

Written testimony for the Space and Aeronautics Subcommittee Hearing on “Leveraging Commercial Innovation for Lunar Exploration: A Review of NASA’s CLPS Initiative”, 1 April, 2025. Stephen Altemus, President and CEO, Intuitive Machines

Chairman, Ranking Member, and distinguished Members of the Subcommittee:

Thank you for the opportunity to testify today. I commend this committee for its foresight in creating and funding NASA’s Commercial Lunar Payload Services initiative and how it can serve as a blueprint for America’s future in space. CLPS drives American entrepreneurial innovation, our best advantage in the space race against China. Our success is a direct result of your support.

Intuitive Machines grew from a small think tank into a national asset in six years, with CLPS as our catalyst and the Moon as our focus. We went public two years ago; a year later, we became the first commercial company to land on the Moon. The following year, we did it again—both CLPS missions landing at the Moon’s inhospitable south pole—a strategic location avoided by previous missions because of risk—yet targeted for American outposts to use the water below the surface.

Through these first two missions, we pioneered the world’s first deep-space propulsion system capable of using in-space resources for fuel. We created lightweight composite fuel tanks, adapted AI for autonomous spaceflight, developed cutting-edge navigation capabilities, and validated our lunar data network, the world’s most capable deep-space communication and navigation network.

These validated capabilities are more than shots on goal. We, and the CLPS initiative, fundamentally disrupted the economics of landing on the Moon through fixed-price performance contracts. CLPS demonstrates unprecedented value and efficiency to commercial, NASA, and other government customers.

Today, our company is accelerating with a robust financial foundation and diverse customers in different regions of space. If this is how far we can advance American capabilities in six years, let’s ignite action that defines our next generation.

Now is the time to harness American ingenuity with initiatives like CLPS, so the United States can compete in this next-generation space race.

China aims to become the world’s top space power by 2045, using space to strengthen its military and economy. If we don’t act decisively, we risk losing essential opportunities and advantages.

The American entrepreneurial spirit is our greatest ally in outpacing their ambition. Intuitive Machines and CLPS have demonstrated how commercial ingenuity can accelerate national capabilities, setting the stage for deliberate and strategic lunar industrialization.

To fully capitalize on this approach, we must evolve our public-private partnership models across government to reward performance, incentivize rapid progress, and enable private industry to innovate with supportive bureaucracy.

In doing so, CLPS 2.0 may create a national lunar industrialization initiative that aligns rewards and larger block buys with a more frequent cadence for delivering infrastructure and services that define how to live and work on the Moon. Infrastructure and services aren't new ideas; they're utilities we take for granted on Earth, like communications networks, navigation systems, energy facilities, larger-scale delivery systems, and resource extraction technologies that can infuse resources and commodities into our economy. All of these improvements strengthen our national accessibility for science opportunities on and around the Moon.

While NASA-driven lunar exploration through CLPS and Artemis has advanced commercial capabilities, its full potential across broader government objectives remains underutilized. Expanding contracts to serve multiple agencies—such as national security and intelligence—could maximize efficiency, reduce costs, and enhance innovation through shared investments and multi-use capabilities.

I'll give you an example. Right now, NASA's \$4.82 billion Near Space Network Services contract calls for Intuitive Machines to provide ground systems and a lunar constellation of satellites for communications and navigation services supporting the Artemis program—starting next year.

These lunar satellites can collect valuable information for national security—not just communications for Artemis. As a country, we aren't bridging the gap between NASA, DoD, and the commercial industry.

With the right policy, bridging this gap will avoid duplicating costly investments and integrate these already-funded assets into national security space initiatives without needing separate, redundant programs.

As Chairman Babin and others have noted, closer collaboration between NASA and the National Security Space enterprise serves multiple important national objectives while leveraging funding and support across government agencies to float all boats and fast-track results.

Change is never easy. It's fraught with difficulty—but the credit belongs to the one who is actually in the arena. Chairman, Ranking Member, and distinguished Members of the Subcommittee, we are in the arena, and America has the opportunity to lead in the next great frontier. Through your leadership, Intuitive Machines has taken bold steps, demonstrated new technologies, and forged a path forward. Now, we urge Congress to act with the same boldness. Expand CLPS 2.0; align resources across agencies to foster collaboration that seizes this moment and cements America's leadership in space for generations to come.

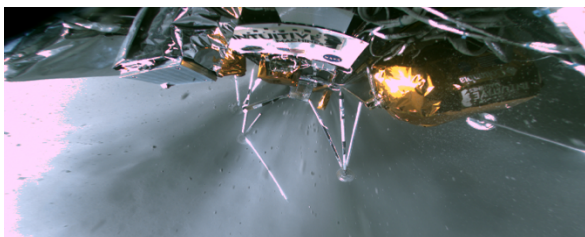
Supplemental Information:

Intuitive Machines Overview: Intuitive Machines is a publicly traded space infrastructure and technology company operating an end-to-end lunar program with a regular cadence of missions through our NASA CLPS contracts. The infrastructure, expertise, and proven capabilities required for lunar missions inherently support a wide range of space operations. Offering our validated technologies and capabilities is a natural progression into other markets and forms the foundation of our three pillars of space commercialization – 1) Delivery Services, 2) Data Transmission Services, and 3) Infrastructure as a Service.



IM has demonstrated from operating two lunar missions the essential capabilities necessary for sustained and resilient operations across all three service pillars.

