

Next Generation Space Defense

MILSATMAGAZINE

January 2025



Space Systems Command
National Security Launch:—
GPS III Expedited Launch

**ACHIEVE
SPACE & SPECTRUM
SUPERIORITY**

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**SATCOM, EW/SIGINT
SDA & GEOINT
IN ONE VIEW**

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Dispatches

Anduril 4

Blue Halo..... 4

BlackSky + USSF 5

L3Harris..... 5 + 7 + 11

Slingshot Aerospace 6

BAE Systems..... 7

Rocket Lab 8

Blue Origin 9

Lockheed Martin 10

Kratos Defense & Security Solutions, Inc...... 12

Aerovironment..... 12

Features

Space Systems Command Briefing: SSC Looks Ahead..... 14
Author: Lieutenant General Philip Garrant, SSC Commander

DISA OCONUS..... 20
Author: Marco A. Villasana Jr.

Changing Mindsets On Government Satellite Programs 22
Author: Piers Olsen

**Commentary: FNM Group—Technological Innovations Of
Advanced Drone Systems** 24

Advertisers

iDirect Government (iDirectGov) 3

Integrasys 1

SmallSat Europe 2025 25

SmallSat Symposium 2025 27

Space Foundation 13

MilsatMagazine is published 11 times per year by SatNews Publishers, 800 Sierra Way, Sonoma, California — 94576 — USA
Phone: (707) 939-9306 / Fax: (707) 939-9235
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YOUR STRONGEST ALLY IN THE ELECTRONIC WARFARE BATTLESPACE

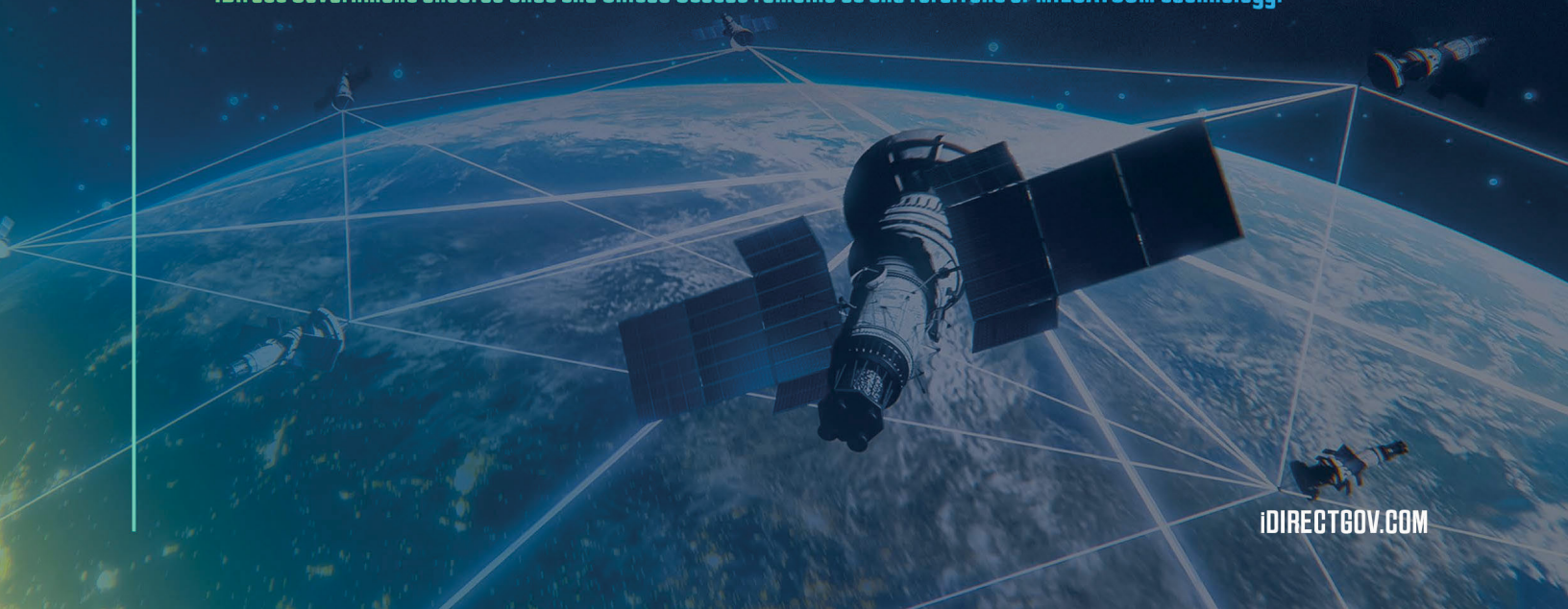
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DISPATCHES

Anduril Awarded Defense Production Act Investment To Expand Solid Rocket Motors Industrial Base



Anduril Industries, a non-traditional merchant supplier of *Solid Rocket Motors (SRM)*, has been awarded \$14.3 million by the Department of Defense under *Title III of the Defense Production Act (DPA)* to expand the SRM industrial base.



USS John Paul Jones launches a Standard Missile-6 during a live-fire test. Photo: U.S. Navy (via DoD).

for programs of record and other large-scale weapons, including the [U.S. Navy's Standard Missile-6 \(SM-6\) program](#).

This funding builds on Anduril's initial \$75 million private capital investment. This combination of private and public resources reflects a shared commitment to addressing America's urgent need for scalable, high-performance rocket motor production, and it clearly establishes Anduril as the new entrant best positioned to deliver full-rate SRM production capacity on a rapid timeline.

Strained munitions production underscored by recent global conflicts has led Congress and the Department of Defense to prioritize strengthening the SRM industrial base. This U.S. government investment is compounded by our \$75 million investment to produce large volumes of SRMs at reduced costs.

At the company's facility in McHenry, Mississippi, Anduril is using this DPA Title III investment to develop and qualify next-generation SRMs that demonstrate its innovative manufacturing technologies, like bladeless speed-mixing, single-piece flow, and advanced manufacturing technologies. This funding will also bolster Anduril's existing work to design, build, and test second-stage rocket motors

BlueHalo awarded \$49.9 million NIWC-Pacific contract for UAS EW sensor systems



BlueHalo has been awarded a five-year contract valued at \$49.9 million by the **Naval Information Warfare Center (NIWC) Pacific** — under this contract, BlueHalo will deliver hardware, materials and components, engineering services, and integration and operational support to the U.S. Navy and U.S. Special Operations Command (USSOCOM) for *Modular Payload compliant Electronic Warfare (EW) sensors* onboard multiple *Uncrewed Aerial Systems (UAS)*.



BlueHalo will support the design, upgrade, testing, delivery, and evaluation of complex sensor systems and their integration into various UAS platforms as part of the NIWC Pacific's work to sustain sensor operations with repair and replacements and train operators on the use of these sensor systems.

BlueHalo has provided sensor systems deployed in a variety of platforms supported and maintained by NIWC Pacific and fielded by U.S. government customers. Enabled through both a *modular open system approach (MOSA)* and *Sensor Open Systems Architecture (SOSA)*, these sensors have been integrated into multiple programs, including the *Group 3 Unmanned Aerial System (G3UAS)* program, the **USSOCOM Multi-mission Tactical Unmanned Aerial System (MTUAS)** program, and *Mid-Endurance Unmanned Aerial System (MEUAS)* in support of the *Joint Threat Warning System (JTWS)* Program Office.

"BlueHalo continues to deliver inspired engineering and tactical solutions to help our Nation stay ahead of global threats," said **James Batt**, BlueHalo Chief Growth Officer. "NIWC Pacific has relied on our EW sensors to support mission success for more than 15 years. This contract underlines the confidence customers have in BlueHalo to field the very best capabilities when it matters most."

"EW sensor integrations can be incredibly complex—spanning multiple airframes, information infrastructures, and domains to meet multiple mission needs," said **Mary Clum**, BlueHalo Products & Space Systems Portfolio President. "With our technical expertise and superior EW systems, BlueHalo provides customers with the modularity, scalability, and interoperability necessary to support a variety of platforms and configurations."

DISPATCHES

BlackSky wins USSF rapid procurement contracts to support TacSRT missions



BlackSky Technology Inc. (NYSE: BKSJ) has won multiple rapid procurement contracts for its high-margin, core analytics services through the U.S. Space Force's online Global Data Marketplace (GDM) supporting a variety of Tactical Surveillance, Reconnaissance and Tracking (TacSRT) missions.

The GDM has supported Space Systems Command's TacSRT pilot program and is designed to rapidly provide U.S. military combatant commands with access to insights for critical areas of interest worldwide.



The competitive, short duration TacSRT contracts team up multiple commercial data providers to cover specific requests for real-time operational planning products offering insight into global trends and events from violent extremism to humanitarian and disaster response as well as identification of potential threats.

"One year in operation, this novel marketplace increases speed and accessibility to BlackSky's reliable high-cadence, low-latency dynamic monitoring capabilities," said **Brian O'Toole**, BlackSky CEO. *"BlackSky's momentum with these quick-turn contracts represents a significant structural demand signal from a key customer for operationally relevant space-based products. BlackSky has demonstrated repeated success in delivering tailored products featuring our automated AI-driven analytics to meet a diverse set of complex, time-sensitive civil and military tactical SRT missions around the world,"* said O'Toole. *"The fast-paced, short period of performance aligns with our strengths: rapidly delivering actionable insights from our core product offerings that require minimal integration, lowering customer acquisition costs and accelerating development of new technology."*

U.S. Space Systems Command selects L3Harris to design resilient GPS satellite concepts



L3Harris Technologies (NYSE: LHX) has received a contract from the U.S. Space Force's Space Systems Command to design concepts for Phase 0 of the Resilient Global Positioning System (R-GPS) program.

