Next Generation Space Defense

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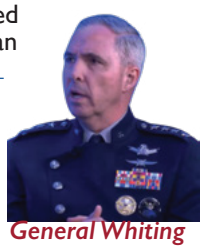
DISPATCHES

SPACECOM LEADER OUTLINES VISION FOR SPACE SECURITY

As Russian forces attacked Ukraine's communication infrastructure in 2022, the Ukrainian military turned to a commercial satellite system to maintain operations. With over 7,000 satellites in orbit, that system provided internet access, which enabled battlefield communications, drone coordination and real-time intelligence imagery that revealed Russian troop movements.

The use of commercial space technology in conflict marked a turning point, demonstrating that even countries with limited space infrastructure can leverage space-based capabilities during war. That shift was the focus of an event hosted last month by the ***Chicago Council on Global Affairs***, titled "*Securing the Final Frontier with Gen. Stephen Whiting of U.S. Space Command*."



General Whiting

Whiting, commander of ***Spacecom*** and a ***Space Force*** officer with a background in satellite operations, launch systems and policy, highlighted the growing commercialization of space and the emerging threats from adversaries like China and Russia.

While these advancements support global services and military operations, they also create new vulnerabilities. Whiting warned that rivals possess cybertools, jammers, lasers, direct ascent antisatellite weapons and co-orbital systems to disrupt U.S. space capabilities. He called recent reports that Russia may be exploring a nuclear weapon for space "*incredibly irresponsible*," citing the potential to disrupt satellite networks critical to both civilian life and military readiness.

> *"Over the last 10 to 15 years, [the] U.S. commercial space industry has become the driving force of innovation,"* he said, pointing to commercial reusable rockets and large satellite constellations. *We can't defend our country without space capabilities," Whiting said, noting that adversaries have studied U.S. reliance on space since the 1991 Gulf War. "We don't want a war in space,"* Whiting said*, "but we must be prepared to win if it comes."*

He pointed to a 2021 Russian antisatellite test that created 1,500 pieces of debris and China's testing of fractional orbital bombardment systems as signs of the evolving threat landscape. Even everyday functions—financial transactions, emergency services and navigation apps—depend on GPS, which could be disrupted in a space conflict.

To that end, Spacecom works closely with allies such as Canada, the United Kingdom and Australia to project strength. A recent executive order launching the Golden Dome missile defense initiative further highlights space's central role in national security. Whiting said commercial innovation enables the development of space-based sensors and interceptors needed to track hypersonic and orbital threats.

Reflecting on Ukraine's use of commercial space systems, Whiting identified three key lessons: smaller nations can now access advanced capabilities, cyberattacks on satellites are a major risk and space-based tools—such as GPS, communications and intelligence—are essential to battlefield success. These takeaways guide Spacecom's current priorities, including strategies to counter China's surveillance.

News report by Army Major Wes Shinego, DoD News

SSC + FIREFLY PLANNING ORBITAL LAUNCH FROM ESRANGE FOLLOWING TSA SIGNING BETWEEN SWEDEN + U.S.

***Swedish Space Corporation** (SSC) and **Firefly Aerospace** are moving closer to a historic first satellite launch from **Esrange Space Center** in Kiruna, Sweden, following a Technology Safeguards Agreement (TSA) that was signed between Sweden and the United States on June 20.*

The bilateral agreement, signed at the Embassy of Sweden in Washington D.C., provides the legal and technical framework for U.S. commercial launches from Swedish spaceports while ensuring proper handling of sensitive technology.

This agreement—only the sixth TSA signed by the United States with another country—allows SSC and Firefly Aerospace to continue building a comprehensive satellite launch service at Esrange Space Center and meet the increasing demand for orbital launch capabilities from mainland Europe.

Infrastructure development at SSC's Esrange Space Center is progressing for Launch Complex 3C where Firefly's Alpha rocket will launch. The tracking and control systems, security and depot facilities, and the Launch Control Center have already been stood up.

> *"I could not be more excited that the U.S. and Sweden have now finalized the TSA," said **Ulrika Unell**, President, Orbital Launch & Rocket Test division, at SSC. "This agreement enables us to move forward into the next important phase of the infrastructure establishment at the spaceport of our Esrange Space Center—allowing for this comprehensive launch service to soon enter the market."*

> *"Finalization of the TSA gets us one step closer to launching our Alpha rocket from Sweden and filling a void for the European satellite market," said **Adam Oakes**, Vice President of Launch at Firefly Aerospace. "In collaboration with SSC, we're building on the existing infrastructure at Esrange to move quickly and meet the responsive space needs of our NATO partners and commercial customers. This TSA agreement removes the regulatory barriers and provides customers with additional assurance that the U.S. and Sweden are committed to an orbital launch capability from Esrange."*

> *"Adding this capability in mainland Europe will strengthen Sweden's and Europe's capabilities and competitiveness in the space arena, as well as our relations with the U.S. and NATO," said **Charlotta Sund**, CEO at SSC.*

DISPATCHES

DARPA TO DEMONSTRATE REVOLUTIONARY DRONE CAPABILITIES FOR WARFIGHTERS

Artistic rendition of five performer designs for the DARPA ANCILLARY program's EVADE demonstration. Image shows vertical takeoff-and-landing position and forward flight orientation, to scale, for each aircraft.

Five cutting-edge unmanned aerial systems (UAS) are slated to begin flight testing later this month to highlight the versatility of vertical take-off and landing for UAS weighing less than 330 pounds.

The *vertical take-off and landing* (**VTOL**) aircraft for the demonstration, known as ***EVADE*** – ***Early VTOL Aircraft Demonstration*** – will boast significantly enhanced range, endurance and control compared to existing VTOL UAS of similar size. The primary objective for EVADE is to demonstrate rapid deployment of advanced UAS capabilities to the warfighter.

> *"With EVADE, our focus is on speed of development, not on first flight perfection,"* said DARPA Program Manager, ***Phillip Smith***, who is a Major in the U.S. Marine Corps Reserves and was previously deployed as an AV-8B Harrier pilot. *"The faster we can get these demonstration aircraft airborne, the quicker we can identify and resolve any issues, and ultimately, deliver game-changing capabilities to our warfighters in the field."*

The EVADE initiative accelerates DARPA's ***AdvaNced airCraft Infrastructure-Less Launch And RecoverY (ANCILLARY)*** program **Phase 2** plan, which the agency initially projected to conduct flight testing in late 2026. By prioritizing the integration of autonomy and payloads, EVADE aims to rapidly demonstrate the critical value of this UAS size class.

Furthermore, by postponing specific requirements related to maximum physical dimensions and autonomous takeoff/landing in high sea states, the program has dramatically shortened the timeline to first flight.

To further accelerate production timelines and maximize resource efficiency, all EVADE platforms leverage the Sikorsky ***MATRIX*** flight autonomy algorithms developed in DARPA's ***Aircrew Labor In-Cockpit Automation System*** (**ALIAS**) program. The autonomy software manages flight control and navigation needs for entire missions—from takeoff to landing—and will minimize the need for user interaction during long transit flights. Having standardized autonomy software across all five performers and designs also simplifies user engagement.

