

**MITCHELL INSTITUTE**  
for Aerospace Studies



**Military Human Spaceflight:  
A Key Component to American Space  
Superiority**

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## Overview

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- **Why it matters--Future American Space Superiority is at risk:**  
*China's PLA-led human spaceflight program is on path to achieve military dominance of lunar resources and access, leaving the world conceding to China's desired norms and standards*
- **What is needed--A new national vision with military human spaceflight as a national security imperative**
- **Who--The U.S. Space Force (USSF) is the right service to lead development of skills, tools, and concepts for manned Title 10 missions in space**
- **Where it will matter--The Moon is the tipping point, but USSF missions may range from LEO to lunar**
- **When should we start--USSF must start now to have capabilities a decade from now**
- **How should USSF start--Seize the initiative as commercial human spaceflight and space stations opportunities take shape**



# Strategic Vision: Human Space Exploration

*The universe is an ocean, the moon is the Diaoyu Islands, Mars is Huangyan Island. If we don't get there now even though we're capable of doing so, then we will be blamed by our descendants. If others go there, then they will take over, and you won't be able to go even if you want to. This is reason enough [to go to the moon].*

–YePeijian

Chief Commander and Chief Designer of the Chinese Lunar Exploration Program, 2017



*"It's on the to-do list; we haven't got there. Do we need to put human Guardians in space? It would be tragic if that didn't happen someday... We owe work on that."*

– General Shawn Bratton

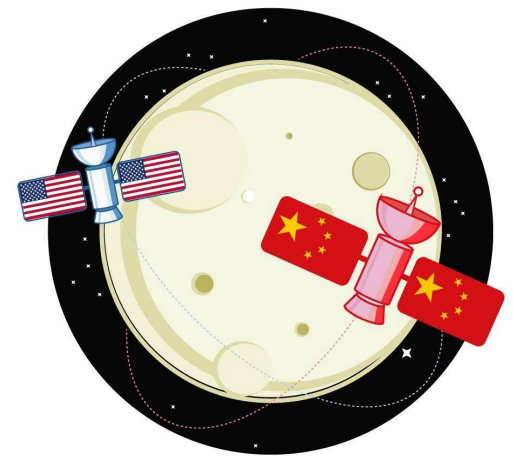
Vice Chief of Space Operations, USSF, 2026

China's space habitation vision drives a military foundation, a future underwritten by hard power



# The Modern-Day Space Race

- **Modern-Day Space Race Has No Clear Finish Line**
  - Enduring competition for long-term strategic positional advantage in space
- **Success Will Require Executing and Defending On-Orbit Activities**
  - Routine, unimpeded human transportation to space
  - Sustained Low Earth Orbit (LEO) to deep space logistics lines
  - Control of critical resources on lunar poles
  - Secure long-duration lunar-surface habitats and power systems
- **Space Race Success and Strategic Positional Advantage**
  - Delivers and solidifies global leadership
  - Define rules, norms, legal frameworks for space economy and exploration
- **Tipping Point: The Moon**
  - Anarchic nature of lunar territory
  - United States and China vying for positional advantage in key regions
  - China's record—hard power belligerence for territorial dominance
  - Lunar competition ripe for conflict



**Military human spaceflight will be key to future strategic positional advantage in space**



# United States' and China's Modern-Day Track Record

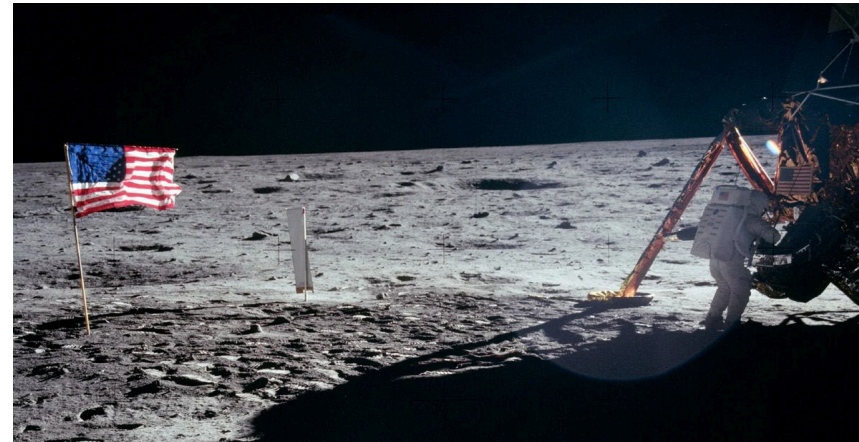
## • China: Consistency of Purpose and Military Led

- National vision and clear objectives, “The cosmos is the ocean”: occupy and control territory before competitors
- 1992-2022: Human spaceflight goals completed mostly on-time by PLA
  - Four military Taikonauts in space at all times inside Chinese Tiangong space station
- Military Taikonauts on Moon by 2030
- Double Tiangong size/capacity by 2035
- Military International Lunar Research Center near lunar south pole by 2035
- Chinese “silk road” through space underpinned by military hard power



## • United States: Inconsistent Policy, Budgets, Objectives with Civil-Military separation

- International Space Station retirement 2030--commercial space station replacement program continues to change and slip solicitation schedules
- 2004: Return to Moon announced for 2020
  - Artemis program lunar landing continues to slip— “By 2028”
- National policy does not link human spaceflight with national security