The R-GPS program is a procurement of cost-effective small satellites that will augment the existing 31 satellite GPS constellation providing resilience to military and civil GPS users. Space Force plans to produce and launch up to eight satellites to address jamming, spoofing and more permanent disruptions.

L3Harris is the only company to provide **navigation technology** for every U.S. GPS satellite ever launched, in addition to designing and building critical elements of the control segment, monitor station receivers and user equipment. This mature technology provides the foundation of the L3Harris R-GPS solution.

L3Harris' investment in transformational PNT technology uses commercial form factors and interfaces for a modular, scalable solution supporting Space Force needs. L3Harris is also collaborating with the Space Force as the prime contractor on the experimental **Navigation Technology Satellite-3** program to develop cutting-edge technology and deliver on accelerated development timelines.



Artistic rendition of the Navigation Technology Satellite-3 on-orbit. Image is courtesy of AFRL.

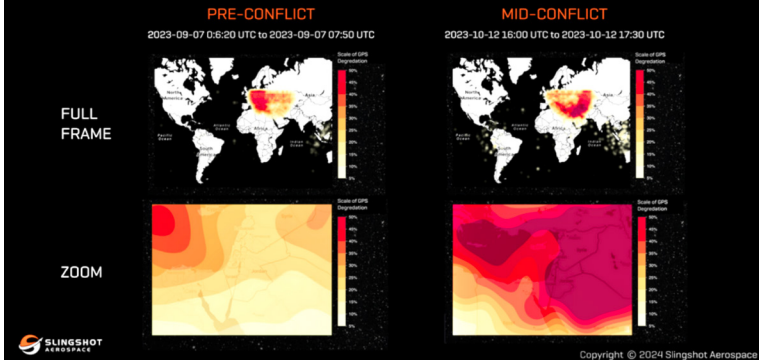
"We are answering the call to protect and defend national security interests by developing and deploying reliable and robust GPS technologies crucial to the warfighter and the global populace," said **Ed Zoiss**, President, Space and Airborne Systems, L3Harris. *"We will leverage our five decades of experience as a key mission partner providing GPS to deliver a more resilient Positioning, Navigation and Timing (PNT) infrastructure."*

DISPATCHES

Slingshot Aerospace to provide tech to USSF to detect GPS jamming + spoofing threats

SLINGSHOT-DETECTED GPS DEGRADATION OVER ISRAELI-PALESTINIAN CONFLICT ZONE

Images from Slingshot Aerospace's GPS interference detection & geolocation software show increased jamming over Palestine.



Slingshot Aerospace, Inc. has been awarded \$1.9 million from the United States Space Force's (USSF) Space Systems Command (SSC) to further develop Slingshot's existing GPS jamming and spoofing detection, as well as more precisely geolocate the sources and predict patterns of interference.

Intentional GPS spoofing—a malicious technique that manipulates GPS data in order to skew the geolocation of an object—and GPS jamming are used across conflict zones to reduce the effectiveness of combatant technology and often foreshadow future threats to national security.

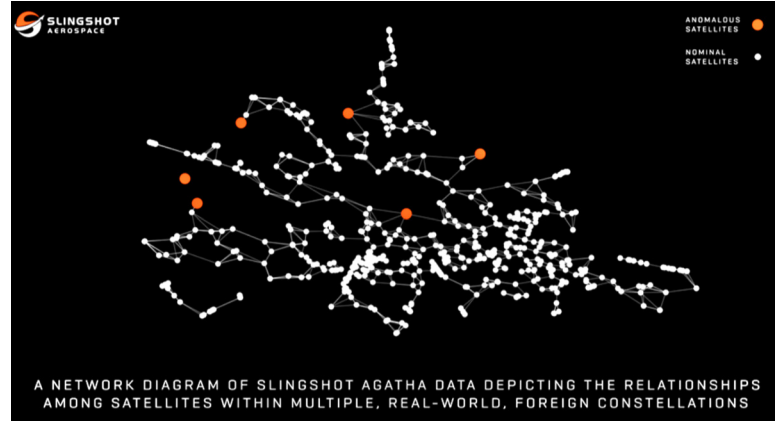
The new program, PNT-SENTINEL (Positioning, Navigation, and Timing – Secure Electronic Navigation Threat Intelligence and Location), provides Slingshot new funding to enhance its already operational technology by incorporating AI and predictive analytics to more rapidly disseminate insights to warfighters and support faster, more informed decision making.

The PNT-SENTINEL contract was awarded as a *Small Business Innovation Research (SBIR) Phase 2* contract by **SpaceWERX**, a unique space-focused division within the innovation arm of the U.S. Air Force, **AFWERX**. SSC awarded Slingshot a \$1.9 million Phase 1 contract to develop its initial GPS jamming detection capability called **DEEP (Data Exploitation and Enhanced Processing)** in October of 2021.

The technology produced as a result of the DEEP contract provides the foundation for PNT-SENTINEL and is currently being used by the USSF to detect GPS jamming and ground-based interference sources as they relate to ongoing conflicts, potential future conflict zones, and counter-terrorism efforts.

Today's global community relies more than ever on the signals from **Global Navigation Satellite Systems (GNSS)**, which are satellite constellations that provide global PNT services. This includes the U.S. GPS system, the European Galileo system, and more. By interfering with those signals, bad actors can hamper satellite operations over a certain region. This interference also impacts ground- and air-based operations, including crewed aircraft, drones, and precision-guided munitions—and disrupts critical services for everything from troops on the ground to commercial airline operations and passenger vehicle navigation.

As part of the contract, Slingshot will leverage its recently announced AI model called Agatha, which helps identify anomalous spacecraft within large satellite constellations, to further explore, develop, and integrate cutting-edge AI into PNT-SENTINEL. By layering AI into Slingshot's current technology, it will become more robust and automated in its ability to detect and flag jamming and spoofing threats, as well as differentiate between unintentional or anomalous interference and nefarious acts.



Other enhancements to Slingshot's capabilities include:

- **Implementing pattern of life algorithms:** Advanced pattern of life recognition will identify, flag, and evaluate active jamming events, and produce predictions on how a particular situation may evolve.
- **Multi-GNSS processing:** Slingshot will expand beyond monitoring GPS interference and will detect jamming of multiple global navigation satellite systems. The ability to ingest data from multiple GNSS sources allows allied nations to contribute data from their spacecraft to produce a more complete, real-time view of jamming.
- **Interoperable with existing warfighter systems:** The capability will seamlessly integrate into existing systems, which will enable disseminating information in near-real time so warfighters can make decisions on operationally relevant timeframes to achieve a strategic advantage.
- **Enhancements to the user interface:** An enhanced user interface will provide an easy-to-use platform that allows warfighters across the U.S. and allied services to easily review and make informed decisions during national security operations.

Slingshot's GPS jamming and spoofing detection and geolocation capabilities leverage data passively collected by a mesh network of thousands of satellites canvassing the Earth. By collecting degradation signals from thousands of satellites that are constantly canvassing the globe, Slingshot is able to create a near-real-time picture of where GPS jamming is taking place on Earth at any given moment.

This space-based technology provides a more comprehensive view of global jamming conditions compared to existing ground-based detection systems. Legacy ground-based systems tend to have fixed receivers or limited distance receivers, which creates information gaps due to smaller coverage areas and limited deployment options in contested zones on land or at sea.

"Modern military operations rely on space systems like GPS, so it's no surprise that GPS jamming is already a pervasive threat," said **Tim Solms**, Chief Executive Officer, Slingshot Aerospace. "In addition to military operations, the larger global community is also highly reliant on GPS, but jamming and spoofing may not discriminate between military and civilian users – meaning that functions of daily life like financial transactions and commercial air traffic control could also be affected."

About Slingshot Aerospace

Slingshot Aerospace provides government and commercial partners around the world with AI-powered solutions for satellite tracking, space traffic coordination, and space modeling and simulation. The Slingshot Platform transforms disparate space data into a common operating picture of the space domain by leveraging advanced space object tracking, artificial intelligence, astrodynamics, and data fusion. Slingshot's platform combines data from the Slingshot Global Sensor Network, the Slingshot Seradata satellite and launch database, satellite owner-operators, and other third-party space data providers to create a holistic and dynamic view of space for training, planning, and operations.

DISPATCHES

BAE Systems awarded \$347 million NERVE contract from NGA

BAE SYSTEMS



In 2024, the [National Geospatial-Intelligence Agency](#) (NGA) awarded [BAE Systems](#) a five-year indefinite-delivery, indefinite-quantity \$347 million contract for **NERVE**, the *National System for Geospatial-Intelligence (NSG) Enterprise Repository and Virtual Environment program*. NERVE will modernize the *NSG Consolidated Library (NCL)*, which includes expanding it from a physical data center to cloud-based data services.



The NCL is a centralized operational and systems framework that hosts *geospatial intelligence (GEOINT)*. NERVE will take capabilities that have been on premise at physical locations and migrate them to a modern cloud-based software architecture. Regardless of location, this will enable NGA analysts to receive and make sense of vast amounts of information faster. NERVE will also provide new GEOINT capabilities and integrate sensors into the cloud-based content management system.

