



## INSIGHTS

### **The Next Space Race: Private Rocket Titans, Payload Delivery And Smart Satellite Systems**

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A new space race is taking flight. The pivoting of private rocket providers who are not getting their share are planning to pounce, payload systems are retooling, and new smaller and smarter satellite systems promise widespread change in space's industrial base, which will affect government and civilian entities involved in military and defense, communications, health, science and interplanetary travel. In this exploration of "the final frontier," climate and weather equipment companies surely will be lining up to present their bold priorities as well.

Government and defense agencies and the private sector are working together diligently, as new providers are replacing the names Atlas, Saturn and STS from generations ago and launches for new payloads are becoming more commonplace. Companies are investing heavily in space and that is reflected by new facilities, investment in technology, and the development of public/private partnerships.

Congress is addressing some of these needs in the current budget cycle; one part of NASA's approved fiscal year 2022 budget as passed in March is more than \$24 billion and its programs are growing.

Government agencies including NASA and the National Oceanographic and Atmospheric Administration are not waiting to prepare for and respond to an unknown future. Significant investments are being made to track climate change and environmental needs and to prepare mankind's responses to natural disasters with resiliency and sustainability. Satellites even are tracking asteroids and other deep-space threats.

As asset security and system reliability become paramount, future programs will rely on partners who can build reliable systems, which

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remain safe from outside threats. What is clear is that military and industrial communications and network transmissions to and from space across the wide spectrum of governmental agencies and their private contractors must be secure against espionage and threats from national adversaries. U.S. Space Command Lieutenant General John Shaw has called cyberattacks a “key ‘threat vector.’”

With the conflict in Ukraine, the role commercial communications satellites are playing in the theater exhibits how critical reliable and hack-proof communications systems are, as evinced by Russian technology going dark and quiet.

Here at home, the U.S. Space Command, Space Force and the intelligence community are increasingly relying on the private sector to take the lead on research and innovation to advance our country’s technical capabilities and defensive posture. In a recent conversation with *Wired*, Shaw spoke of global allied partnerships and the efforts to negotiate international rules for operations in space.

Shaw has also argued that the “U.S. military should embrace and treat space as an ‘area of responsibility,’ a territory that needs to be maintained and defended, not merely traversed by spacecraft.” Referring to Space Command’s efforts to share its latest accomplishments in space, he encouraged readers to [visit Space-Track.org to stay current](https://www.space-track.org).

We’ve seen bad actors jam and hack communications satellites, try to take out power grids, close down banks for hours or days, and delay shipping commerce and disrupt other vulnerable essential systems. Even cloud-based network threats are on defense leaders’ minds, as more savvy and aggressive means are developed. If not kept in check, these hostile actions can paralyze nations.

## **Public-Private Partnerships**

Partnerships between the U.S. government and domestic partners and allies will further ground and space-based missions, while maintaining our national independence. The delivery of payloads and personnel to and from the International Space Station – something Russians repeatedly threatened to curtail – will increasingly become the job of private-sector partners.

The implications are clear. More and more partnerships between different governmental agencies and the private sector, funded by institutional venture partners and solicited awards, are taking responsibilities once held by federal programs and agencies. As government investment in space programs is reduced, the ranks of space program-related personnel are being augmented by the highest of trained private sector experts. It’s actually an efficient move; the government is able to take advantage of economies of scale by capitalizing on the most learned and well-established industry and private sector entities involved.

Organizations hoping to partner with the government or space and aero industry base providers need allies versed in this sector. Lawyers and lobbyists with key agency and government experience can help draft the strategies most critical to securing winning partnerships in pursuit of this new frontier.

The range of civilian sectors poised to benefit from this 21st Century

space race is as vast as it has ever been in our history. The pipeline of government funding and business development opportunities promises to create lasting opportunities for organizations both entrenched in space programs and new to the U.S. aerospace sector. Seasoned government relations professionals, procurement specialists and engaged lawyers can assist companies line up for key contract positions.

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