Complementing this, the ***Naval Surface Warfare Center Dahlgren Division's payload management software*** Battle Management System (**BMS**) is used across all platforms, interfacing directly with the Tactical Assault Kit available to every warfighter.

The integrated suite of tools will allow ANCILLARY aircraft to immediately share relevant information to individual troops at the point of need. It also effectively eliminates the need for dedicated ground control stations, thereby reducing programmatic and operational costs.

> *"EVADE is designed to democratize air power across the military, empowering the smallest operational units to directly receive and control an air asset when needed,"* **Smith** said. *"We're testing five potential mission sets and payloads to showcase the breadth of capabilities EVADE can provide: logistics, communications relay, weapons delivery, synthetic aperture radar, and ISR/RSTA (intelligence, surveillance, reconnaissance, and target acquisition)."*

The five ANCILLARY designs vary in their capabilities, but all have a minimum of 12 hours of endurance at 100 nautical miles with a 60-pound payload.

> *"I think of these aircraft as 'flying trucks,'"* **Smith** said. *"They have a high load fraction for their size and VTOL configurations and can be readily adapted to support a wide range of missions by carrying the necessary payload."*

The five performers in EVADE—***AeroVironment***, ***Griffon Aerospace***, ***Karem Aircraft, Method Aeronautics***, and ***Sikorsky***—show some of the ways these aircraft can be optimized for different strengths, including: VTOL control, airspeed, storage capacity, cruise altitude, time on station, powertrain configurations, and control methodologies.

> *"With ANCILLARY, we aim to cultivate a thriving supplier ecosystem for these drones, or similar-sized systems, that can fundamentally transform the capabilities and situational awareness available to every warfighter,"* **Smith** said. *"We're invested in the success of each UAS we're testing. The U.S. military requires a diverse portfolio of performers capable of maximizing design trade-offs to achieve success across an array of mission sets."*

To help accelerate transition to the field, the ANCILLARY team has worked the certification process concurrently with aircraft design and testing, while also ensuring the performers and their supply chains are ready for rapid, on-demand aircraft production.

> *"We're taking a full 360 look at what it takes—considering performance, cost, usability, interoperability, certification, manufacturing, etc.to ensure we rapidly deliver a game changing capability,"* **Smith** said. *"We've got five outstanding American companies we expect to be ready to accept and deliver orders at scale within the upcoming budget year."*

The under-330-pound (*150 kilograms*) maximum gross takeoff weight threshold for ANCILLARY aircraft is a pivotal factor. To date, the Department of Defense has required any drone over 55 pounds (25 kilograms) be owned by an aviation unit and operated by a fully licensed pilot, creating significant barriers to widespread fielding.

On a case-by-case basis, aircraft up to 330 pounds are now permitted to be purchased and operated by a non-aviation unit. DoD policies around drones of this size are evolving and the department is considering a policy change to allow UAS operators to fly all drones of this size without requiring special permissions.

> *"ANCILLARY fills a critical gap, bringing operational capabilities comparable to much larger—Group 4 and 5—drones to smaller units, such as Army, Marine Corps, special operations units or a ship's company,"* **Smith** said. *"These drones can be deployed without additional infrastructure or equipment, even in austere environments—offering a game-changing toolset for warfighters."*

The ANCILLARY program is structured to facilitate rapid spiral development – an iterative model that reduces risk throughout the design lifecycle of the demonstration aircraft—to improve existing features and add new capabilities. Examples include additional weather hardening, adding the autonomy algorithms and sensors necessary for takeoff and landing at sea during storms, and improving engine efficiency, among other enhancements. DARPA will not necessarily carry out all the planned development spirals, but the path is in place. DARPA intends to transition the aircraft and capabilities developed under the ANCILLARY program to the U.S. military services by the end of the 2025 calendar year.

DISPATCHES

NEWEST GROUNDBREAKING GA-ASI AUTONOMOUS JET DEMO INCLUDES SUCCESSFUL SIMULATED SHOOT-DOWN

GA-ASI MQ-20 Avenger

General Atomics Aeronautical Systems, Inc. recently completed a first-of-its-kind test involving multiple aircraft and advanced software that included a successful simulated autonomous shoot-down.

A GA-ASI-owned ***MQ-20 Avenger***® unmanned jet used the latest government reference autonomy software in an exercise involving multiple live and virtual aircraft—as well as software supplied by ***Shield AI***. As software-defined mission capabilities are evolving so quickly, it's critical that aircraft hardware be agnostic as to the origins of these upgrades.

GA-ASI's flights have underscored how compliance with what are called "*government reference architectures*" enables essential interoperability for hardware and software.

In the latest exercise, the ***MQ-20 Autonomous Collaborative Aircraft*** demonstrated that it could marshal; do dynamic midair station-keeping with several real aircraft; patrol a simulated combat area; make decisions autonomously; team with human command-and-control; and intercept two live aircraft autonomously—resulting in a simulated successful missile shot against the live targets.

The "*live-on-live*" event using representative ***Group 5 unmanned aerial vehicles*** (**UAVs**) proved how mature autonomy is today for future platforms.

Another feature of the test was a mid-flight transition from the government-provided suite of software to Shield AI's ***Hivemind*** autonomy software, which subsequently performed a similar mission profile. This rapid switch aboard the MQ-20 took place without affecting aircraft stability or mission continuity. This demonstrates how standardized reference architectures are streamlining hardware and software integration, even from different vendors.

The test offered meaningful implications for the future of autonomy development. By adhering to a shared reference architecture, this model supports a flexible autonomy "*app store*" concept. It allows the government to incorporate capabilities from a broad vendor ecosystem without being tied to any single supplier. It promotes modularity, supports ongoing innovation, and enables more rapid deployment of autonomy features that align with the speed and agility often seen in commercial software development.

AURIA AWARDED USSF JAM PROTOTYPE IN SUPPORT OF U.S. + ALLIED WARFIGHTERS

Auria has received an $8.1 million award of the Joint Antenna Marketplace (JAM) prototype by U.S. Space Force (USSF) Space Systems Command (SSC).

Auria is one of two companies that will each develop and deploy a secure, cloud-based application to provide dynamic satellite operations, enabling faster, more adaptive, and mission-responsive satellite contact management in support of the USSF's growing mission demand.

The JAM prototype was awarded through a ***Space Enterprise Consortium*** (**SpEC**) *Other Transaction Authority* (**OTA**) and seeks to establish a flexible global framework that integrates satellite ground entry points with cloud data centers for real-time satellite command and control. At its core, Auria's solution streamlines contact scheduling, significantly enhancing ***Space Control Network*** (**SCN**) capabilities to enable satellite contacts within seconds and dynamic replanning as mission priorities shift.

The prototype integrates mission-proven, ***commercial off-the-shelf*** (**COTS**) products deployed on a secure cloud infrastructure with enforced ***Zero Trust Architecture*** (**ZTA**) to optimize coordination between ***Satellite Operations Centers*** (**SOCs**) and ***Antenna Providers*** (**APs**). This approach enables adaptive resource allocation, simplified operational workflows, and scaling to meet future demands without the need for architectural rework.