Work on NERVE will take place at BAE Systems' San Diego; Rome, New York; and Reston, Virginia, facilities, as well as NGA St. Louis and Washington sites. Major cloud deployments are ongoing and will continue through the period of performance.

"This is an important upgrade for the Intelligence Community and Department of Defense due to the high volume of critical data that comes into the NSG workflow," said **Meg Redlin**, product line director for Mission Systems at BAE Systems. *"NERVE allows that data to flow out at the rate needed to support predictive analytics and missions. It modernizes and sustains geospatial intelligence – getting it to the right users at the right time."*

With more than 25 years of data analytics experience, BAE Systems delivers modernized operations, architectures, and services to the Intelligence Community. These products offer end-to-end capabilities that are intuitive, automated, and fully integrated with enterprise applications to dramatically improve mission effectiveness and enhance decision making for the NSG.

U.S. Space Systems Command selects L3Harris to design resilient GPS satellite concepts

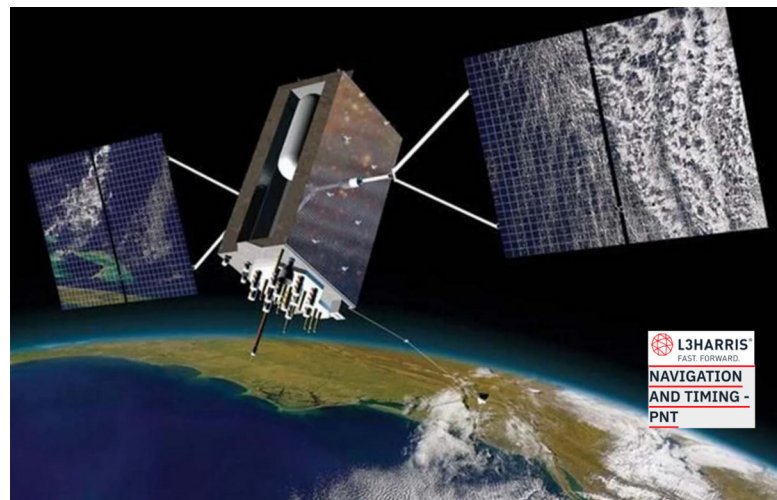
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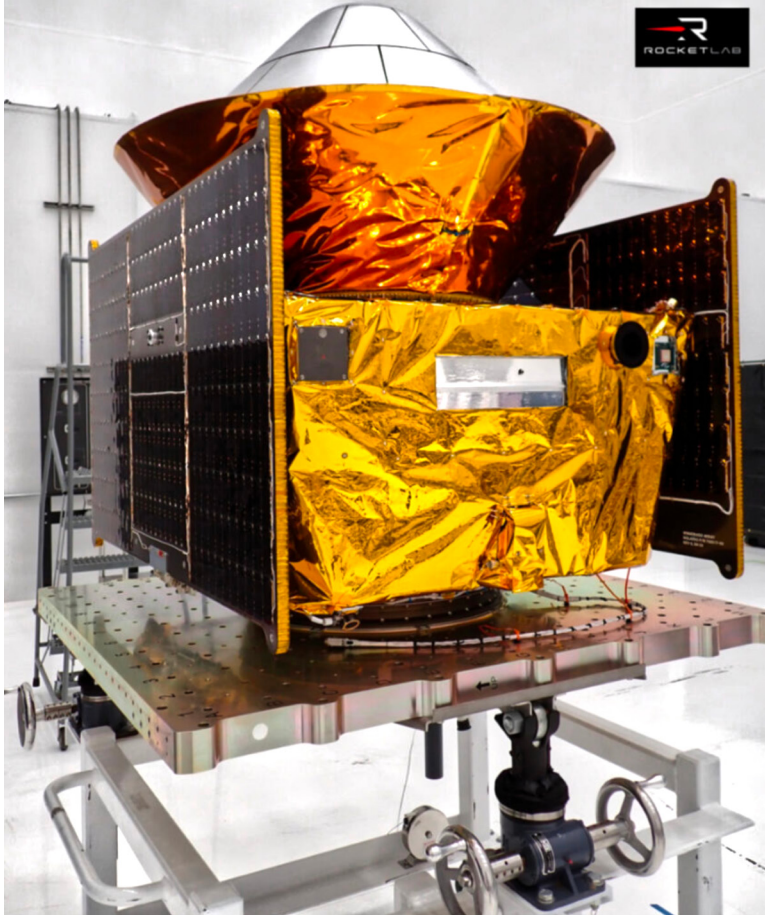


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DISPATCHES

Rocket Lab's 2nd reentry class spacecraft for Varda operating on-orbit supporting payloads for AFRL + NASA



Rocket Lab USA, Inc. (Nasdaq: RKLB) has announced its second Pioneer spacecraft for Varda Space Industries, Inc. is successfully operating on orbit — the mission launched on January 14, from Vandenberg Space Force Base.

Varda's W-2 mission includes a Rocket Lab Pioneer spacecraft and a Varda a re-entry capsule carrying a spectrometer from the **Air Force Research Laboratory (AFRL)**. The capsule employs a heatshield with a **Thermal Protection System (TPS)** developed in collaboration with **NASA's Ames Research Center** in California's Silicon Valley.

These payloads are in addition to Varda's expanded pharmaceutical reactor which will expand capability and capacity for pharmaceutical processing. The W-2 mission follows on from Rocket Lab's first mission for Varda, which operated on-orbit for eight months before returning to Earth in early 2024 in a successful demonstration of the world's first orbital manufacturing mission conducted outside of the International Space Station.

Like the first Pioneer spacecraft for Varda, the W-2 Pioneer is delivering critical mission functions for Varda's 120 kg capsule including power, communications, propulsion, and attitude control.

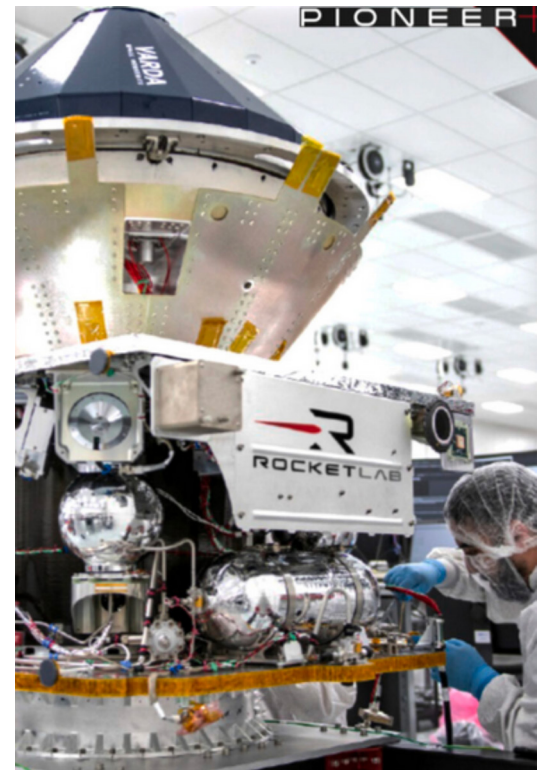
Following the payload processing phase on-orbit, Rocket Lab's spacecraft will guide and position Varda's capsule for deorbit, enabling a hypersonic re-entry and recovery at the **Koonibba Test Range** in South Australia, operated by Southern Launch.



The Pioneer spacecraft was designed, built, and tested at Rocket Lab's **Spacecraft Production Complex** and headquarters in Long Beach, California. It integrates Rocket Lab's vertically developed components and systems, including star trackers, propulsion systems, reaction wheels, solar panels, flight software, radios, composite structures, tanks, separation systems, and more.

The W-2 mission is the second of four spacecraft ordered by Varda to support orbital processing, with the third spacecraft complete and awaiting shipment for launch.

"Another Rocket Lab spacecraft is in orbit, performing well, and supporting innovative new space capabilities for our mission partners Varda Space Industries," said Rocket Lab founder and CEO, **Sir Peter Beck**. "We've built a deep expertise in guidance, navigation, and control, allowing us to precisely manage spacecraft operations in some of the most demanding environments, ensuring that our customers, like Varda, can rely on us to safely and accurately deliver their mission goals, from on orbit operations to capsule re-entry."



"Varda and its partners are building a foundation layer for the orbital economy. The W-2 mission is in service of this goal," said Varda CEO and co-founder, **Will Bruy**. "We are looking forward to many more successful missions, and a world where products made in orbit are seen as common place."

DISPATCHES

Blue Origin's New Glenn reaches orbit after successful Thursday launch, "Today marks a new era"



Blue Origin's New Glenn safely reached its intended orbit during the NG-1 mission, accomplishing the firm's primary objective.

New Glenn's seven **BE-4** engines ignited on January 16, 2025, at 2:03 a.m. EST (0703 UTC) from Launch Complex 36 at *Cape Canaveral Space Force Station*.

The second stage accomplished the final orbit following two, successful burns of the **BE-3U** engines. The **Blue Ring Pathfinder** is receiving data and performing well; however, the booster was lost during its descent.

