Special Report | January 6, 2026

AMERICA'S GOING BACK TO THE MOON. THIS TIME IT'S STAYING.

The executive order from US President Donald Trump rewrites the future of the commercial space economy.

"If we make a mistake, we may never catch up. We can achieve these timelines with the right commercial partnerships."
— Jared Isaacman, NASA Administrator

Executive Summary

On December 18, 2025, President Trump signed the most aggressive U.S. space policy in 50 years—and it's probably bigger than Apollo. The executive order sets four transformational targets:

- **Americans back on the Moon by 2028** (beating China's 2030 target)
- **$50 billion in private space investment by 2028** (nearly triple current annual rates)
- **A U.S. nuclear reactor operating on the Moon by 2030** (establishing permanent power infrastructure)
- **Permanent lunar outpost** with U.S. territorial presence through infrastructure control

Signed the same day astronaut-billionaire Jared Isaacman was sworn in as NASA Administrator, this order explicitly frames space dominance as essential to national security, economic prosperity, and geopolitical competition with China.

Is this achievable? Read our analysis and judge for yourself.

The Geopolitical Stakes: Why This Matters Now

This isn't just about exploration—it's about sovereignty.
China and Russia have announced a joint lunar nuclear reactor initiative targeting the mid-2030s. As former DOE Assistant Secretary Katy Huff warned: **"If China and Russia are the first to stake a claim for a lunar power plant, they could declare a de facto keep-out zone."**

Here's what most people miss: The Artemis Accords allow "safety zones" around operations. Whoever controls power infrastructure on the Moon effectively controls territorial presence. This isn't flag-planting—it's the foundation of lunar property rights for the next century.
The timeline is strategic: Trump's 2028 Moon landing beats China's announced 2030 target. The nuclear reactor by 2030 establishes permanent U.S. infrastructure before any competitor. Speed isn't just about pride—it's about setting the rules.

The $50 Billion Question: Can Private Capital Triple?

What the Order Demands

The executive order targets **at least $50 billion in private investment by 2028** while "increasing launch and reentry cadence through new and upgraded facilities, improved efficiency, and policy reforms."

The Market Reality

Here's the math that matters:

- Global space economy: **$613 billion** (2024)
- Current annual private investment: **~$9 billion**
- U.S. share of global investment: **52%**

A $50 billion target by 2028 means attracting $12-17 billion in additional annual private investment above baseline—essentially tripling current rates in three years.

Can It Be Done? Four Catalysts

1. Defense Demand as Anchor

The $25 billion Iron Dome for America missile defense initiative (Executive Order 14186, January 2025) provides government anchor contracts that de-risk private investment. When SpaceX or Blue Origin can count on defense procurement, venture capital follows.

2. Launch Cost Collapse

SpaceX's reusability revolution fundamentally changed investment economics. Cost-per-kilogram to orbit has dropped 90% since 2010. Venture capital is increasingly flowing to *applications* (satellite services, manufacturing, data) rather than infrastructure.

3. Dual-Use Technology

Growing investor interest in technologies serving both commercial and defense markets: satellite constellations for communications *and* missile tracking, manufacturing in orbit for commercial products *and* defense systems.

4. Commercial Station Transition

The International Space Station retires by 2030, creating a **$3-5 billion annual market** for commercial station operators. Multiple competitors are positioning for this procurement.

Bottom Line

The $50 billion target is aggressive but not impossible—*particularly* if Iron Dome for America procurement and commercial station contracts materialize as planned.

The challenge is the timeline. Achieving this by 2028 requires immediate regulatory reform and contract acceleration. Every month of delay compounds the difficulty.

Moon Landing by 2028: Racing the Clock—and China

The Political Timeline

The executive order commits to "returning Americans to the Moon by 2028 through the Artemis Program."

This deadline isn't arbitrary: The 2028 target beats China's announced 2030 landing and would occur during Trump's term (which ends January 20, 2029).