This system will enhance the operational efficiency of U.S. and allied satellite operations by integrating both commercial and government satellites, offering secure, scalable solutions, and a secure boundary for operations while maintaining high flexibility in support of U.S. and allied lethal fighting forces.

> *Karina Arushanyan, Executive Vice President at Auria, said, "This award underscores our commitment to delivering innovative solutions that address the Space Force's pressing challenges, including the need to enhance the capacity of satellite operations to support the growing number of missions. Our team is grateful to Space Systems Command for their trust, and we are excited to demonstrate how our adaptive scheduling and secure, scalable technologies can meet the evolving demands of satellite operations."*

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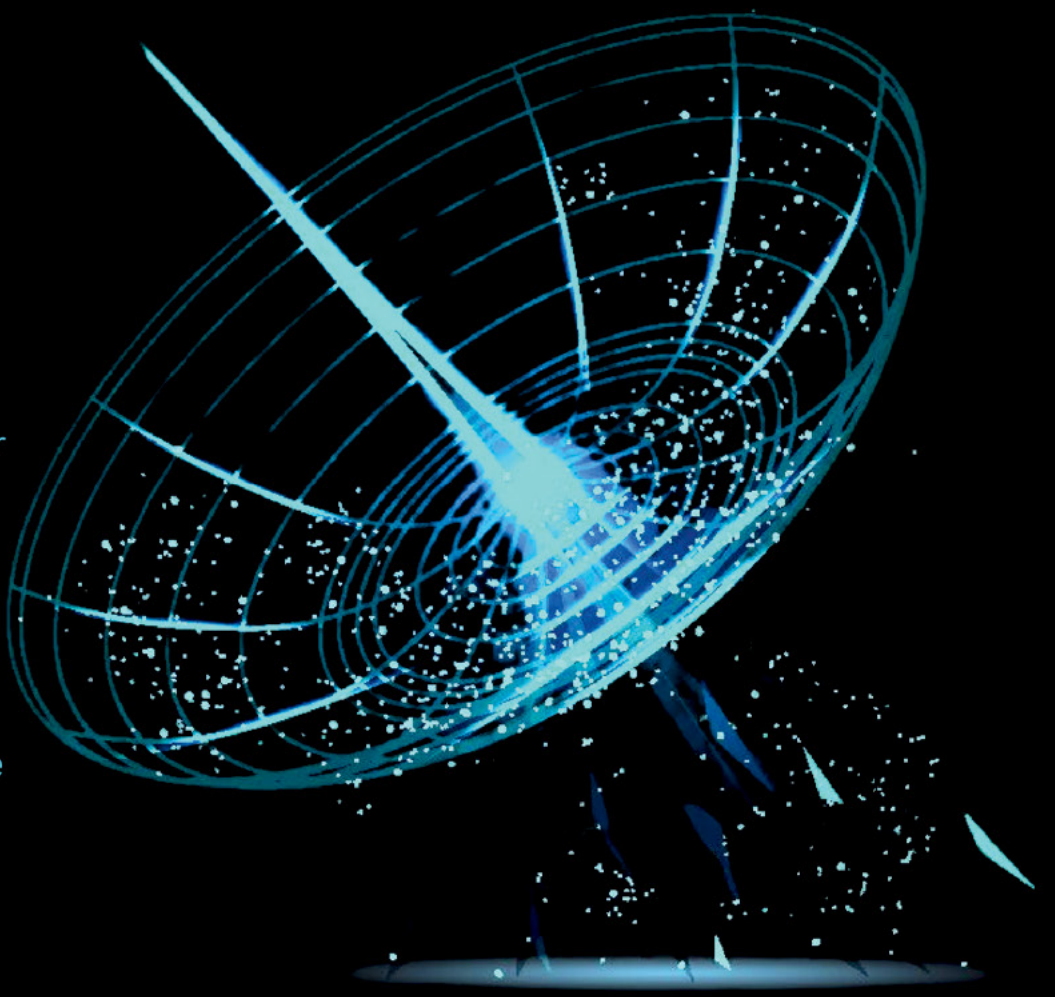

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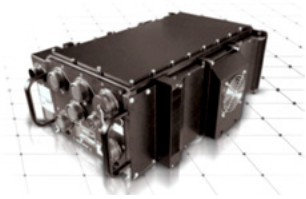
DISPATCHES

CURTISS-WRIGHT AWARDED $31 MILLION IDIQ CONTRACT BY THE U.S. NAVY TO SUPPLY AIRBORNE MISSION PROCESSORS FOR THE TRITON UAV



Curtiss-Wright Corporation* will provide** *Airborne Mission Processors* **(**AMP**) *and AMP spare parts in support of PMA-262 Persistent Maritime Unmanned Aircraft Systems' MQ-4C Triton aircraft and PMA-290 Maritime Patrol and Reconnaissance Aircraft under a $31 million firm-fixed-price indefinite delivery, indefinite quantity (IDIQ) contract awarded by the Naval Surface Warfare Center (NSWC).

The contract also includes *Total Lifecycle Management*™, training, and engineering services in support of the AMP. Work on the contract will be performed by Curtiss-Wright's *Defense Solutions Division* and is scheduled to run through September of 2029.

The AMP features Curtiss-Wright's industry-leading MOSA modules, including the VPX6-1959 single board computer, CHAMP-XD2M High Memory Capacity Multi-Core HPEC Module, VPX6-684 Network Switch, and VPX6-4943 GPGPU board, as well as the front panels, fan control board, and chassis.

Curtiss-Wright previously announced that it is providing and servicing MOSA-based *Keyed Broad Area Maritime Surveillance Airborne Recorder* (**K-BAR**) *Network Attached Storage* (**NAS**) solutions supporting MQ-4C Triton and future PMA-290 aircraft, including chassis, docking stations, removable storage modules and lab cable sets.

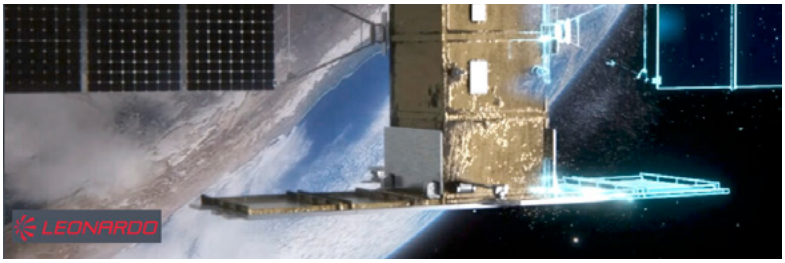
> *"We are very proud to have been selected by the Naval Surface Warfare Center to provide our rugged airborne mission processor technology, total lifecycle management and support services for Naval manned and unmanned aircraft programs," said* ***Brian Perry****, Senior Vice President and General Manager, Curtiss-Wright Defense Solutions Division. "The AMP system was derived from the legacy Airborne Mission Management System previously qualified and deployed on the Triton UAV platform. Through only minor enhancements, Curtiss-Wright was able to significantly increase processing capability in the aircraft, enabling enhanced ISR features, and the ability to host Navy Minotaur software platforms."*

ESA TEAMS WITH LEONARDO AGAINST SATNAV JAMMING

Uninterrupted access to satellite navigation is essential in our modern world, but it is threatened daily by external interference, such as jamming and spoofing.

