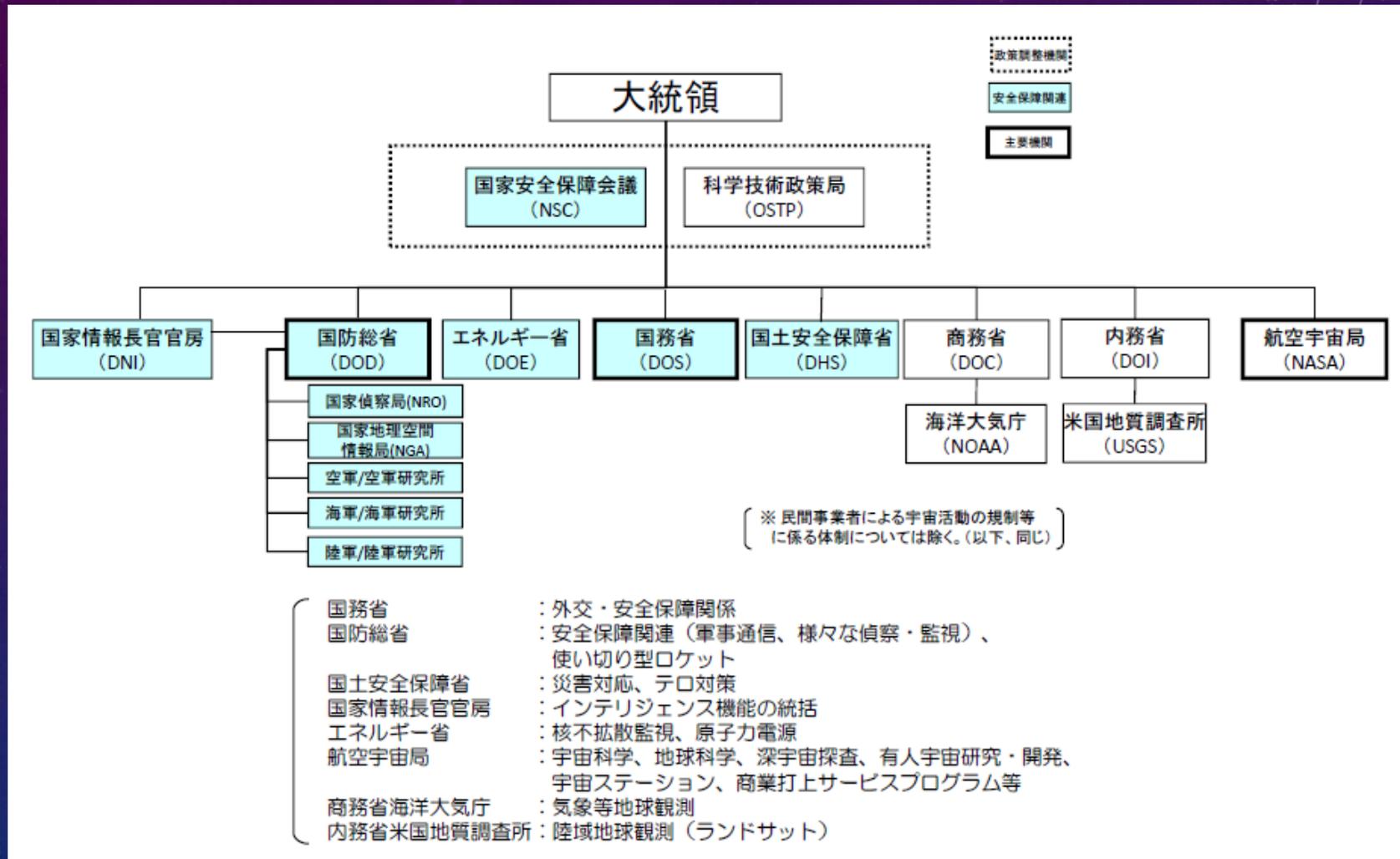
### ◆ National Space Law

- 1934 Telecommunication Act of 1937 as Amended (47 U.S.C. § 214, et seq. (1982) )
- 1958 The National Aeronautics and Space Act (Public Law 85-568 72 Stat. 426 (1958) As Amended)
- 1990 Invention in Outer Space (Public Law 101-580 [S. 459] )
- 1992 Land Remote Sensing Policy (United States Code Title 15 Chapter 82)
- 1998 Commercial Space Act (H.R. 1702 105<sup>th</sup> Congress of USA)
- 2004 Commercial Space Launch Activities (49 USC Chapter 701)