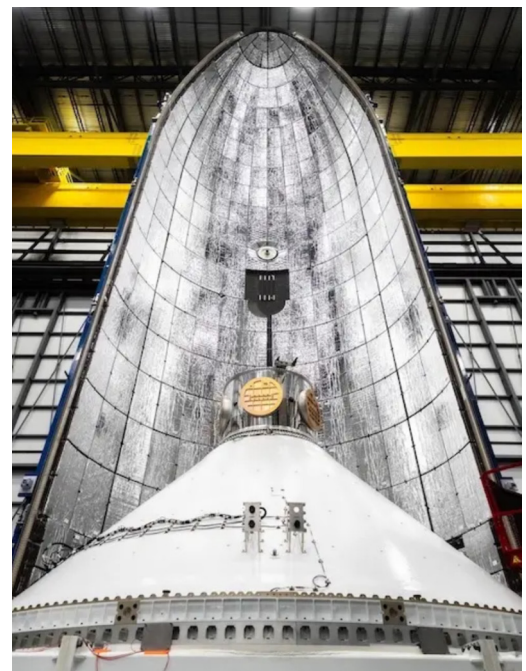
"I'm incredibly proud New Glenn achieved orbit on its first attempt," said **Dave Limp**, CEO, Blue Origin. "We knew landing our booster, *So You're Telling Me There's a Chance*, on the first try was an ambitious goal. We'll learn a lot from today and try again at our next launch this spring. Thank you to all of Team Blue for this incredible milestone."

New Glenn is foundational to advancing Blue Origin's customers' critical missions as well as the company's own operations. The vehicle underpins the firm's efforts to establish sustained human presence on the Moon, harness in-space resources, provide multi-mission, multi-orbit mobility through Blue Ring, and establish destinations in LEO.

Future New Glenn missions will carry the **Blue Moon Mark 1** cargo lander and the **Mark 2** crewed lander to the Moon as part of NASA's **Artemis** program.

The program has several vehicles in production and multiple years of orders. Customers include **NASA**, **Amazon's Project Kuiper**, **AST SpaceMobile**, and several telecommunications providers, among others. Blue Origin is certifying New Glenn with the **U.S. Space Force** for the **National Security Space Launch (NSSL)** program to meet emerging national security objectives.

"Today marks a new era for Blue Origin and for commercial space," said **Jarrett Jones**, Senior Vice President, New Glenn. "We're focused on ramping our launch cadence and manufacturing rates. My heartfelt thanks to everyone at Blue Origin for the tremendous amount of work in making today's success possible, and to our customers and the space community for their continuous support. We felt that immensely today."



The Blue Ring Pathfinder for New Glenn's first mission, NG-1.

DISPATCHES

Lockheed Martin delivers 1st Aegis system equipped vessel radar antenna to Japan MoD



Lockheed Martin (NYSE: LMT) has successfully delivered the first AN/SPY-7(V)1 radar antenna for the Aegis System Equipped Vessel (ASEV) to the Japan Ministry of Defense.

This cutting-edge system has advanced capabilities to detect, track, and engage more complex ballistic missiles and advanced air threats, simultaneously engaging multiple targets with proven interceptors.

The delivery was made through Mitsubishi Corporation under a Direct Commercial Sale (DCS) arrangement after rigorous acceptance testing.

The AN/SPY-7 (V)1 antenna will now proceed to final integration with the ASEV combat system at the Production Test Center (PTC-2) in Moorestown in support of full system delivery to Japan.

This comprehensive integration phase significantly minimizes risk during ship integration and ensures optimal system performance prior to delivery.

“This milestone continues to demonstrate Lockheed Martin’s ability to rapidly scale mature, cutting-edge technology for Japan,” said **Chandra Marshall**, vice president of Multi-Domain Combat Solutions at Lockheed Martin.

Lockheed Martin is committed to supporting Japan’s national security goals, Chandra adding, *“we plan to keep the momentum going with additional antenna deliveries scheduled for 2025.”*

This commitment showcases Lockheed Martin’s dedication to providing Japan with cutting-edge technology and expertise, ensuring 21st Century Security to the nation.

Lockheed Martin’s solid-state radar technology, known as SPY-7 for naval application, is empowering warfighters to make rapid and accurate decisions in high-pressure situations.



Building on the success of the **U.S. Missile Defense Agency’s Long Range Discrimination Radar**, this common radar technology has been planned for future deployments including *Spain’s F-110 Multi-Mission Frigate* and *Canada’s River-Class Destroyer*.

Additionally, a transportable version of the solid-state radar technology is being deployed in Guam, emphasizing its versatility and adaptability.

DISPATCHES

L3Harris showcases robotic drone detection capability for U.S. Army



L3Harris Technologies (NYSE:LHX) has successfully demonstrated a new drone detection and defeat capability for its T7 robot system at Vanguard 24, an annual capstone experiment the U.S. Army hosts at Fort Huachuca, Arizona.

The T7 is a large robotic system that gives operators precision control for **Explosive Ordnance Disposal (EOD)** and other complex tasks.

L3Harris integrated a counter-small **uncrewed aircraft system (UAS)** onto a T7 robot for the experiment to demonstrate remote drone detection and defeat, a key capability for Army operators.

The experiment also tested the ability to remotely sense, monitor and decode other signals of interest using L3Harris' lightweight Individual CORVUS Node, which is designed to help users perform multiple electronic warfare and cyber roles in the field. EOD military forces in the U.K., U.S. and Australia have deployed L3Harris' T7 robots globally.

"This demonstration proves it is possible to expand the future roadmap of the multi-mission T7 platform," said **Ed Zoiss**, President, Space and Airborne Systems, L3Harris. *"Using readily available technologies through the T7 network is a powerful example of our commitment to help customers dominate future mission scenarios, from counter-small UAS to spectrum sensing and beyond."*



DISPATCHES

Kratos receives new hypersonic system program award



Kratos Defense & Security Solutions, Inc. (Nasdaq: KTOS) recently received an approximate \$100 million total potential value hypersonic system program award.

Approximately \$15 million of funding has been received by Kratos at contract award, with significant increased funding expected in the second half of Kratos fiscal year 2025.

Under the new program contract award, Kratos will provide engineering, systems and hardware.

Work related to the program will be performed at secure Kratos fabrication, manufacturing and system integration facilities.



Due to competitive, security related and other considerations, no additional information will be provided.

Tom Mills, President of Kratos CSISR Division, said, “Kratos’ reputation as the industry leader in delivering military quality hardware, products and systems at scale, was a key factor in the receipt of this new program award. The design, engineering and production of National Security related hardware, that must work every time, is hard, and I am proud of our entire organization’s commitment to the United States and its allies’ mil spec system requirements.”

Eric DeMarco, Kratos President and CEO, said, “Kratos is the recognized industry leader in the rapid development and fielding of affordable hypersonic systems, including Erinyes and Zeus, tactical unmanned jet drone aircraft including Thanatos and Valkyrie, jet engines for aerial drones and missiles and related CSISR hardware. At Kratos, it’s products today, not PowerPoints of a hoped for, maybe someday system, at an unknown cost. Kratos warfighter and mission focused customers understand that “better is the enemy of good enough and ready to field today”, while reducing development cost and saving money in today’s increasing fiscally challenging environment.”

AV’s 2nd delivery order on a \$990 million U.S. Army contract



AeroVironment (AV) has been awarded its second delivery order totaling \$55.3 million of Switchblade® loitering munition systems as part of U.S. Army’s Directed Requirement (DR) for Lethal Unmanned Systems (LUS).

The delivery is part of the 5 year contract from **Army Contracting Command-Aberdeen Proving Ground** that is Indefinite Delivery, Indefinite Quantity (IDIQ) with a contract ceiling value of \$990 million that was announced in August 2024.



Switchblade represents the next generation of extended-range loitering munition systems, providing operators in the field with a multi-mission loitering munition system capable of multi-domain operations.

The combat-proven system also features high-precision optics and extended loitering endurance.

“AV is proud to continue deliveries for this monumental contract ensuring the U.S. Army has the most capable solutions in their possession,” said **Brett Hush**, AV’s senior vice president and general manager of Loitering Munition Systems. “Our expanded production capability and streamlined supply chain continue to deliver for the U.S. Army, ensuring rapid fielding and support.”

THE SPACE REPORT

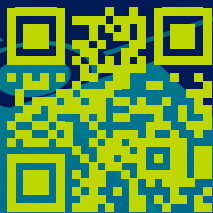
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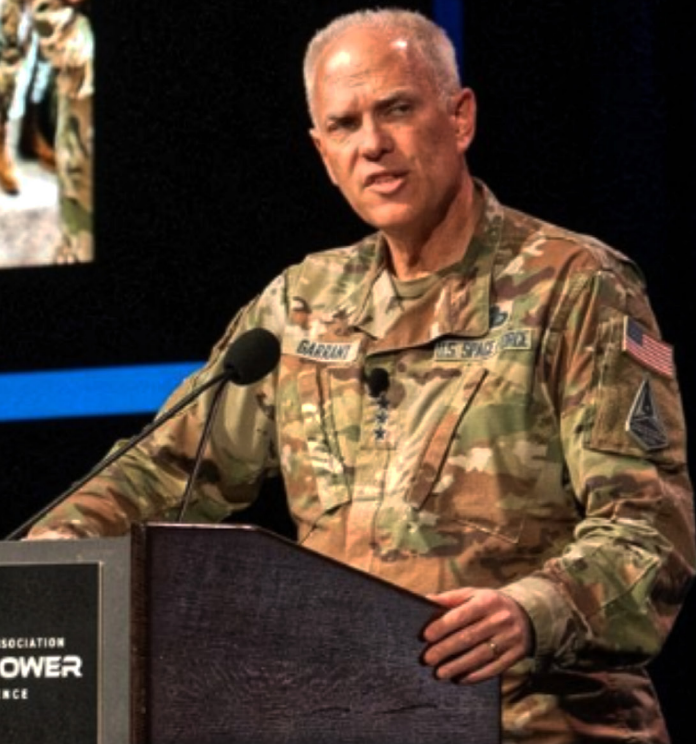
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SSC LOOKS AHEAD

Author:



“In times of crisis or conflict, our adversaries are not going to discriminate between military, commercial, or allied (space) systems. Every satellite on orbit is a viable target. As the primary acquisition hub of the Space Force, SSC is charged with understanding the ever-evolving threat, delivering capabilities to counter it, and determining how to leverage those capabilities to succeed in a Great Power Competition.”