New technologies and concepts can help increase the resilience of our satellite navigation solutions. ***ESA*** and ***Leonardo*** recently embarked on a joint project to explore smart antennas powered by *Machine Learning* (**ML**) to block unwanted signals.

Through its different Navigation programs, ESA is actively exploring innovative technologies to increase resilience of *Global Navigation Satellite Systems* (**GNSS systems**). ESA and Leonardo (IT) have signed a contract to research and develop ML techniques to steer antenna arrays to block out unwanted signals. The project will be developed under the umbrella of ESA's ***Navigation Innovation Support Program*** (**NAVISP**).



Conventional antennas catch signals from all directions. A Controlled Reception Pattern Antennas (CRPAs) antenna can focus on signals coming from specific satellites and ignore signals or interference coming from other directions. These types of antennas are used in satellite navigation receivers to block jamming and counterfeit signals. They rely on electronics that control how they adjust their patterns (a concept known as "beamforming").

Under contract with NAVISP, Leonardo together with ELT Group as subcontractor, will explore the reduction of the distance between the antenna elements to reduce the size and weight of the antenna array, and the use of Machine Learning to determine the best antenna setup and adjust the settings faster. This approach will lead to smaller, smarter and more effective antennas, especially useful in space-limited environments such as aircraft.

The project covers identification of the smarter algorithm for signal blocking, building and testing a real-time receiver demonstrator based on the selected algorithm, and comparing it to conventional larger antennas. The aim is to reach a Technology Readiness Level (TRL) of 4, delivering a lab-tested technology by the end of the project, in two years.

ESA navigation specialists are supporting cutting-edge European companies in the development of new PNT technologies and services – in support of Europe's industrial competitiveness, autonomy and leadership. The result is ESA's Navigation Innovation and Support Programme, NAVISP. NAVISP is looking into all kinds of clever ideas about the future of satellite navigation and positioning, navigation and timing: ways to improve satellite navigation, alternative positioning systems and new navigation services and applications.

DISPATCHES

ASTRION'S AXIENT AMONG OTHER FIRMS SELECTED FOR USSF STEP 2.0 CONTRACT TO ACCELERATE MILITARY SPACE INNOVATION

Astrion, through its legacy company Axient LLC, has been selected by the U.S. Space Force (USSF) as one of 12 awardees on the Space Test Experiments (STEP) 2.0 program.

STEP 2.0, a 10-year, multi-award Indefinite Delivery/Indefinite Quantity (IDIQ) contract worth up to $237 million, aims to advance military space technology, reduce costs, and streamline processes by harnessing the latest in commercial innovation.

Astrion and the other contract awardees will bid on task orders to build modular satellites and integrate them with various experimental payloads, enabling USSF to conduct tests on emerging technologies on-orbit.

Astrion has a long history of partnership with USSF Space Systems Command, supporting critical programs including the National Security Space Launch, Missile Warning, Global Positioning, and New Entrant Certification missions.

In addition, for nearly two decades Astrion teammate Orion Space Solutions, an Arcfield Company, has developed trusted space-based solutions for the national security and intelligence communities.

Administered by ***USSF's Space Systems Command's (SSC) Department of Defense (DoD) Space Test Program (STP***), STEP 2.0 is expected to issue its first delivery order in January 2026.

Other organizations selected for the STEP 2.0 contract include Blue Canyon Technologies, General Atomics, Lockheed Martin Corp., Loft Orbital Federal, Lynk Global, Orbit Systems, Spire Global Subsidiary, Turion Space Corp., Tyvak Nano-Satellite Systems, Utah State University Space Dynamics Lab, and York Space Systems.

> ***Dan Benjamin**, Astrion's Executive Vice President and General Manager, Space, said, "We look forward to this opportunity to build on our space integration history delivering our extensive experience, bold ideas, and unmatched execution in support of STEP 2.0."*

MAXAR + SAAB ENGAGE IN A PARTNERSHIP TO DEVELOP MULTI-DOMAIN BATTLESPACE SOLUTIONS

Maxar Intelligence has engaged in a strategic partnership with Saab to jointly develop next-generation multi-domain battlespace solutions, with a specific focus on advanced space-based C5ISR systems (Command, Control, Communications, Computers, Cyber, Intelligence, Surveillance and Reconnaissance) for the digital battlefield and GPS resilience for autonomous drone systems—these solutions will help Europe accelerate the development of more advanced sovereign space-based capabilities.

Through a Teaming Agreement, Saab can access Maxar's geospatial intelligence and advanced mission products such as Raptor, as well as draw upon the company's technical expertise. The deal expands on Maxar's existing relationship with Saab, which has most recently focused on deploying Maxar's Raptor product for autonomous drone navigation and operation in GPS-denied environments.

The agreement builds on successful joint testing of Maxar's Raptor software product. The technology was tested with Saab in multiple countries, including a demo in real-world conditions where the product demonstrated the ability to accurately extract ground coordinates within an accuracy of less than 2 m.

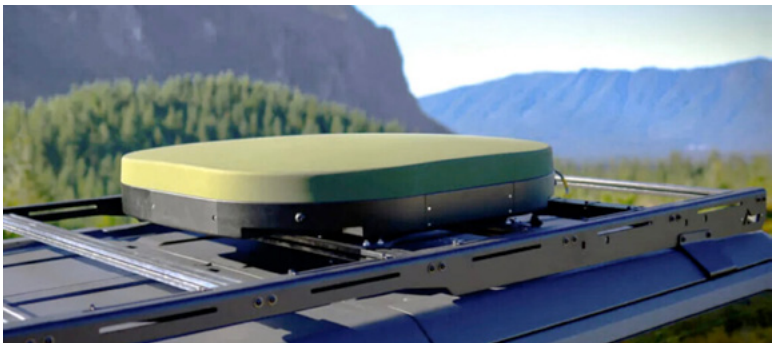
Maxar's geospatial intelligence products will also help Saab build more advanced C5ISR solutions through secure access to the most advanced commercial satellite imagery in near real-time. Maxar's global 3D terrain data unlocks unique opportunities for real-time multi-source data fusion, enabling truly joint multi-domain operations, seamless interoperability between autonomous systems and enhanced mission coordination.

> *"This partnership will bring together Maxar's industry-leading geospatial intelligence products with Saab's highly advanced defense systems to solve some of the most complex tactical and operational challenges across the battlespace today—from powering more intelligent, real-time multi-domain command and control systems to helping autonomous systems overcome GPS jamming," said **Dan Smoot,** Maxar Intelligence CEO. "The deal also reflects the growing realization that geospatial intelligence can go beyond powering analyst workflows to powering mission-focused software products deployed at the tactical edge. And, most importantly, our partnership with Saab underscores Maxar's deep commitment to supporting our international customers as they continue to build up their sovereign defense capabilities, both in Europe and across the globe."*

> *"Our collaboration with Maxar represents a significant leap forward in our commitment to use information from the Space domain and thereby enhancing the strategic defense capabilities of Europe and beyond," said **Görgen Johansson**, head of Saab's Dynamics business. "By integrating Maxar's high-end geospatial insights and satellite capabilities with our advanced defense systems, we are setting new standards in the effectiveness and reliability of military operations across multiple domains."*

DISPATCHES

KYMETA'S BREAKTHROUGH MULTI-BAND ANTENNA REDEFINES CONNECTIVITY



In a world-first, Kymeta, recently announced a major technological leap: simultaneously operating across both Ku and Ka satellite bands in a single, compact antenna—laying the technical groundwork to enable seamless connectivity across satellite networks.