### 3. US SPACE POLICY

- ◆ The Eisenhower Administration:
  - 1958 NASA Act
  - Clear distinction between civil and military uses of outer space
- ◆ The Carter and Reagan Administrations
  - Reviewed Space Policy
  - Considered major role of space shuttle
- ◆ The Clinton Administration: **National Space Policy of 1996**
  - National security, diplomacy, economic growth were prioritized
  - commercial space activities
- ◆ The Bush Administration: **National Space Policy of 2006**
  - National security was most prioritized (the right of self-defense)
- ◆ The Obama Administration: **National Space Policy of 2010**
  - International cooperation, transparency and confidence-building measures, commercial space activities were prioritized

# SPACE-RELATED MINISTRIES



## 4. MINISTRIES RELATED TO OUTER SPACE ACTIVITIES

National Aeronautics and Space Administration [**NASA**]: aeronautical and space activities

Department of State [**DOS**]: export controls / international treaties

Department of Transportation [**DOT**]:

licenses and promotes commercial launch operations in conjunction with other agencies

example: Federal Aviation Administration [**FAA**]

Federal Communications Commission [**FCC**]

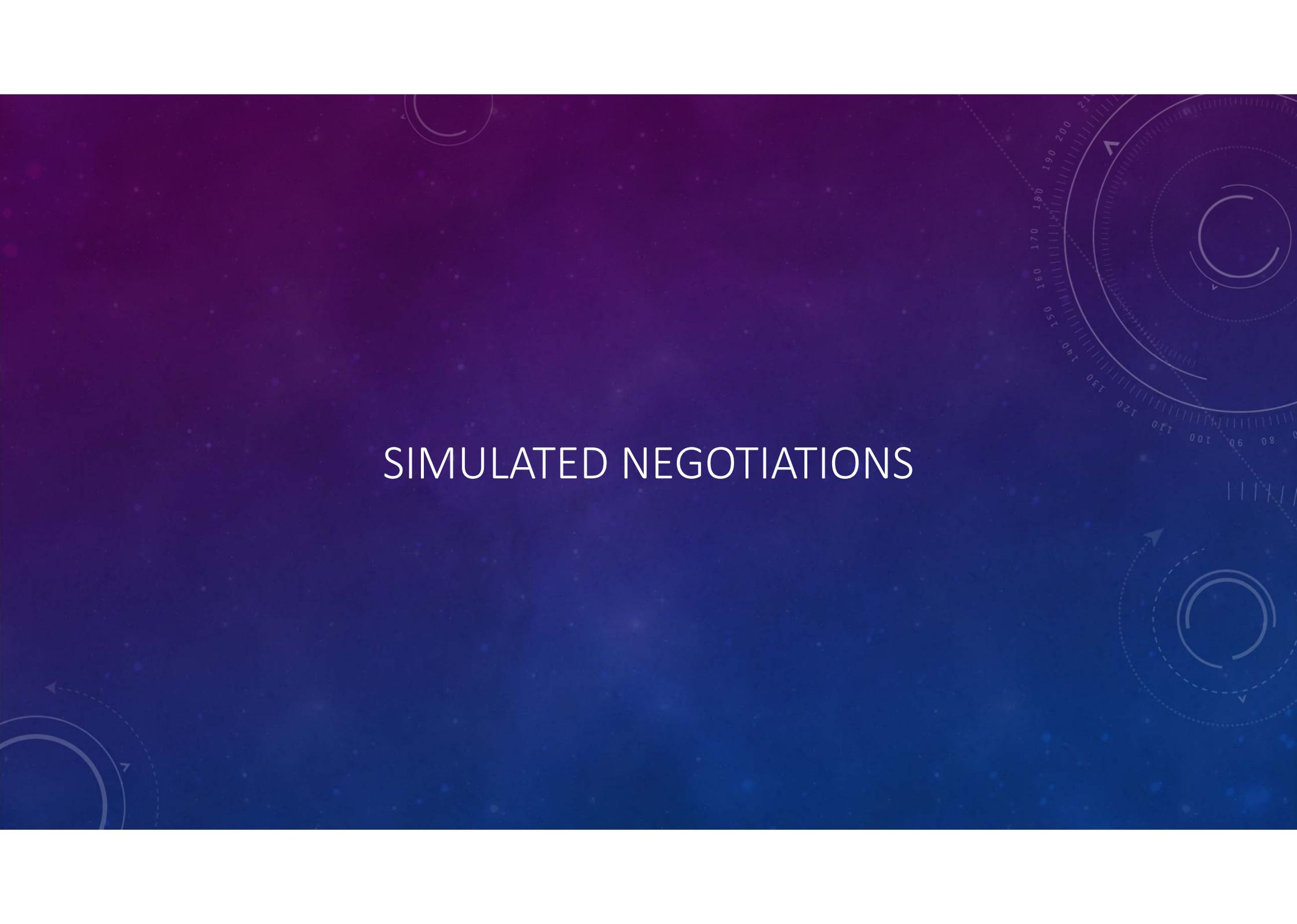
Department of Commerce [**DOC**]