~ USSF Lt Gen Philip Garratt
SSC Commander



BY THE COMMANDER, SPACE SYSTEMS COMMAND

As the primary acquisition hub of the [U.S. Space Force \(USSF\)](#), [Space Systems Command \(SSC\)](#) provides the critical capabilities our Nation's joint warfighters depend on—today and into the future. These capabilities are critical to the joint force and the American way of life. The average citizen's reliance on space—from the GPS signals in their cars to ATM machines to modern agriculture—is woven into almost every aspect of our lives.

At least half of the U.S.'s critical infrastructure depends on space. In modern warfare, without space, kill chains don't close, our strategic advantage evaporates and we lose. Our adversaries understand the importance of space power, and they are ready and willing to take it from us.



Current and future personnel — the strength of SSC

This is why the Space Force exists. Space is our responsibility, and we must contest and control the domain to ensure freedom of action.

China and Russia continue to heavily invest in counterspace capabilities with the intent to present a serious threat to U.S. national security interests in, from, and to space. These threats are no longer emerging—they're here.

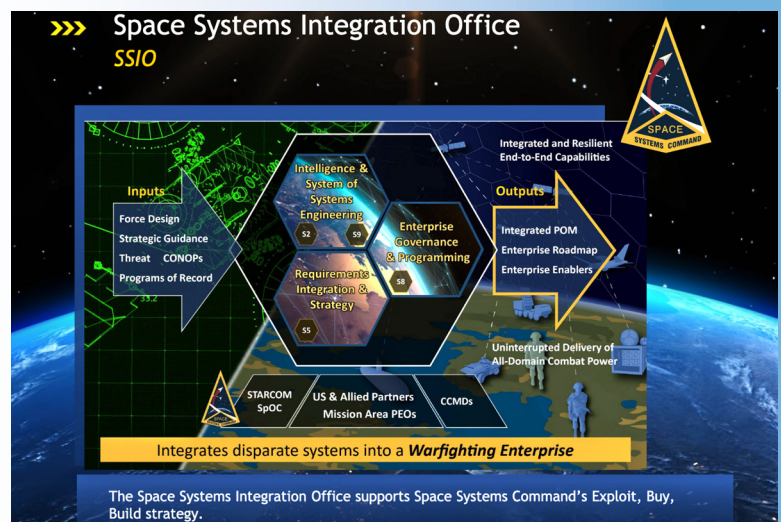
And in times of crisis or conflict, our adversaries are not going to discriminate between military, commercial or allied systems. So it's not just military space capabilities at risk: every person and every satellite on-orbit is a viable target.

The Space Force and SSC are working hard to stay ahead of the ever-evolving threat; developing counter-threat capabilities and determining how to leverage those capabilities to succeed in today's Great Power competition.

SSC is not alone in this effort—the rapid rise in commercial proliferation, increased allied partnership in space, and growth in the space technology sector all contribute to our success today and into the future. Contributions from across the space community help to ensure the U.S. maintains our superiority over the ever-changing space domain and outpaces our near-peer adversaries.

Now in our fourth year, we continue to refine what a field command for an acquisition organization looks like and how it most effectively operates. We're continuing to align our priorities and resources. And we're taking bold new steps to develop an expert workforce focused on delivering game-changing capabilities.

SSC now consists of six capabilities-based program executive offices, a **Space Systems Integration Office**, an **International Affairs Office**, a **Commercial Space Office** and a **Warfighting Integration Office**.

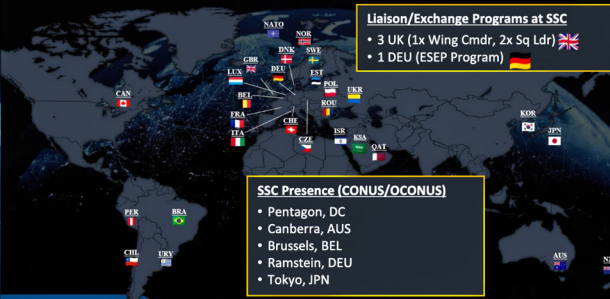


>>> International Affairs (IA)

Focused on the threat/ Allied by design



SSC's Global Constellation of Partnerships



>>> Commercial Space Office

Delivering expedited, game-changing commercial capabilities to the warfighter



>>> WARFIGHTING INTEGRATION OFFICE

INTEGRATE | ADVISE | DELIVER

- Space Domain Awareness & Combat Power
- Communication and PNT
- Assured Access to Space
- BMC3
- Space Sensing

I recently released a [command plan](#) that shifts our strategic focus on how we organize, train and equip the SSC workforce to enable the program executive offices and acquisitions teams to out-deliver our adversaries. Collaboration is key to our achieving technical, operational, and acquisitions excellence.

SSC's command plan emphasizes the need for a culture where our people are driven by a warfighting mindset focused on the threat. This means our experts are biased towards action and speed; fueled by a sense of personal and professional accountability, and never settling for 'good enough.'



SPACE SYSTEMS COMMAND COMMAND PLAN

Develop and field dominant space capabilities by advancing an expert workforce

DEEPENING OUR CONNECTION WITH STAKEHOLDERS

We're seeing a lot of great ideas from small and emerging space industry companies and SSC has developed numerous ways to make certain those companies have an easier time developing partnerships with us. Working with government and the military can often seem daunting, particularly if a new company has never worked with us before or doesn't know how to navigate the process.

Our Commercial Space Office, which includes [Front Door](#),

[SpaceWERX](#), [Commercial Marketplace](#), [Commercial Satellite Communications Office](#), [Commercial Collaboration Center](#) (COSMIC)





SSC National Security Launch: GPS III Expedited Launch

and the **Commercial Augmented Space Reserve (CASR)** exists to accelerate these commercial partnerships and cut through the red tape to deliver capabilities aligned with warfighter needs by connecting the right business with the right space agency, and the right capabilities.

Over the last year, we held eight industry days, each focusing on different space capabilities, learning from commercial space industry what is possible, and discussing what capabilities our warfighters need now.

DELIVERING COMBAT-CREDIBLE, READY, AND RESILIENT CAPABILITIES

Our launch tempo continues to grow. We put 141 launches in orbit from our Eastern and Western ranges in 2024. That is 100 more launches than just three years ago.

Of our 2024 launches, four were **National Security Space Launches**—our can't-fail missions that provide essential space capabilities for national security.

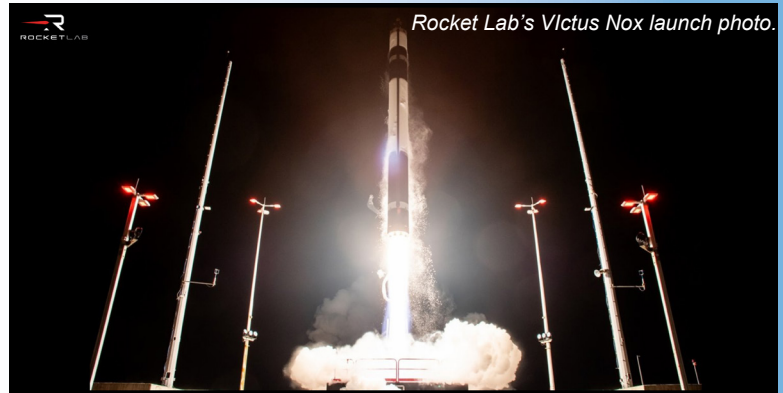
Another four were **Rocket System Launch Programs (RSLP)**. These provide suborbital launch capabilities for various **DoD (Department of Defense)** programs, including experimental payloads that are paving the way for exciting new future capabilities.

More than 80 percent of our launches are commercial satellites, so we're ensuring we have resilient and ready spaceports. Not only are they beneficial to the U.S. economy, but they also provide us with plenty of launch opportunities for our critical space assets.

The DoD-led satellite launches managed by SSC and its predecessors *have not experienced a launch failure* for nearly a quarter of a century. We take great pride in that.



Lt. Gen. Garrant, SSC commander, addresses attendees of an SSC-hosted ceremony recognizing achievements in astronautics



Rocket Lab's Victus Nox launch photo.



SSC's Victus Nox mission image.



Lt. Gen. Garrant, SSC commander, (right) meets with Gen. Chance B. Saltzman, Chief of Space Operations, U.S. Space Force at Los Angeles Air Force Base

Our **Tactically Responsive Space Program (TacRS)** is another SSC team focused on outpacing the threat. We made history in 2024 with our **Victus Nox** mission, in which we demonstrated SSC's ability to rapidly mate a satellite to a rocket and launch in an unprecedented timeline, proving we can rapidly respond to threatening on-orbit behavior. In December, we demonstrated how commercial synergy also enhances resilience and responsiveness for our national security missions, launching high-value military and intelligence satellites. Our **Rapid Response Trailblazer (RRT-1)** mission—a U.S. national security space launch—used military capabilities to condense a typical two-year mission planning cycle to less than six months.