This breakthrough marks a significant milestone for the SATCOM industry, ending a legacy of siloed SATCOM limitations. Kymeta has now advanced the ability to interoperate across satellite networks in different bands and different orbits, in a move to make satellite as seamless and ubiquitous as cellular.

The ability to connect to both Ku- and Ka-band beams offers immediate and significant benefits—unlocking higher bandwidth, faster data rates, and more ***bits per second*** (**bps**). This also enables continuous connectivity, a vital component toward making advanced AI at the edge a reality. The breakthrough will now allow manufacturers to build the advanced tech of the future where this is a requirement.

This achievement meets the demands of global militaries. The U.S. Space Force vision whitepaper in 2020 outlined the requirement to support multi-bands, orbits, waveforms and a "*network of networks to support responsive and agile operations*."

Along with traditional **C2** (***Command and Control***) functions, autonomous applications such as **unmanned surface and aerial vehicles** (***USV, UAV and UGVs***) require strong, reliable connectivity to operate and be competitive on the battlefield. This serves as a network hub and backhaul for downstream communication using MANET, mesh and cellular networks that will enable autonomous system operations at scale.

Relying on a single network connection is insufficient to meet the complex and evolving needs of modern global forces, making multi-band beam switching a strategic necessity. This capability allows for simultaneous and redundant communication links, which are critical for maintaining operational integrity in contested or jamming-prone environments while on the move.

The technology was successfully demonstrated and validated at Kymeta on April 22, 2025. This achievement was made possible by Kymeta's unique metamaterials antenna surface.

Until this point, interoperability in the Ku and Ka bands has been possible only with ***Electronic Steered Antennas*** (**ESA**) using multiple physically separate antennas, which proves problematic due to the size and power usage required to operate. This technological disruption by Kymeta allows connectivity in both bands in one single antenna, giving ***space efficiency, low power consumption, and low cost*** (**SWaP-C**).

The physical area of Kymeta's multi-band antenna aperture consisting of four, interleaved sub-arrays—Ku transmit, Ku receive, Ka transmit and Ka receive—allows for simultaneous and independently controlled Ku and Ka full duplex beams from its metamaterials surface. Structuring the antenna in this way, and pairing it with advanced AI algorithms for intelligent routing, enables frequency reuse and alleviates spectrum contention via Kymeta's narrower receive and transmit beams. These beams are more focused and operate at higher directivity, promoting spectrum efficiency and interference mitigation, such as GEO / LEO beam straying, jamming and adverse weather like rain fade and atmospheric losses.

> *Bruno Fromont, Intelsat CTO, said, "Transformative technology milestones like this spark a catalytic shift across an entire landscape. Kymeta's ability to unify Ku- and Ka- band connections through a single mobile antenna is a foundational leap toward combined satellite networks, making communication as seamless and automatic as the cellular networks we use every day. This success is changing the game."*

> *Ian Canning, president and CEO of Eutelsat America Corp + OneWeb Technologies (EACOWT), said, "The U.S. DoD and defense forces around the globe require increasingly sophisticated, flexible and secure communications, which includes the need for high-performance, multi-band, multi-orbit connectivity from a single antenna. Kymeta's ESA platform, reflecting their continued investment in innovation, is truly disruptive, and brings multi-orbit and multi-band capabilities into the modern era. I look forward to collaborating with Kymeta to develop world class satellite communication products that will open the door to the resilient communications required in the modern battlefield."*

> *General (ret) Paul J Kern, former Commanding General, Army Materiel Command, currently Senior Counselor, The Cohen Group, said, "Kymeta's breakthrough in seamless switching between Ku and Ka satellite bands delivers the kind of resilient, always-on communications that advanced military platforms and autonomous systems demand. This is a major step forward in preparing and equipping our forces for the modern battlefield. This capability would have made an enormous difference to my operations in the desert of Iraq."*

> *Kymeta Chief Scientist, Ryan Stevenson, said, "At Kymeta we've never followed convention. What began as novel metamaterials technology is now a proven engineering foundation - first brought to market in 2017, and now central to this groundbreaking achievement. We've turned breakthrough physics into a powerful, trusted toolkit. Using this toolkit we have now addressed the most challenging requirement in satellite communications. We have cracked the code on seamless multi-orbit, multi-band connectivity - and have set the standard for next-generation satellite communications."*

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DISPATCHES

NAL RESEARCH'S NEW PRODUCTS USE IRIDIUM'S ENHANCED SBD® SERVICE FOR GOVERNMENT AND MILITARY USERS

NAL Research, which delivers resilient wireless and APNT solutions, announces the integration of Enhanced Short Burst Data (ESBD), leveraging the next generation version of Iridium's Short Burst Data® (SBD®) service, into its industry-defining SHOUT trackers. The incorporation of this advanced two-way data transmission solution will bolster secure communications for U.S. Department of Defense, federal, state/local, and approved allied government users.

The Enhanced SBD solution increases transmission security (TRANSEC) through the use of multiple cutting-edge techniques that ensure users can operate safely in all environments.

> *"This next-generation service provides many advanced capabilities compared to the traditional Short Burst Data (SBD) service," said NAL Research Director of Connectivity Solutions, Bart Polizotto. "Through ESBD and NAL's reliable low size, weight, and power (SWaP) solutions, government and military users can benefit from greater warfighter safety, tactical operations velocity, and more secure communications."*

In addition to offering secure, on-demand messaging and data transmission globally, ESBD increases transmission rates and enables larger data payload sizes to support a broad range of missions.

ESBD airtime service is provided by the United States Space Force (USSF) Enhanced Mobile Satellite Service (EMSS) and is backwards compatible with the existing SBD service.

NEW HAWKEYE 360 SATELLITE CLUSTER SUPPORTS MISSION SUCCESS FOR GOVERNMENT AND ALLIED PARTNERS IN COMPLEX ENVIRONMENTS

***HawkEye 360 Inc.* has made successful contact with its Cluster 12 satellites following their launch from New Zealand aboard a *Rocket Lab Electron* rocket— Cluster 12 was launched on June 26 (ET) / June 27 (NZT) and includes three formation-flying satellites designed to detect, characterize, and geolocate radio frequency (RF) signals.**

The mission also included Kestrel-0A, an experimental satellite designed to evaluate emerging capabilities and inform future technological advancements.

As the first HawkEye 360 cluster to operate in a dawn/dusk sun-synchronous orbit (SSO), Cluster 12 fills a critical coverage gap in polar orbit revisit and expands the company's ability to deliver timely RF insights in strategically significant regions.

The cluster continues the proven design of Clusters 9 through 11 and includes a demonstration of a Ka-band downlink to evaluate higher throughput for potential future use.