China treats space habitation as national security imperative, the U.S. has treated as science and prestige



# Emergent Truths of Human Spaceflight

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*The failure of the United States to articulate a consistent and focused national security imperative in space habitation has allowed China to make steady gains over time in the modern space race.*

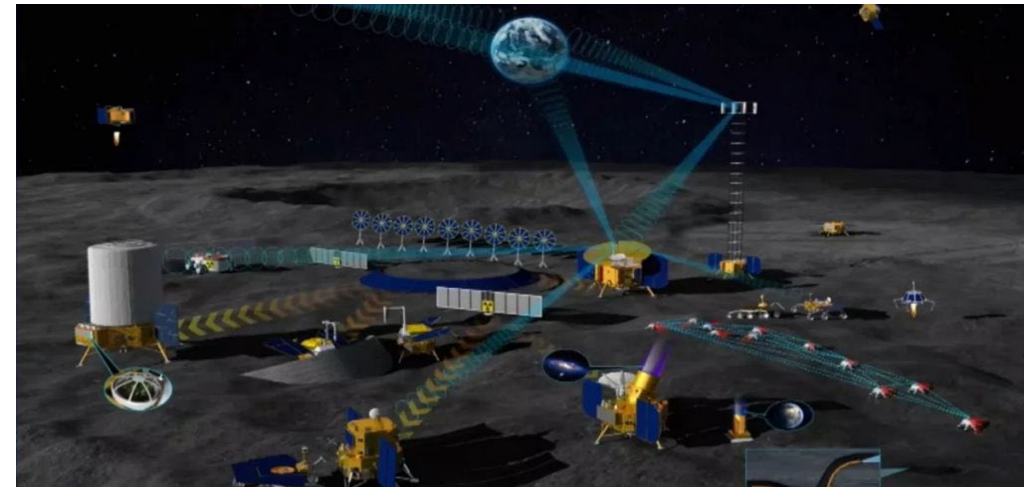
*China's military-led approach to space creates the strategic ambiguity and flexibility to rapidly militarize their human spaceflight program's "scientific" activities for power projection and other military objectives.*

- **Current Trajectory:**

- Predictable endgame—PLA dominance of lunar resources and access
- World left conceding to China's desired norms and standards

- **Required Counterbalance to lunar tipping point:**

- Human spaceflight and habitation must become focused national security imperatives
- Astronauts with Title 10 authorities to defend core interests are key to positive future



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**U.S. Space Force must be ready to provide national leadership Title 10 options for manned space operations**

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# Delivering a New National Security Imperative

- **Establish Strategic Direction For Military Human Spaceflight**
  - American superiority in space: “contributing substantially to the Nation’s strength, security, and prosperity”
- **Guardian Leadership: USSF is the only military service building space-minded warfighters from day one**
- **Future Space Superiority Requires Unmanned and Manned Elements—USSF will need both**
- **Build Guardian Skills, Tools, and Concepts for Title 10 Manned Missions**
  - Space Test Course (STC) can kick-start campaign of learning
- **Human Military Roles in Space: requirements ranging from space medical evacuation and rescue to securing lunar logistics lines**
- **Credible U.S. Modern-Day Space Leadership**



**Military human spaceflight must aim to secure American interests from LEO to the Moon**



# Considerations

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## • Strategic Opportunity

- Seize the initiative--EO on *Ensuring American Space Superiority* provides focused purpose and policy
- Guardian mindset/domain experts on orbital dynamics, micro-gravity, multi-body problems, EM spectrum, etc.

## • Partnership Opportunities

- Evolve Guardian internships/partnerships with NASA and industry to aim focus on national security
- Build partnerships to establish supporting roles to DoW

## • Resourcing Space Superiority Priorities

- Resourcing unmanned space superiority warfighting requirements must continue unabated
- “Do no harm” to unmanned requirements must be the overarching theme
- USSF must receive additive resources for any human spaceflight endeavors



# Recommendations Roadmap

**1. Bridge Civil-Military Gap and Establish National Security Imperative in Strategic Guidance**

**2. USSF Ownership of Requirements in Objective Force Roadmap**

**3. USSF Establish STC Follow-on Program: Guardian Human Spaceflight Test Campaigns**

**4. Scale STC Student Throughput and Infrastructure to meet emerging mission needs in orbit and the Moon**

**6-8. Congress Fund:**

- **NASA support to Military Human Spaceflight Program**
- **STC Follow-On Spaceflight Program**
- **USSF Commercial Space Station Residencies/Purchase**

**5. USSF Expand Guardian Career Broadening Opportunities with NASA and Commercial Space Station/Commercial Spaceflight industries**

**China's greatest advantage, and U.S. greatest opportunity, is consistency of purpose**



# Conclusions

- Virtual presence is actual absence
- China will conduct this competition with hard power
  - Military Taikonauts and infrastructure will provide PLA positional advantage
- Chinese space silk-road, sustained by PLA may eliminate U.S. influence in space exploration
- A U.S. military human spaceflight program brings focus and a national security imperative to space exploration
- USSF must pragmatically begin building a military human spaceflight program
  - Leverage STC follow-on, internships, and partnerships to cultivate body of knowledge/experience needed for the future operating environment



**Seize the initiative to gain a spacepower edge in the modern-day space race**



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