National Oceanic and Atmospheric Administration [**NOAA**] engages in remote sensing, gathers data, conducts research, makes predictions about the Earth's environment

Office of Space Commercialization coordinates space-related issues and programs within DOC

Department of Defense [**DOD**]: uses space for national security

# SIMULATED NEGOTIATIONS

The background is a dark blue gradient with a field of small white stars. On the right side, there are several technical diagrams: a large circular gauge with a scale from 0 to 200, a smaller circular gauge with a scale from 0 to 100, and a dashed circular arrow. On the left side, there is a dashed circular arrow pointing left.

# SIMULATED NEGOTIATIONS

## TIME TABLE

15:50~16:10	Group Discussion
16:10~16:25	Presentation
16:25~16:35	Open Discussion
16:40	End

## SIMULATED NEGOTIATIONS: THEME

“WHAT ARE BENEFITS AND PROBLEMS  
IF **ALL STATES** CARRY OUT OUTER SPACE ACTIVITIES?”

Please take the following issues into consideration:

- ✓ What are the nature of space technology?
- ✓ While UN has **193** member states, space-faring states with full launching capability are **9** states (Russia, US, EU, Japan, China, India, Ukraine, Israel, Iran)

Team A	Team B	Team C

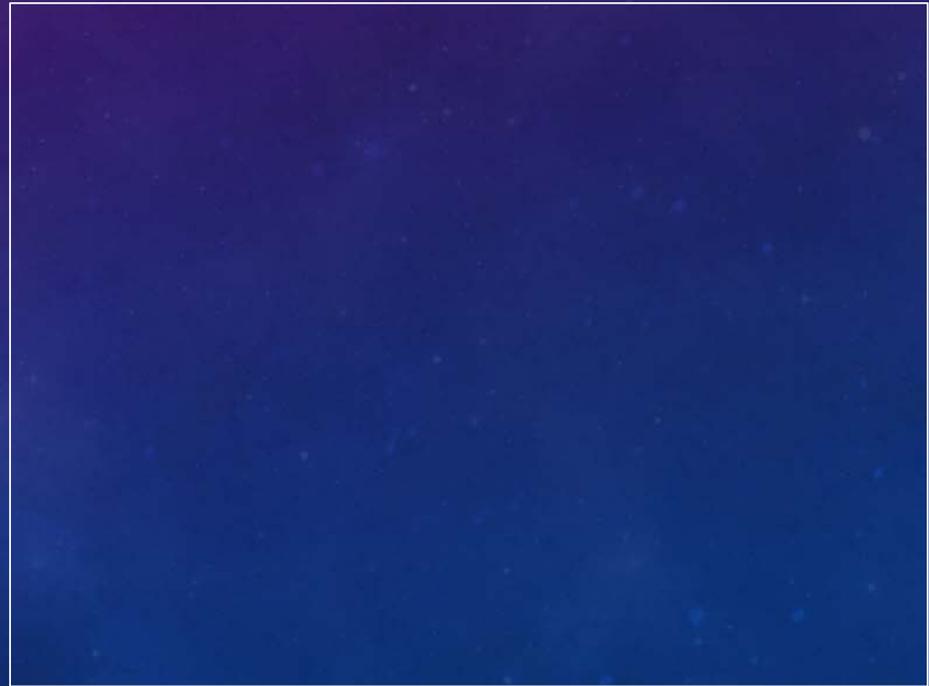
NEXT WEEK'S THEME [APRIL 25]