Next will be our follow-on TacRS project, **Victus Haze**, which challenges us and industry to collaborate on delivering tactically responsive space capabilities. This program accelerates our ability to characterize adversary aggression and respond to it.

The TacRS team is charged with leaning forward and taking educated risks to deliver effects for space superiority. They've cultivated strong partnerships with combatant commands, operations teams, and innovative organizations such as the **Defense Innovation Unit (DIU)** and **SpaceWERX** to move their solutions forward as flexible and responsive options that meet warfighter needs.



Another team making a big impact is our **Tactical Surveillance, Reconnaissance and Tracking Team (TacSRT)**. They continue to revolutionize traditional acquisition and contracting timelines through streamlining processes and use of the global data marketplace.

Through these innovative solutions and partnerships with industry, the TacSRT team today can deliver decision-making information to combatant commanders in under 72 hours.



1st Lt. McKenna Medina and Joseph Gerber, JCO Integration, discuss updates to the Illegal Fishing Operational Planning Products during daily operations.

Photo credit: SSgt, Matthew Matlock

Two members of that team, **Capt. Travis Osborn** and **Capt. McKenna Medina**, directly contributed to the U.S. military withdrawal from Air Base 201 in Agadez, Niger, last summer.

Using information gathered through an existing industry partnership, they and their team developed a baseline of normal activity to identify areas where protests or unrest would likely begin. The team's average response time from time-of-seen activity to report delivery was just five and a half hours, with their fastest time clocking in at 90 minutes. These initiatives are pushing the boundaries of what we thought was possible with rapid response.

PARTNERING WITH OUR ALLIES

In our historically complex space environment, it's essential that we have a joint force mindset and maximize all opportunities to partner in order to be successful. There is significant value in engaging with our international partners.

Our Nation's integrated deterrence strategy requires robust collaboration and information sharing with our allies, as demonstrated by two recent success stories; both which serve as models for future opportunities with allied partners.



First, our **Enhanced Polar System - Recapitalization (EPS-R)** partnership with **Space Norway**. We partnered with Space Norway to launch two EPS-R satellites in August, marking the first time a

DoD operational payload was hosted on an international satellite. The result is enabling secure, 24/7 protected SATCOM capability within the north polar region, and approximately \$900 million in savings for the U.S. government.



Artistic rendition of EPS-R satellites on-orbit.

Second, the **Quasi-Zenith Satellite system-hosted payload program (QZSS-HP)**, with Japan.

With QZSS-HP, as proliferation of both friendly and adversary-based systems in geosynchronous orbit increases, our innovative approach will deliver much-needed space domain awareness capability and while diversifying our presence in GEO.



2025 & BEYOND

Space is now a warfighting domain, and we support the Space Force in a solemn responsibility to defend our space-based capabilities. I am proud and excited to share the many exciting SSC programs scheduled for completion this year.



Lt. Gen. Garrant, SSC commander, welcomes undersecretary of the Air Force, Melissa Dalton, to Los Angeles Air Force Base.

One is **Next-Generation Operational Control system (OCX)**, the command-and-control component of next generation GPS. Another is our **Military GPS User Equipment Program (MGUE) Increment 1**, which will modernize military GPS receivers, delivering accurate and reliable positioning, navigation, and timing to U.S. and allied users where current receiver performance may be compromised or unavailable.

We're also looking forward to adding to our **Wideband Global SATCOM (WGS)** constellation, which serves as the backbone for U.S. military global satellite communications.

Our **Assured Access to Space** organization also will be moving ahead with its **NSSL Phase 3**, which is designed to strengthen the commercial space industrial base by adding a third launch provider to our NSSL program and providing on-ramps for new and emerging providers for more risk-tolerant missions.

Space Force will also be launching **Space Futures Command**, its fourth field command, to help us analyze the threat environment, test new concepts, and perform mission design to better align with what the joint force needs.

Our military, our Nation and our allies rely on SSC's ability to deliver space-based capabilities that protect our Nation, enable our critical infrastructures, and fuel our economy.

We are committed to organizing, training and equipping a workforce that fields threat-informed capabilities.

And we are committed to delivering combat-credible effects to continue our foundation for enduring dominance and competitive advantage.

We may not be able to predict what the future will hold, but we can assert that the men and women of SSC are ready, resilient, and eager to meet all of the coming challenges.

As we begin a new year in the Great Power Competition, I continue to encourage current and potential industry partners and allies to connect with us.

We need to hear and understand your suggestions and your challenges. SSC's Front Door is open to facilitate these vital discussions. **Semper Supra! —Lt. Gen. Philip Garrant, Commander**

Contact Space Systems Command at
SSC@spaceforce.mil follow on [LinkedIn](#).

Space Systems Command delivers, launches and sustains capabilities that advance, enhance, protect and defend our premier place in space and our way of life on earth. Our actions today are making the world a better space for tomorrow.

Celebrating **3** Years as a USSF Field Command AND **70** Years of military space development

DISA OCONUS

CONNECTING WARFIGHTERS, STRENGTHENING READINESS



Author: Marco A. Villasana Jr., DISA Office of Strategic Communication and Public Affairs

U.S. Army paratroopers assigned to 2nd Battalion, 503rd Infantry Regiment, 173rd Airborne Brigade receive orders about how to proceed over a mound while conducting a live-fire exercise in Grafenwoehr Training Area, Germany.

U.S. Army photo by Spc. Ryan Lucas

The **Defense Information Systems Agency** is evolving cloud capabilities for Warfighters stationed outside the contiguous United States. Through **OCONUS Cloud**, DISA ensures mission-critical data is available where it's needed most — at the operational edge.

March 4 - 5
9 a.m. - 4 p.m.
Arlington, VA



This initiative aims to bridge the gap between cloud and edge computing, addressing the challenges of denied, degraded, intermittent and limited communications.

"The biggest challenge for OCONUS Cloud adoption is simply understanding why you need to bring your data to the edge when it's already in the cloud," said **Adam Ringel**, DISA J-9 Hosting and Compute Directorate OCONUS Cloud user experience chief.

"When you consider the Warfighter," added Ringel. "We need to account for [denied, degraded, intermittent and limited communications] situations where transport to the commercial provider is not possible. That's where the **Joint Operational Edge Cloud (JOE)** comes in, providing physical computing hardware at the edge to continue the mission."

One piece of this evolution is **Stratus**, DISA's private cloud. Now available in Hawaii, Japan and Europe, Stratus delivers a secure, scalable, multi-tenant platform designed to complement public cloud capabilities with a full authority to operate.

Mission partners can use Stratus to run applications requiring high bandwidth while leveraging the elasticity and resource pooling found in commercial clouds.

"Stratus is about giving mission partners options," said **Jeff Marshall**, DISA J-9 Hosting and Compute Directorate acting director. "Some applications require data sovereignty or may not yet be ready for a public cloud. Stratus bridges that gap, providing private cloud capabilities within a DISA data center while offering a pathway to hybrid cloud solutions."



On the other hand, JOE extends commercial cloud computing to operational edge locations, allowing mission partners to maintain continuity even in contested environments.

By bringing the commercial cloud to the edge with a more robust infrastructure than traditional tactical deployments, JOE aligns with the Department of Defense Chief Information Officer's OCONUS Cloud Strategy, which envisions three tiers of deployment to the cloud: strategic, operational and tactical.

Currently operational in **INDOPACOM**, with plans for expansion to other theaters in fiscal year 2025, JOE leverages **AWS Outpost** to deliver this capability.

As DISA continues to test and refine JOE, the agency invites military services and combatant commands to reach out and explore this innovative solution.

"The goal of JOE is to offer capabilities from all major providers — AWS, Microsoft, Oracle and Google — under the [Joint Warfighting Cloud Capability] contract," Ringel explained. "These edge deployments will ensure that mission partners have the tools they need, no matter where they operate."

DISA is also innovating through its **Hybrid Cloud Broker Office**, which connects mission partners with tailored solutions across public, private and on-premise environments.

"We're not just pushing products," Marshall said. "We listen to mission partners' challenges, turn those into requirements and deliver solutions that meet their needs from the start. This proactive approach accelerates adoption and ensures readiness."

For Warfighters operating in the Indo-Pacific and beyond, these advancements mean faster access to critical data and reduced latency.



"Data sovereignty is key," Marshall said. "By bringing cloud solutions closer to the mission, whether in Hawaii, Japan or other locations, we're enabling real-time decision-making with high resiliency."