The Technical Reality

Internal SpaceX documents leaked in November 2025 reveal a timeline that doesn't align with NASA's schedule:

- **June 2026:** First orbital refueling demonstration
- **June 2027:** Uncrewed lunar landing
- **September 2028:** *Earliest* opportunity for crewed landing

NASA's own December 2023 assessment gave only a **70% probability** that Starship would be ready by February 2028—and a **30% chance of further delays**.

Translation: NASA is betting on technology that has never been demonstrated at the scale required, on a timeline that SpaceX's own internal documents suggest is unlikely.

Three Critical Bottlenecks

Orbital Refueling: Starship requires up to **12 refueling operations** in Earth orbit before proceeding to the Moon. This has never been demonstrated at scale. Each refueling is a potential failure point.

Heat Shield Reliability: Three of Starship's first five 2025 test flights resulted in upper stage loss during reentry. The vehicle must survive both lunar return velocities *and* Earth atmospheric reentry.

Contract Competition: Acting Administrator Sean Duffy announced in October 2025 that NASA would reopen the Artemis 3 lander contract to competition, citing SpaceX delays. Blue Origin's Blue Moon lander becomes the backup—but that contract hasn't been awarded yet.

Nuclear Power on the Moon: Infrastructure as Sovereignty

Why Nuclear Changes Everything
The executive order mandates "enabling near-term utilization of space nuclear power by deploying nuclear reactors on the Moon and in orbit, including a **lunar surface reactor ready for launch by 2030**."

This isn't optional. It's existential.

The lunar night lasts 14 Earth days. Solar power becomes useless. The most valuable water ice deposits exist in permanently shadowed craters that *never* receive sunlight—exactly where you need a reactor.

But here's the strategic insight most analysts miss: **Whoever controls power infrastructure controls territorial presence.**

You can't maintain a permanent base without reliable power. You can't extract resources (water, oxygen, metals) without industrial-scale energy. You can't support human habitation during two-week darkness without nuclear.

The nation that deploys the first working lunar reactor effectively controls that region of the Moon.

Can SpaceX Pull It Off?

SpaceX has proposed a "simplified mission architecture" to speed the timeline, but details remain classified. The company's track record shows it consistently misses initial timelines by 2-3 years—but eventually delivers.

The strategic question: Is it better to hit 2028 with higher risk, or accept a 2029-2030 timeline with greater confidence? The administration has chosen speed over certainty.

As NASA Administrator Jared Isaacman stated during his confirmation hearing: **"If we make a mistake, we may never catch up."**

THE TECHNICAL CHALLENGE

The Fission Surface Power (FSP) program specifications:

- **Power output:** 100+ kilowatts (enough to power ~80 American homes)
- **Mass:** Up to 15 metric tons
- **Operational life:** 10+ years
- **Launch target:** 2030

No nuclear reactor has ever operated on another celestial body. The original plan called for a 40-kilowatt reactor in the early 2030s. Acting Administrator Sean Duffy's August 2025 directive more than *doubled* the power target and pulled the timeline forward.

Expert assessment: Even achieving a terrestrial prototype of this scale within five years would be challenging. Lunar deployment adds radiation shielding, thermal management in vacuum, autonomous operation, and launch survivability requirements.

Why the Aggressive Timeline?

China and Russia are targeting the mid-2030s for their joint lunar reactor.

The first nation to deploy wins. Once you have power, you can:

- Establish safety zones (Artemis Accords allow this)
- Extract and process resources - Support permanent human presence - Claim de facto territorial control

This is the modern equivalent of building a fort. Presence creates sovereignty.

Assessment: The 2030 timeline is extraordinarily ambitious. Multiple commercial contractors (Westinghouse, Lockheed Martin, IX) and 50+ years of research provide a foundation—but execution risk is high. If successful, this becomes the single most important infrastructure investment in space history.

The ISS Replacement: A $5 Billion Market Opens

The Mandate

The order explicitly calls for “spurring private sector initiative and a commercial pathway to replace the International Space Station by 2030.”
The ISS has been humanity’s only permanent presence in space for 24 years. Its retirement creates the most significant commercial opportunity in Low Earth Orbit history.