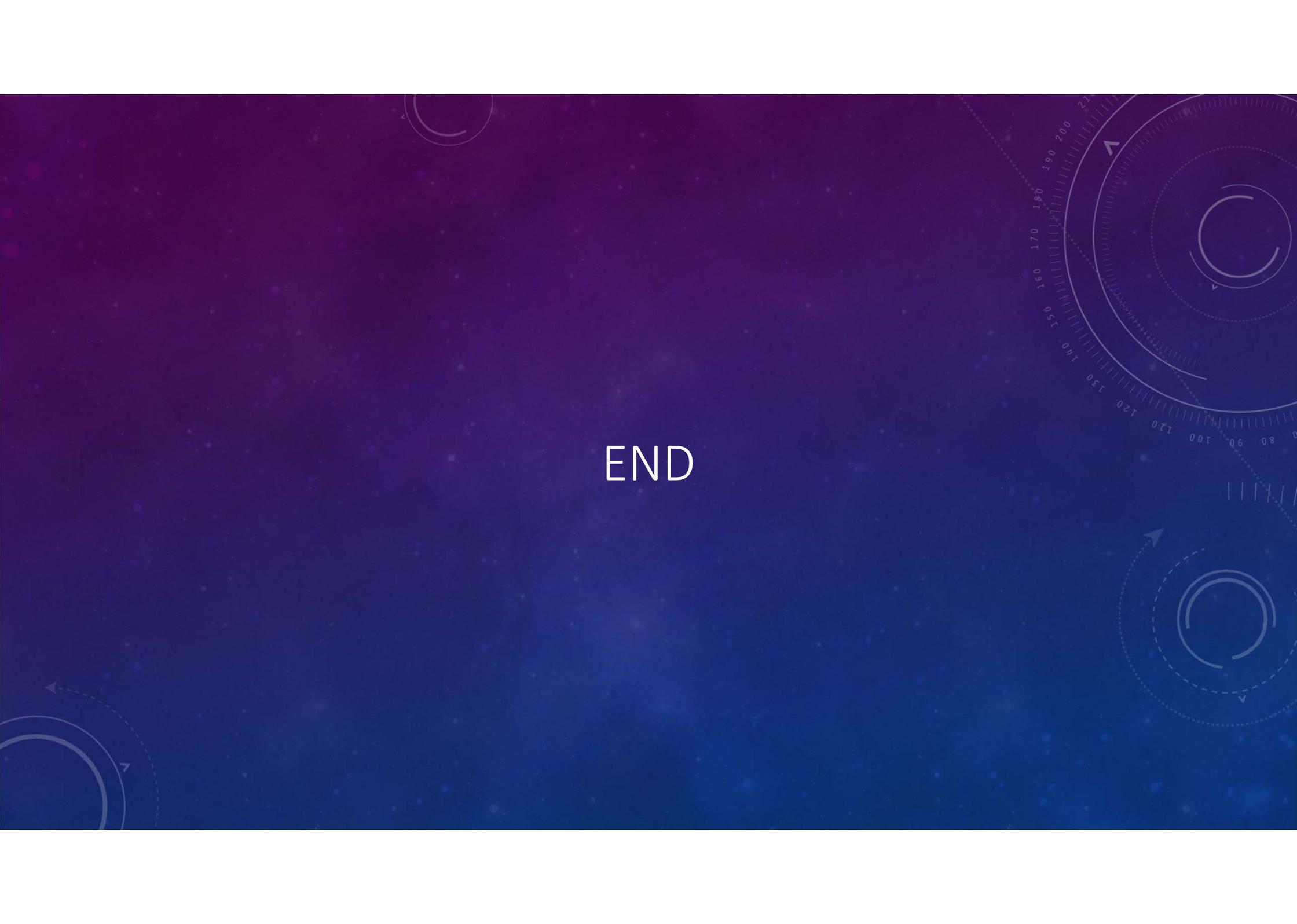
"SHOULD STATES SEND HUMAN TO THE MOON OR OTHER PLANET BY GOVERNMENTAL BUDGET?"

TEAM **YES**

A large, empty rectangular box with a white border, intended for the team that supports sending humans to the moon or other planets.

TEAM **NO**

A large, empty rectangular box with a white border, intended for the team that opposes sending humans to the moon or other planets.



END