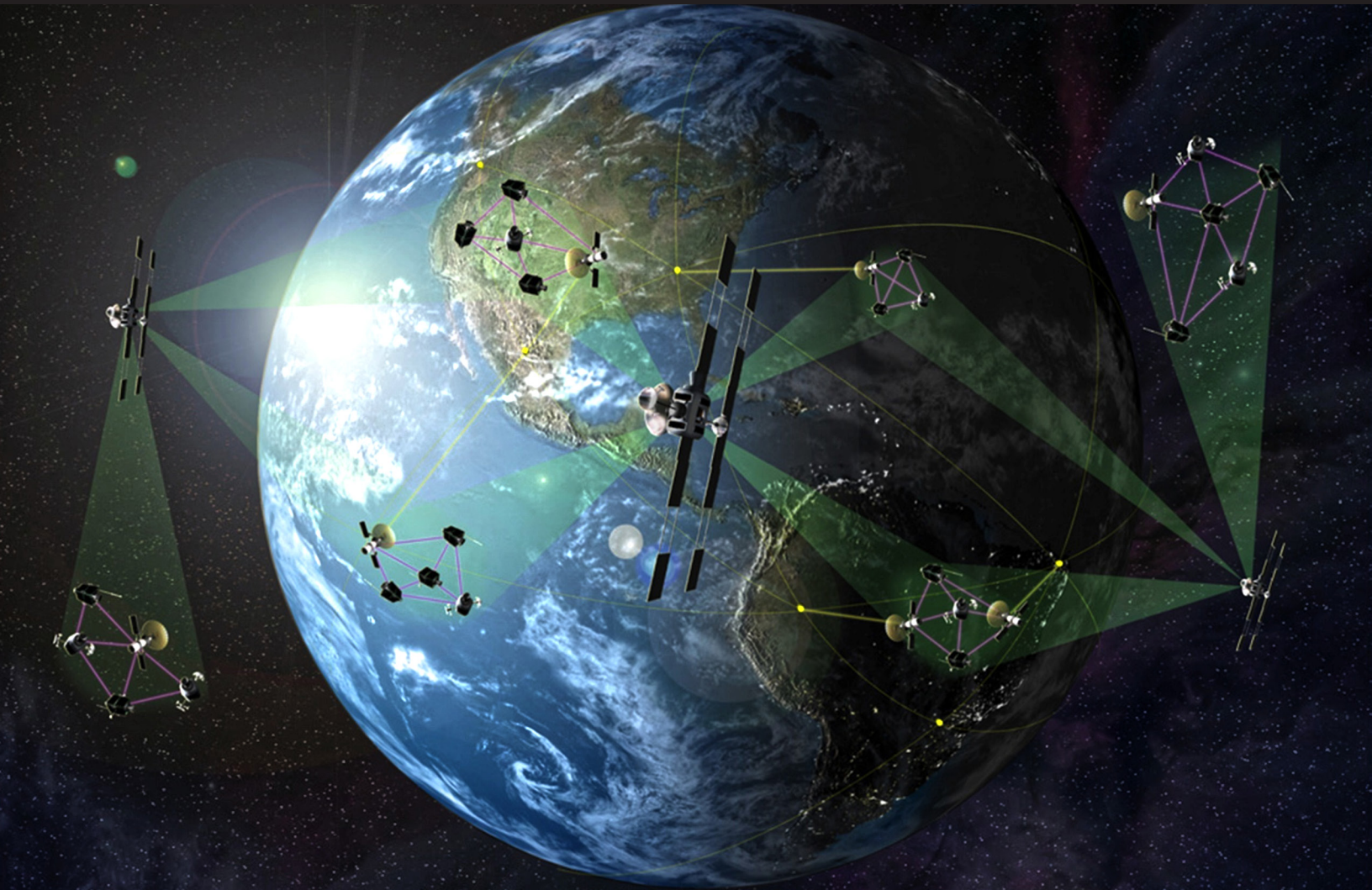
Visit this direct link for more information on DISA's hybrid cloud solutions.

www.disa.mil



CHANGING MINDSETS ON GOVERNMENT SATELLITE PROGRAMS

Author: Piers Olsen, Chairman, Olsen Actuators and Drives



Government and defence satellite projects have a reputation for lengthy and complex procurement processes, notoriously long lead times and wallet-busting budgets.

The need for high reliability in space systems has also led to a highly risk averse culture where provenance is paramount to avoid any failure. However, this mindset is evolving as developments in satellite technology from the New Space community prove that satellite development projects needn't be so long and drawn out.

Satellites are the lynchpin of communications for the military and deliver the secure and remote connectivity that is so critical to military operations, but the military is not making strides forward in satellite technology. Instead that is coming from the private sector where New

Space is fast emerging and represents the re-birth of the industry, where an array of entrepreneurs, some from familiar tech giants with billions to bankroll their projects, and some from small start-ups that want to give new concepts a try.

Over the last decade space has come alive again and this has also led governments to be forward thinking in terms of how this New Space phenomenon could potentially feed into defence projects.

This new age of space has brought with it an acceleration of projects. These companies don't want to hang around. They need to prove their concept and make money, and as a result, the time taken from the drawing board to launch has been cut considerably. This sector has an agility that government programs have never had.

GEOPOLITICS

The complexity of the geopolitical environment has taken a huge turn in recent years. Instability is the common denominator in regions across the globe, with conflicts continuing in the Ukraine, the Middle East.

Tensions between the U.S. and China continue and the rise of nationalism and protectionism is increasing. Space is playing a more central role than ever before in defence. Satellites gather information, they allow secure communications in the most hostile of environments, they are highly flexible and difficult to disable, and they are recognized as a priority in defence systems.

However, to benefit from advancements in satellite technology, governments must learn to be more agile and to take a leaf out of the New Space book. This can be accomplished by pushing innovation, differentiating space-based systems, lowering costs and reducing timely and costly inefficiencies.

TAKING RISKS IN THEIR STRIDE

In the past, the space sector itself has been notoriously risk-averse, to the point of slowing itself down. Lead times on satellite manufacturing were years long. Budgets were pushed to the limit and the technology that eventually made its way to orbit was often outdated quickly, necessitating a new project and the cycle starting all over again.

Look at the satellite industry today. Spacecraft development is speeding up, especially in *Low Earth Orbit (LEO)*, where New Space companies are turning projects around at record speed. The use of software defined payloads is enabling operators to configure their satellites on-orbit, to change their profiles so that they can serve different applications across different regions with steerable beams.

This is game changing technology, enabling an industry that previously had to literally design a new satellite to fulfill a certain job description to operating a flexible payload that can remain relevant for its entire lifespan.

Space players were once dependent on a small handful of launch operators to get them where they needed to go. Today, however, we see the emergence of highly successful players such as **SpaceX** and **Rocket Lab** as well as many other companies in development with solutions that promise less expensive, rapid access to space and rideshares that spread the cost.

This means that spacecraft manufacturers can trial technology much more easily and be assured of their ride into orbit. The net result is more of an appetite to try new things—and take more calculated risks.

NEW ATTITUDE TOWARD DESIGN

The need for new technology in the field is urgent, and to ensure that this happens, there needs to be a re-focus of the defence sector to concentrate on speed, not complexity.

The defence industry has deeply ingrained ways of working and that is not going to be easy to change, but the ability to use a more agile design process will result in new technology reaching the field far faster. This can be achieved by adopting a process of iterative design, rather than the traditional waterfall process that relies upon sequential steps. An iterative design process is the process of continuously improving a concept, design or product.

The creation of a prototype enables teams to conduct constant tweaking of the product through repeated adjustment cycles. There is an element of improvement gained through every cycle, taking the design team closer to the end goal at every step.

In the iterative design process, failing is an important part of the process. We've all witnessed the failures of SpaceX rockets, for example. The team can brush failure off and simply carry on as that is an acknowledged part of the process. This cycle is much faster than the waterfall model and promotes efficiency, timeliness, cost-effectiveness and makes it easier to manage risk.

A NEW APPROACH TO COMPONENTS

Military satellite projects rely heavily upon a reliable component supply chain and have previously used a lot of bespoke components within their projects. Components require large, non-recurring costs to produce, with expenses such as R&D and testing, and this can limit the potential suppliers that can compete to produce them creating a lack of competition.

Commercial-off-the-shelf (COTS) components are at the very foundation of New Space manufacturing. Companies are striving to keep costs down while offering a high level of performance and using components that can withstand the rigors of the space environment. It's a true balancing act.

However, this once again highlights a shift in mindset. Where space players were once reluctant to use COTS components and brought development in-house to avoid risk, today NewSpace players are focused on managing risk and are turning to COTS to ensure cost-effective and fast realization of their projects. By building a robust portfolio of high quality, space-rated, off-the-shelf components, they are enabling agility and flexibility.

Critically, they are adopting an assembly-line mentality, where the components they are using in their designs are tightly matched with the manufacturing process. If this approach can be adopted by defence organizations, it would streamline the process and access to components will become much faster, simpler and cost-effective.

Already, component manufacturers have designed and tested their products specifically for the space environment. They have already made the investment in the R&D, the integration, the clean room and the project management. They have the engineering staff available.

They offer quality in production and economies of scale, and many are already flight proven. The products undergo intensive testing for shock, vibration, cooling and radiation and other environmental testing. This may result in a more expensive cost per unit, but already accounted for is the hard work.

If a more tailored approach is needed, customized components can be offered, and these fall somewhere in between COTS and in-house developed products. They are essentially COTS, but they are adapted for specific use cases. Here, manufacturers work with the client to understand their requirements and then make changes to the original commercial component. This means that the customer avoids lengthy, in-house development, design resources and project management plus associated validation testing risks. Buying in components such as motors, drives, encoders, actuators and roller screws also means that the client can focus resources on systems engineering and application design solutions.

A reputable component manufacturer will be able to provide traceability of all their products, which is often a critical consideration for government satellite projects. Assurances can be put into place that ensure that the COTS components selected can run the course of a mission, can cope with the space environment, and can meet size and weight requirements.