The Competitors

Vast: Haven-1 (world’s first commercial station) targeting May 2026 launch; Haven-2 positioned as ISS successor

Axiom Space: First module docks with ISS in 2026-2027, gradual transition model; most NASA-integrated approach

Orbital Reef: Blue Origin/Sierra Space joint venture; Jeff Bezos’s hedge against Blue Moon timeline

Starlab: Voyager Space/Airbus/Northrop Grumman consortium; European partnership angle

What’s at Stake

The winner of this competition controls humanity’s next permanent presence in space—and a potential **$3-5 billion annual market** for: - NASA astronaut missions - Commercial astronauts and tourism - Pharmaceutical research in microgravity - Manufacturing (fiber optics, organs, semiconductors) - Media and entertainment production

Phase 2 CLD (Commercial LEO Destinations) awards expected early 2026 will define this market for a decade.

Acquisition Reform: NASA Becomes a Customer, Not a Builder

The Philosophical Shift

The order mandates NASA and Commerce Department reform their acquisition processes within **180 days**, with explicit preferences for:

- Commercial solutions as **“first preference”**
- Other Transaction Authority (OTA) and Space Act Agreements over traditional contracts
- Firm fixed-price contracts and as-a-service models
- Elimination of “unnecessary tasks” and workforce streamlining

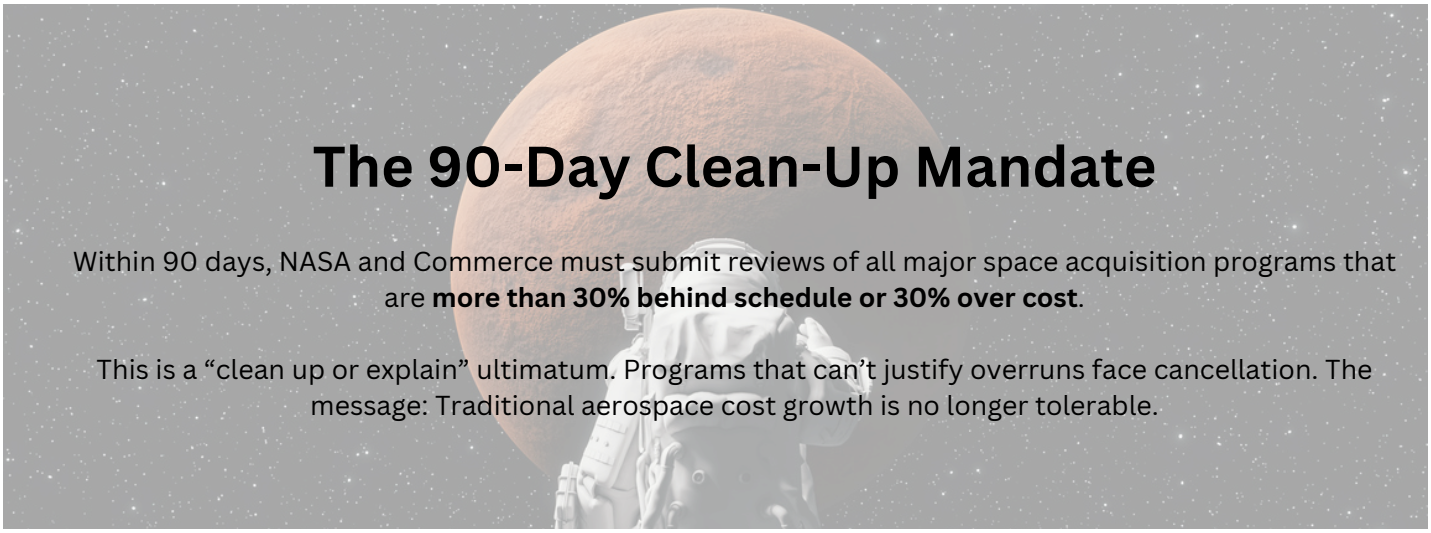
This represents a fundamental reorientation: **NASA transitions from builder to buyer, from operator to customer.**

What This Means for Industry

For established aerospace: The cost-plus contracting model that sustained Boeing, Lockheed, and Northrop for 60 years is officially dying. Fixed-price or nothing.