Cluster 12 further reinforces HawkEye 360's commitment to advancing space-based RF capabilities in support of global security and situational awareness.

The company continues to deliver multidimensional signals intelligence that equips allied governments and intelligence organizations with critical knowledge for informed, timely decision-making.

> *"Successful contact with Cluster 12 is the result of meticulous engineering, rigorous testing, and seamless coordination with our launch and mission partners," said **Lorin Metzger**, Senior Vice President of Engineering at HawkEye 360. "We're proud of the team's work in ensuring a smooth deployment and look forward to bringing this new cluster fully online in the coming weeks."*

> *"Cluster 12 strengthens our mission to deliver timely, defense-relevant RF insights that empower our government and allied partners operating in complex, dynamic environments," said **Patrick Zeitouni**, Chief Strategy Officer at HawkEye 360. "By extending coverage through a new orbital plane, this launch reflects our continued leadership in innovation and strategic growth, ensuring our customers have the trusted knowledge they need to achieve mission success."*

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— SPACE SYSTEMS COMMAND BRIEFING —

OPERATIONAL TEST AND TRAINING INFRASTRUCTURE (OTTI)

Trained, Tested and Lethal

Author: Lisa Sodders, Space Systems Command Public Affairs

In a time of increasing threats to the space-based assets of our Nation and its allies, U.S. Space Force Guardians need realistic, threat-based training that out-paces the United States' adversaries.

Space Systems Command's (SSC) Operational Test and Training Infrastructure (OTTI) is ramping up to do just that.

Colonel Corey Klopstein

"*Space operator training previously focused on Guardian proficiency to operate a particular system – GPS satellites, receivers and ground systems, for example – in mostly benign environments*," said *Colonel Corey Klopstein*, program executive officer for SSC's OTTI organization. "*Today, our Guardians must operate space systems in dynamic, contested environments that are rapidly evolving. We need to ensure U.S. Space Command has the ability to control the domain, not just operate in the domain, so our Guardians can gain and maintain space superiority*."

SSC's OTTI organization, which stood up in May of 2023, is responsible for integrating and synchronizing the acquisition, development and sustainment of integrated test and training capabilities to ensure the delivery of fully burdened force designs to the Space Force.

Its area of responsibility encompasses the collection of distributed, enterprise-wide test and training systems and processes that establish and sustain combat readiness across the spectrum of conflict. OTTI systems include live ranges, models and trainers, model opposing forces to train against, synthetic test and training environments, and secure facilities and assured networks.

"*When you look at the OTTI Strategic Requirements document, a key part of it is the service's recognition that the previous way we did space operations is no longer sufficient in our current threat environment*," said *Lt. Col. Scott Peeples*, materiel leader for Digital Test and Training for OTTI. "*You need a place to train that can replicate threats to train against, you need to test systems against surrogates for those threats – an immersive arena to achieve space dominance*."

OTTI is a hybrid organization. It is one of SSC's six Program Executive Offices and its personnel come from SSC, the acquisition field command of the U.S. Space Force.

OTTI requirements and funding come from ***Space Training and Readiness Command*** (**STARCOM**), the field command responsible for USSF's education, training, and testing.

Space Training and Readiness Command (STARCOM)

The OTTI Integrated Program Office is jointly manned by STARCOM and SSC personnel.

"*OTTI provides Guardians model-based mission environments that simulate real world scenarios to test and train, to build both proficiency and confidence against evolving threats*," said *Major John Simkus,* OTTI's Digital Test and Training Synthetic Environments branch chief.

"*When Guardians show up to a weapon system, they use a procedures trainer to learn the weapon system*," Simkus explained. "*This has historically been an emulation of the 'button-ology' needed to operate the system. It also has a handful of typical anomalies, so operators can learn appropriate responses*."

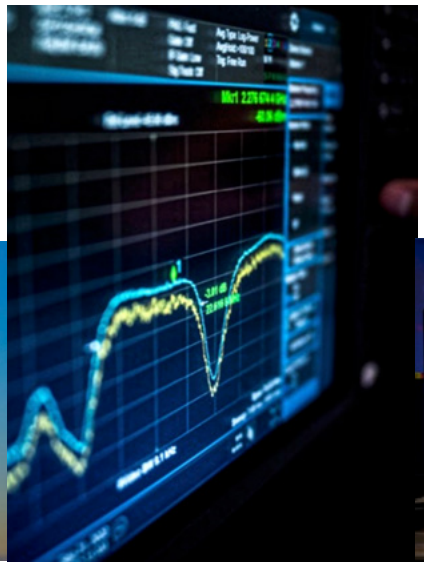
"*OTTI is charged with developing an integrated system that emulates what a satellite operator would experience when the system is being attacked by a red threat*," said *Lexie Inman,* synthetic environments program manager for OTTI's Digital Test and Training team. "*The system would allow operators to protect their own systems. It would also train multiple USSF systems operators simultaneously, as the response would require coordinated operations involving* ***National Space Defense Center*** (**NSDC**) *and the weapon system operators*."

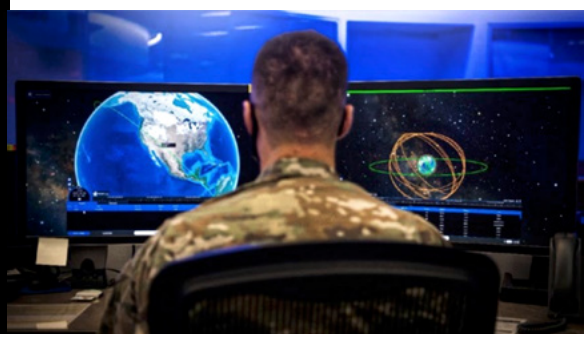
Some of the challenges include: high fidelity red threat models; accurate blue models; and ensuring coordinated operations at multiple locations and multiple security levels.

Weapons and tactics officers for each weapon system is critical to development. Several thousand operators across SpOC are among the target audience for this training.

"*The ideal state is highly trained and prepared forces capable of achieving space superiority under the Commander of U.S. Space Command*," Simkus said.

Within OTTI, there are four materiel leaders: *Lt. Col. Curtis Babbie*, Physical Test and Training; *Lt. Col. Scott Peeples*, Digital Test and Training; *Lt. Col. Kade Ewert,* Infrastructure; and *Lt. Col. Jessica Mahoney*, Readiness.





"*Test and training is an essential enabler; with a focus on making Guardians highly skilled and efficient with respect to their mission weapon systems*," Peeples said. "*Someone's going to have to test the electronic warfare systems. Someone's going to have to train the electronic warfare operators*."

Digital Test and Training

When it comes to training tomorrow's Guardians, "*how real is real*?" becomes a critical factor. Peeples said OTTI is taking a dual-track approach to training using both low-fidelity and high-fidelity models.