ADOPTING NEW SPACE THINKING

The way we think about satellite manufacturing is changing and it's time for governments and defence organisations to transform their way of thinking about how their programs should be delivered.

A new level of collaboration is required between component manufacturers and government entities, so that a new level of engagement can be fostered to support a new design process. In this manner, we can define a new era of military satellite manufacturing.

If we can heighten awareness of the streamlining that can take place and work closely with defence organizations to understand their requirements, we can ensure that our components meet and exceed expectations.

COTS does not mean cutting corners—it simply means that components are available as and, when they're needed, customized or not, and that satellite projects can come to fruition and complete the job in the field that they are required to accomplish, rather than suffer delays and the danger of becoming obsolete. A nimble mindset will help to vastly reduce lead times and deploy new technology quickly—all so critical to mission success.

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COMMENTARY: FNM GROUP

TECHNOLOGICAL INNOVATION OF ADVANCED DRONE SYSTEMS PLAYING AN INTEGRAL ROLE IN MILITARY DEFENSE OPS

Author: FN Media Group Editorial Team



The global military drone market is an active market around the world. Recent reports show that the growth is predicted to continue through 2030.

A report by **Grand View Research** states that the degree of innovation in the market is high, driven by continuous advancements in **artificial intelligence (AI)**, sensor technologies, and autonomous systems, which are significantly enhancing the capabilities of military drones.

Furthermore, the ongoing development of swarm technologies and counter-drone measures highlights the dynamic and cutting-edge nature of this market, as militaries worldwide invest heavily in R&D to maintain strategic and technological superiority.

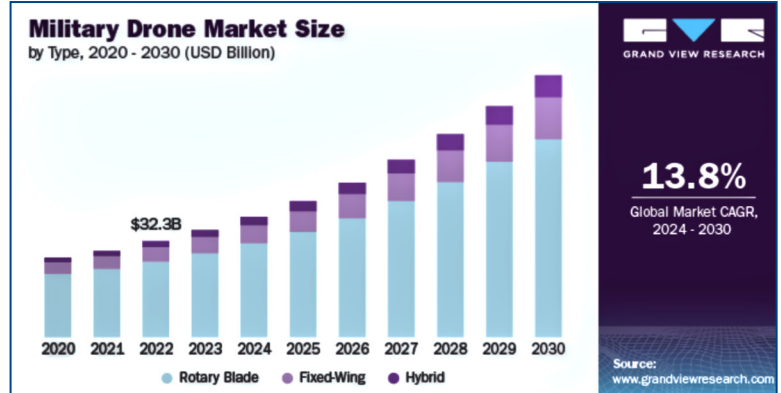
The level of mergers and acquisitions in the market is high which, according to the Grand View Research report, is primarily "due to the strategic need for companies to enhance their technological capabilities and expand their product portfolios to remain competitive. Larger defense contractors are actively acquiring innovative startups and specialized firms to gain access to cutting-edge drone technologies, artificial intelligence, and advanced manufacturing processes.

"The market has an elevated level of end user concentration. This is due to the primary users of military drones, that being national defense and security agencies, which constitute a relatively small and specialized customer base. These agencies often have significant purchasing power and specific requirements, leading to a concentrated market where a few key customers dominate demand. In addition, the high costs and complex procurement processes associated with military drones further limit the number of end users, reinforcing the high concentration in this market."

Active Companies in the market today include **AeroVironment, Inc.** (NASDAQ: AVAV), **Kratos Defense & Security Solutions, Inc.** (NASDAQ: KTOS), **Lockheed Martin** (NYSE: LMT), **Safe Pro Group Inc.** (NASDAQ: SPAI), and **ZenaTech, Inc.** (NASDAQ: ZENA), to name but a few.

The article concluded by stating, "The military drone market in the U.S. is anticipated to grow at a CAGR of over 12% from 2024 to 2030. Due to the country's commitment to advancing its defense capabilities and integrating cutting-edge technologies into its military operations, the U.S. military's substantial investment in research and development,

coupled with its focus on enhancing operational efficiency and maintaining technological superiority, drives high demand for sophisticated unmanned systems. The military drone market in the European region is anticipated to register a CAGR of around 12% from 2024 to 2030 owing to the region's commitment to enhancing its defense capabilities and addressing emerging security threats through advanced technologies. The collaborative defense initiatives, such as joint European defense programs and NATO partnerships, alongside growing defense budgets and a focus on technological innovation, are key factors contributing to the strong growth of the market in Europe."



Drone Info Updates

ZenaTech, Inc. (FSE: 49Q) has signed a lease to open a **Beyond Visual Line of Sight (BVLOS)** drone testing facility in Turkey. The facility will serve as a product testing site for its subsidiary ZenaDrone's ZenaDrone 1000 model drones designed for the U.S. Defense Branches and NATO. The testing facility will be fully set up and operational during the first quarter of 2025.



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“Having a testing facility in Turkey will accelerate the development of our U.S. Defense and NATO models of the **ZenaDrone 1000**. Importantly it will help to advance our AI drone swarm solutions and the Drone Command Center hub at the heart of missions. Turkey is a favorable European location for experimental drone testing and known for its defense industry innovation and we are grateful to be collaborating there,” said CEO **Shaun Passley**, Ph.D.



Photo of the ZenaDrone 1000, courtesy of the company.

The company will test defense drone applications including ISRT (*Intelligence, Surveillance, Reconnaissance, and Targeting*), logistics and transportation, and other applications over wide distances beyond an operator’s line of sight. The company will also design and test its *Drone Command Center*, a mobile room that manages the computers, controls, and communications for multiple drones flying at one time, which it intends to file a patent for in the first quarter of 2025. The site is expected to help provide additional testing and readiness for future U.S. **FAA** (*Federal Aviation Administration*) licensing applications.

A drone command center is a centralized facility or mobile room used to monitor, control, and manage the operations of multiple drones or AI drone swarms in real-time. It acts as the operational hub where drone missions are planned, executed, and monitored, ensuring that drones are collecting data and performing their tasks safely, efficiently, and within regulatory guidelines.

A drone swarm is a group of autonomous drones that work together, coordinated by algorithms, to perform tasks with dramatically improved speed, efficiency, and coverage. ZenaTech previously announced the **Sky Traffic** project where ZenaDrone teams will be working on applications for drone swarms, also using Quantum Computing, which will include border control and perimeter security military applications.

ZenaDrone previously completed paid trials with both the U.S. Air Force and U.S. Naval Research using its drones for carrying critical cargo—such as blood—in the field. ZenaDrone plans to manufacture and assemble its **U.S. Department of Defense (DoD)** drones in Phoenix, Arizona.

The ZenaDrone 1000 is an autonomous drone, in a quadcopter design with eight rotors, and is considered a medium-sized drone, roughly the size of a boardroom table. It is designed for stable flight, maneuverability, heavy lift capabilities, incorporating innovative software technology, AI, sensors, and purpose-built attachments, along with compact and rugged hardware engineered for industrial and defense use.

ZenaDrone solutions for the U.S. military must be **NDAA** (**National Defense Administration Act**) compliant, a requirement with strict drone cybersecurity and country of origin specifications, including chipsets, cameras, and components, which excludes a set list of Chinese manufacturers. The company previously announced that its supply chain is NDAA-compliant.

The company has also previously announced that it plans to apply for Green **UAS** (*Unmanned Aerial Systems*) followed by Blue UAS certification. The Blue UAS program is a stringent government-approved supplier list of drone companies that wish to do business with the U.S. DoD. The Green UAS program is essentially the same as the Blue UAS program, only it is a more streamlined and faster certification process without the country of origin specifications.

Other recent developments in the market include:

AeroVironment, Inc. (NASDAQ: AVAV) **Wahid Nawabi**, AeroVironment chairman, president and chief executive officer, recently said, “Key wins from our *Loitering Munition Systems* segment continue to drive growth for the company. We expect our proposed acquisition of *BlueHalo* to further advance our growth opportunities with a highly complementary portfolio of products, customers and capabilities in key defense space and intelligence sectors and establish AeroVironment as the next generation defense technology company for our customers. We look forward to continued momentum beyond fiscal year 2025.”

Safe Pro Group Inc. (NASDAQ: SPAI) **Airborne Response** has launched their new “*Drone as a Responder*” (DaaR) service that provides turn-key operational support for law enforcement, public safety and other first responders, assisting them to use advanced, U.S. Government approved, Blue-UAS drone technologies for rapid incident response and assessment.



Drone as a Responder (DAAR) initiative.

Kratos Defense & Security Solutions, Inc. (NASDAQ: KTOS) has been awarded a \$6.5 million, single award contract by the **Defense Advanced Research Projects Agency (DARPA)** to provide flight testing for hypersonic research supporting future weapon systems. The two-year contract which began in August 2023 includes flight tests to develop, characterize, and validate critical hypersonic components for technology maturation and risk reduction.

The contract was awarded by the **DARPA Defense Sciences Office (DSO)** and supports the company’s mission of creating the next generation of scientific discoveries and fueling innovation by leaning forward to expand the art of the possible. During program execution, Kratos is leveraging flight proven, affordable hypersonic test beds and sounding rocket-based launch vehicles to fulfill various flight experiment requirements and validate *modeling and simulation (M&S)* tools rapidly and affordably for future hypersonic flight testing.

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