For commercial space: Sustained government demand—but pressure for faster, cheaper delivery. No more “development timelines.” You deliver or you’re replaced.

For investors: De-risked market. If NASA is committed to *buying* stations rather than *building* them, commercial providers have a guaranteed customer.



The 90-Day Clean-Up Mandate

Within 90 days, NASA and Commerce must submit reviews of all major space acquisition programs that are **more than 30% behind schedule or 30% over cost**.

This is a “clean up or explain” ultimatum. Programs that can’t justify overruns face cancellation. The message: Traditional aerospace cost growth is no longer tolerable.

Structural Changes: Speed Over Bureaucracy

National Space Council Eliminated

The executive order revokes Executive Order 14056 (December 2021) that governed the National Space Council. Coordination authority transfers to the **Office of Science and Technology Policy** under Michael Kratsios.

This consolidates policy coordination under a single office rather than a cabinet-level council—potentially faster decision-making, but less interagency visibility.

The bet: Speed matters more than consensus. A single decision-maker (Kratsios) can move faster than a council.

Space Traffic Management Privatization

Amendments to Space Policy Directive 3 (2018) remove the requirement that space traffic coordination services be provided "free of direct user fees."

This opens the door to **commercial space traffic management services**—a potential new market as orbital congestion increases. Companies like LeoLabs, Slingshot Aerospace, and Kayhan Space are positioning for this opportunity.

As the space economy grows, someone needs to manage 10,000+ satellites and prevent collisions. That "someone" can now charge for the service.

Investment and Business Implications

Immediate Opportunities

Nuclear Space Power: Companies with nuclear microreactor expertise (Westinghouse, BWXT, Lockheed Martin, IX) face accelerated procurement. First movers with flight-ready designs win.

Commercial Stations: Phase 2 CLD awards in early 2026 will define the post-ISS market for a decade. Vast, Axiom, Blue Origin, and Voyager/Airbus are in active competition.

Lunar Infrastructure: Power systems, habitats, resource extraction equipment (ISRU), and communications infrastructure for the permanent outpost. The 2028-2030 timeline compresses procurement cycles.

Defense Integration: Iron Dome for America creates substantial demand for space-based sensing, manufacturing, and launch. Dual-use technologies (commercial + defense) see premium valuations.

Launch Services: Higher cadence requirements favor SpaceX and emerging competitors (Blue Origin, Rocket Lab, Relativity). Traditional players (ULA) face margin pressure.

Key Risks

Budget Uncertainty: The administration has proposed cutting NASA's 2026 budget by ~24% ($24.8B to $18.8B), with science programs facing up to 47% reductions while Artemis remains protected.

Congressional resistance may preserve exploration priorities, but non-exploration programs (Earth science, astrophysics) face severe cuts. This creates political risk.

Timeline Slippage: Every major Artemis milestone has been delayed. The 2028 deadline may prove aspirational. If SpaceX misses orbital refueling demonstrations in 2026, the entire timeline cascades backward.

Political Continuity: Executive orders can be revoked by future administrations. Long-term investments (10+ year timelines) require legislative backing, not just presidential directives.

China Acceleration: If China's Long March 10 rocket and lunar lander development accelerates, they could beat the U.S. to 2028-2029. The geopolitical embarrassment would be significant.

THE IMPLICATIONS

For Investors

The $50B target creates a capital feeding frenzy into launch, stations, lunar infrastructure, and nuclear power. Position now or miss the procurement cycle.
The space economy is no longer speculative—it's anchored by defense contracts, commercial station awards, and lunar infrastructure timelines. Early movers in dual-use technologies (commercial + defense applications) will see premium valuations.