Models reflect our knowledge/understanding of the problem. To that end, we are continuously learning," Peeples said. *"OK, I told my satellite to move this much on orbit, and I observed it, and it moved that much. If I do the same thing in my simulation, did the satellite behave the same way? And if it didn't, I need to update the model to more closely reflect reality.*

"So, you do a few event repetitions on orbit and you collect data to 'buy down' risk for your high-fidelity model to maximize the confidence that the model is close to accurate. You gain confidence that your high-fidelity models actually represent your space vehicle. Critical elements of that high fidelity model are used to construct the medium-fidelity simulations so you can train hundreds of Guardians all at the same time. You iterate on these models as you learn more and more about the actual capabilities of the design."

Models with lower fidelity, which are easier to model, are used for training, in a partnership with the ***392nd Combat Training Squadron***, which has a medium-fidelity distributed simulation environment used to support Space Flag Exercises.

What are the decisions to make in a space war scenario? Peeples explained, "*You're going to be looking at a digital Earth with some representation of orbiting satellites. The crew responsible for a mission would face a certain set of threats and would need to be trained on how to respond to those threats to optimize survival and continued mission*."

But OTTI also has a need for high fidelity models and is currently working with the U.S. Air Force and U.S. Navy to create those models, based on their framework, which includes systems such as virtual F-35s and F-22s.

"*When that pilot is in that simulator 'flying,' their inputs are going to a rack of servers that process the entire flight software in an F-35*," Peeples said. "*It's radar, it's Inertial Navigation System (INS), it's fire-control system, and eight of them are flying together in a combined scenario to discover whether a TTP (Tactics, Techniques, and Procedures) that we want to do, will work with the F-35 and F-22 in a wartime scenario*.

"*We need to have a similar high-fidelity environment for the same reasons F-35 has one*," Peeples added. "*We cannot perform many TTPs on orbit because it's cost prohibitive, because of policy limitations, or to preserve the element of operational surprise until needed. We need this Digital Range to allow operators to execute and validate that TTPs will be useful against Intel-validated threats*."

Physical Test and Training

The digital environments are just one element of the OTTI portfolio. "*The live range is necessary to ensure USSF can safely exercise operations of new systems and collect essential test information to validate performance. That test information is needed to validate the digital models*," Lt. Col. Babbie said.

Delta 11, the Space Force's Range and Aggressors Delta, is responsible for ensuring safe operations of new capabilities by exercising range control and safety. They support operational testing of systems through a network of ground and space sensors capable of "*watching*" an on-orbit event, "*capturing and characterizing*" an electronic emission, and other activities needed to witness an on orbit event.

Delta 11 uses systems procured by the OTTI Integrated Program Office that range from on-orbit sensors, ground-bases optics, radars, as well as cyber ranges. These systems primarily support testing but also are used for training Guardians.

"*We are also working with lab and university mission partners to validate some of the foundational elements of our models*," Babbie said. "*While it gets technical, in some instances, we need to get scientific evidence to ensure we're anchoring our models correctly. These mission partners are all over the U.S.*"

Infrastructure

To efficiently exchange information, both within USSF and the Joint Force, USSF must have the correct infrastructure in place to accomplish the tasks. Infrastructure consists of the right facilities, equipment, communication systems, at the right security levels needed to execute the test and training mission. Many teams require access to data to efficiently exchange it, driving OTTI to efficiently manage the infrastructure procurement through a dedicated materiel leader, *Lt. Col. Ewert*.

"*We are working across the Space Force and mission partner community to ensure we understand key infrastructure needs, and the most efficient and effective way to procure those critical elements to ensure USSF is successful*," said Ewert.

Readiness

All the systems delivered to STARCOM must be sustained, and *Lt. Col. Jessica Mahoney* is responsible for that, as well as ensuring that STARCOM's Exercises and Wargames materiel needs are met.

"*We've been adding more and more to STARCOM's "kit" every day*," Mahoney said. "*Earlier this year, SSC turned over operations of several Long Duration Propulsive EELV Secondary Payload Adapter assets to STARCOM for the purposes of on-orbit training and experimentation*.

"*STARCOM has also system accepted multiple Transportable Range Operations Centers (TROCs) used for electromagnetic operations training and testing in multiple theaters*," Mahoney added. "*As STARCOM's operational footprint of Range and Advanced Training assets* like these grows, I'm responsible to ensure those systems are sustained."

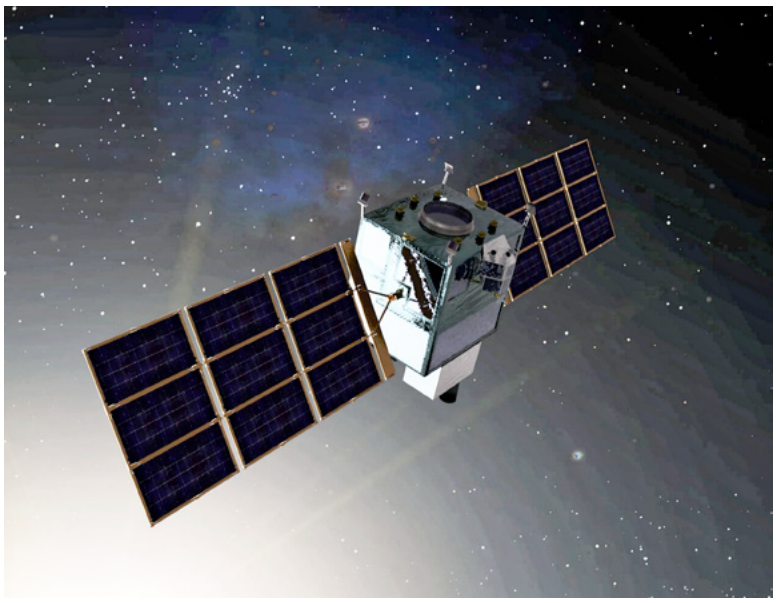
Delivering "wins" for USSF

In addition to defining what a modern test-and-training organization should look like, OTTI has also achieved numerous deliverables in the past two years, including orchestrating several **Reverse Industry Days** to learn what commercial space industry partners have to offer.

In less than four months, OTTI stood up a cyber range for space operators with help from the ***U.S. Air Force's 318th Cyberspace Operations Group*** in San Antonio. The cyber range supported 7 exercises in the first year, and over 50 the second year.

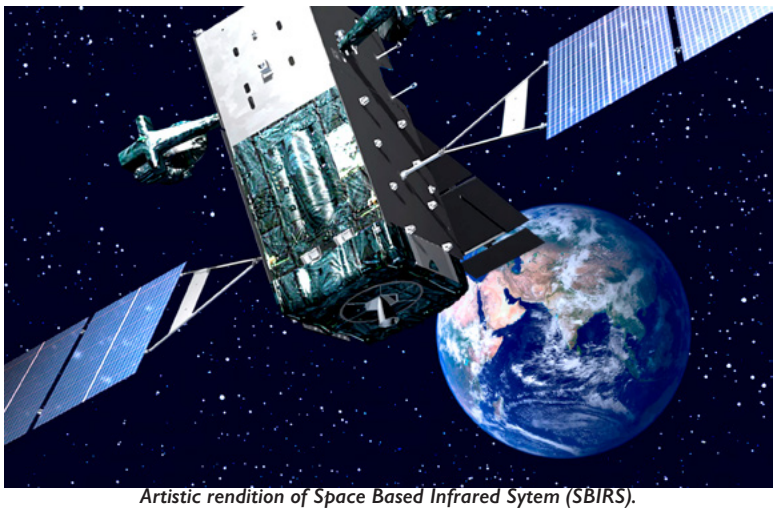
OTTI deployed its ***Transportable Range Operations Center*** (**TROC**) to ***USINDOPACOM*** at **Travis Air Force Base** in July of 2024 to support combatant command joint exercise. The TROC supported the ***Pacific Deterrence Initiative***'s (**PDI**) series of ***Pacific Multi-Domain Training and Experimentation (PMTEC) Exercises***.