- The first is extensible and reliable space communications. This secure and continuous connectivity is essential for transmitting data, coordinating missions, and making real-time decisions in flight and on the surface of any celestial body. All IM-2 transmissions came through our commercial Lunar Data Network (LDN).
- The second is position navigation and timing (PNT). Just as GPS enables reliable navigation on Earth, precise and repeatable PNT is required to support flight, orbit, and landing operations; surface mobility; and resource utilization. For example, IM successfully performed orbit determination of the IM-2 lander with our LDN independently of the Deep Space Network.
- The final capability is autonomy and artificial intelligence. Given the distance and complexity of deep space operations, autonomy and AI systems play a critical role in mission success. The IM-2 lander autonomously performed a precise Lunar Orbit Insertion while the Moon blocked direct communication with Earth.



We got to this point because we chose to tackle one of the hardest challenges first—landing on the South Pole of the Moon. Now, the technologies and expertise that built our initial lunar program are ready to expand our reach into new markets and customers.

Commercial Lunar Payload Services (CLPS) 2.0: Expanding the Lunar Economy

Overview

The Commercial Lunar Payload Services (CLPS) program has revitalized the United States' ability to land on the Moon by fostering partnerships with private companies to deliver scientific and technology payloads. Currently, the CLPS catalog features 13 companies competing for small cargo landing services. As we approach the end of the initial contract phase, it is time to refine the program for its next iteration - CLPS 2.0.

Public private partnerships focused on launch services have brought commercial business back to the US while also giving the federal government more purchasing power for its missions. CLPS 2.0 should be formulated to do much the same for national policy objectives and economic interests on the Moon.

Specific Recommendations for CLPS 2.0

1. Establish a Regular Cadence of Missions

It is important to establish a regular cadence of missions which deliver expanded capability in increments, keeping the US at the forefront in the space race with China. A regular mission cadence ensures commercial companies, NASA, and the Space Force are continually learning about the cislunar environment and engineering the systems required to establish a sustainable lunar economy. There is no substitute for experience in the operational environment.

2. Implement Block Buy Contracts

To streamline operations and reduce costs, NASA should adopt a "block buy" approach, awarding two or more missions per task order rather than one at a time. This strategy will provide efficiencies in manufacturing and procurement, allowing for better resource allocation and quicker development timelines for multiple landers. It also helps to keep the cadence of mission high. CLPS 2.0 might also pay for some capability development costs beyond just paying for services on one-off task orders. This could be part of block buys as it amortizes the cost across more than one mission. NASA-funded capabilities such as "survive the night", precision surface navigation, or other risk reduction demonstrations for new classes of service can improve reliability for all providers.

3. Include Heavier Cargo Class Missions

The initial CLPS vendors have developed and demonstrated an incredibly efficient, lower cost capability to land on the moon. This is a testament to the power of U.S. commercial innovation. Heavier cargo-class landers derived from current CLPS landers can be developed more affordably than "down-scoping" a cargo variant from a human lander system. Following successful readiness demonstration flights, these more capable cargo-class landers will carry heavier pieces of infrastructure for sustained presence on the moon that can advance US capabilities and serve as logistics resupply

transportation in larger increments. CLPS 2.0 missions in this model can preposition essential equipment for resource utilization and extended human operations.

4. Include Infrastructure Providers

To further enhance lunar capabilities, NASA should include infrastructure providers in the CLPS 2.0 catalog. By infrastructure, we mean development of enabling capabilities such as mobility, power, communications, positioning and timing, Earth return, excavation and construction, logistics, and in-situ resource utilization (ISRU). Future awardees should be evaluated not only on their ability to land on the Moon, but also to provide critical infrastructure for the future lunar economy. This will be a benefit to the science community, to the Artemis program, and to future commercial operators.

5. Make CLPS Available Across Government

Intuitive Machines enjoys our working relationship with the Science Mission Directorate (SMD) and the established CLPS program team. CLPS 2.0 should not have major changes to that management structure. However, the Space Technology Mission Directorate (STMD), Exploration Systems Development Mission Directorate (ESDMD), and other government agencies should also employ CLPS task orders to accelerate their own technology development and capability deployment in an affordable manner. This is in the language for the 2025 NASA authorization, but we should see more direct tasking from other NASA directorates and national security space outside of the major mission task orders from SMD.

Such an approach can also take advantage of increasing interest from states, such as Texas and Florida, that are providing grants and matching funds for space exploration and economic development initiatives. The combination of dual-use technologies, increased certainty for CLPS providers of a high mission cadence, and matching funds across federal and state governments will double or triple NASA's purchasing power for lunar operations.

6. Consider Past Performance

Only four of the original 14 companies in the current CLPS catalog (Intuitive Machines, Firefly, Astrobotic, Draper/iSpace) have won task orders to date. To stimulate competition and improve performance, NASA should evaluate past in future awards. Companies that fail to secure tasks either must become competitive or be removed altogether. The US should reward success and focus on expanding lunar industrialization to overcome China's increasingly capable lunar surface program.

Conclusion

As the Artemis program faces budgetary challenges and schedule delays, a renewed commitment to CLPS 2.0 can maintain engagement among stakeholders, including the public, scientists, Congress, and industry. By adopting these recommendations, NASA can ensure that the CLPS program continues to play a pivotal role in lunar exploration and a sustainable presence on the Moon.