For Industry

You have three years to position for the biggest space procurement cycle since Apollo. The winners will define the commercial space economy for decades.
Fixed-price contracts and "deliver or be replaced" procurement means the traditional aerospace playbook is dead. Agility and execution speed now matter more than legacy relationships.

For Policymakers and Governments

China is watching. Russia is watching. Europe is watching. Whoever gets there first doesn't just plant a flag—they set the rules for lunar resource rights, territorial claims, and the framework for space commerce.
The Artemis Accords framework means early infrastructure deployment creates de facto territorial control through "safety zones." National space strategies are no longer optional—they're essential to economic and geopolitical competitiveness.

For Cities and Regions

The space economy isn't just happening in orbit—it's creating ground-based opportunities in manufacturing, research, workforce development, and economic clusters.

Regional space strategies are emerging as competitive advantages:

Launch Infrastructure: Regions with spaceports (Florida, Texas, California, Virginia, Alaska) are capturing launch operations, payload integration, and support services. Brownsville, Texas has transformed around SpaceX's Starbase facility.

Manufacturing Clusters: Space-grade manufacturing (precision components, materials science, propulsion systems) is concentrating in aerospace hubs. The $50B investment wave will accelerate this clustering.

Research & Development: Universities and national labs with space expertise are becoming magnets for talent and private investment. Partnerships between NASA centers and regional institutions create innovation ecosystems.

Workforce Development: The talent gap is acute. Regions investing in aerospace engineering programs, technical training, and STEM pipelines will capture disproportionate economic benefit.

Example—Fairfax County, Virginia (CityAge ORBIT partner): Positioning as a space economy hub through proximity to federal decision-makers, defense contractors, and satellite operators. Space companies need both technical capability *and* policy access.

The opportunity: Cities and regions that develop coherent space economy strategies—connecting infrastructure, workforce, R&D, and industry—will capture billions in investment and high-wage jobs over the next decade.

The space economy is projected to reach **$1.8 trillion by 2035**. The question for regional leaders: Where will your economy fit in this transformation?

Conclusion: The Launch of the Global Space Race

This isn't a policy document—it's a launch.
"Ensuring American Space Superiority" establishes the most aggressive U.S. space framework since Apollo. It explicitly frames space as a domain of strategic competition with China, commercial opportunity, and technological demonstration.

Three Principles Define the New Framework:

1. Speed Over Perfection
Tight timelines (2028 landing, 2030 base, 2030 nuclear reactor) prioritize being first over being thorough. The administration is betting that "good enough, on time" beats "perfect, late."

2. Commercial Primacy
Government as customer rather than operator. NASA buys services, doesn't build stations. This creates sustained demand for commercial providers—but also unforgiving performance requirements.

3. Infrastructure as Sovereignty
Nuclear power, permanent bases, and traffic management establish presence. And presence establishes norms, territorial claims, and geopolitical leverage.

The Race Is On

The space economy just received its marching orders. Whether every target is met matters less than the capital, policy momentum, and commercial infrastructure they mobilize.
As NASA Administrator Jared Isaacman said on his first day: **“We can do this.”**

The facts are clear: America is back in the space race—and this time, the stakes may be even more significant than Apollo.

CityAge is launching ORBIT as a campaign to examine the broad economic, geopolitical, and technological implications of the commercial space economy. We welcome feedback, updates, and competing analyses.

You can register for the event, or joing the network, at www.ORBIT.Cityage.com

Contact: Miro Cernetig, CEO, CityAge Media
Email: miro@cityage.com | info@cityage.com
Event: CityAge ORBIT | February 27, 2026 | Washington, DC

Miro Cernetig is CEO of CityAge, a network of 30,000 leaders building the urban planet. Miro is a former national and foreign correspondent for The Globe and Mail, and his documentary film work has been broadcast on networks around the world. This analysis is not financial or investment advice. Always do your own due diligence.