In November 2024, the OTTI team delivered new missile warning training capabilities to Delta 4, which manages three ***Overhead Persistent Infrared*** (**OPIR**) satellite constellations.



Artistic rendition of a Next-Gen OPIR) polar satellite.
Image is courtesy of Northrop Grumman.

OTTI also delivered a major critical update to the ***Space-Based Infrared System*** (**SBIRS**) mission trainer at **Buckley Space Force Base** to upgrade existing readiness training capabilities on to-be- delivered operational software for ***Enhanced SBIRS Operational Agile Response*** functionality.



Artistic rendition of Space Based Infrared Sytem (SBIRS).
Image is courtesy of Lockheed Martin.

This release keeps pace with System block upgrades and builds upon the existing mission trainer, enabling new status monitoring and ground processing functionality for Mission and Ground Control operators as well as improving trainer crew performance to address more event-driven scenarios in real-world based missile warning.

Delta 4 Guardians validated performance on the latest release and continue to provide feedback ahead of the next release that will further improve readiness capabilities reflective of needs-based operational changes. These capabilities directly support ascension qualification and ***2 Space Warning Squadron*** Guardian combat training via threat-informed continuous training in alignment with the CSO's vision.

As part of a larger multiple modeling and simulation integration effort, OTTI in December of 2024 performed, for the first time, the integration of a mission trainer with a surrogate red threat model, developed by ***Space Dynamics Laboratory*** (**SDL**).

Using this mission trainer as a use case, the OTTI team was able to use modeled SATCOM to simulate a ***Rendezvous and Proximity Operation*** against a red threat. Additional capabilities continue to be developed and refined to meet user needs.

OTTI is also leading a new initiative to use commercial vehicles to support test and training needs. In February of 2025, OTTI released a ***Request for Prototype Proposal*** (**RPP**) to integrate commercial space vehicle maneuvers into range activities. Vendors will maneuver space vehicles to provide a live, realistic test and training environment.

OTTI engaged directly with potential offerors to discuss project background, explain technical requirements, and answer industry's questions in a "*Project TALX*" event hosted by ***SSC's Space Enterprise Consortium*** and ***NSTXL*** in March of 2025. Project TALX was widely attended by industry—115 participants from 78 unique organizations—enabling the government to effectively advertise the RPP, hedge against delays, and generate maximized competition.

This novel application of commercial technology will augment the use of organic ***Space Vehicles*** (**SVs**) and enable Guardians to test ground sensors and train ***Space Domain Awareness*** (**SDA**), without the costs associated with acquiring SVs or expensive data rights agreements.

Also in March, OTTI acquired and integrated a first-of-its-kind ***Peregrine Tactical Command and Control*** (**C2**) training environment with the ***Raptor*** operational toolset. This effort provided Delta 9 warfighters with the ability to execute their ***Orbital Warfare*** (**OW**) mission.

The on-site workstations represent the first-ever OW training environment and enabled Delta 9 warfighters to support readiness events and train instructors ahead of full use of the simulators. The delivery of the Peregrine simulator with Raptor software tools significantly increases readiness by enabling Delta 9 warfighters to train Tactical C2 operations against on-orbit threats. This effort leveraged existing operational products and training capabilities, providing an integrated solution to directly support Delta 9's need to generate combat-ready orbital warfare forces.

"*The OTTI team has accomplished amazing feats in a short amount of time, delivering the test and training capabilities our Guardians need. We're driven to ensure every system is tested, every tactic is validated, and every Guardian is ready*," Klopstein said.

Space Systems Command is the U.S. Space Force field command responsible for acquiring, developing, and delivering resilient capabilities to outpace emerging threats and protect our Nation's strategic advantage in, from, and to space. SSC manages a $15.6 billion annual space acquisition budget for the Department of Defense, working with joint forces, industry partners, government agencies, academia, and allied nations.

For more information, visit ssc.spaceforce.mil and follow @USSF-SSC on LinkedIn.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RESTORING CRITICAL COMMUNICATIONS AFTER HURRICANES HELENE AND MILTON

Intelsat and Help.NGO deliver rapid-response connectivity in the wake of back-to-back storms

Author: Karan Anand, Director of Product Management for Networks Enterprise, Intelsat

Customer Challenge

When Hurricanes Helene and Milton struck the southeastern United States in quick succession in 2024, they left widespread devastation across Florida, Georgia, and North Carolina.

Downed power lines, collapsed cellular infrastructure, and flooded roadways hindered emergency responders' ability to coordinate and communicate during the crucial early hours of the disaster response. With countless residents displaced and critical infrastructure offline, real-time connectivity was essential to ensure situational awareness, deploy resources, and save lives.

Help.NGO—a longtime partner of ***Intelsat***—was among the first on the ground. They needed a highly resilient, mobile communications solution that could be quickly deployed, even in the most remote and damaged areas.

The solution needed to be intuitive enough for non-technical responders to use and reliable enough to support sustained operations through search and rescue, relief, and early recovery efforts.

How Intelsat Helped

Leveraging a decade-long partnership, Intelsat and Help.NGO rapidly mobilized a multi-orbit, ***satellite communications*** (**SATCOM**) solution.

The team deployed a combination of ***Geostationary*** (**GEO**) and ***Low Earth Orbit*** (**LEO**) services using Intelsat's high-capacity GEO network and ***Eutelsat OneWeb***'s low-latency, LEO coverage.

This hybrid approach ensured uninterrupted connectivity—even in the most challenging conditions.

Key technologies included...

Kymeta Hawk™ u8 terminals, donated by ***Kymeta***, which provided comms-on-the-move and on-the-pause functionality for response teams. These units were pre-configured and equipped with active SIM cards, offering higher speeds where cellular service remained available.

Intelsat Portable 30 and ***Starwin FL30P-E Autopointing*** antennas, which were lightweight, easy to deploy, and operated via battery power—making them ideal for responders traveling on foot into hard-to-reach areas.

End-to-end support, with Intelsat's ***Network Operations Center*** (**NOC**) and Kymeta's technical teams offering 24/7 assistance to ensure optimal performance throughout the mission.

The Benefits

The combined efforts of Intelsat, Help.NGO, and Kymeta enabled first responders to restore connectivity within hours of landfall—providing a lifeline for coordination, resource allocation, and public safety communications.

Relief workers reported that the simplicity of setup and reliability of service allowed them to focus fully on life-saving operations, without needing specialized training or technical troubleshooting in the field.

Crucially, enabled by Intelsat's satellite connectivity, Help.NGO deployed advanced situational awareness and communications tools built to run securely and efficiently on the ***Amazon Web Services*** (**AWS**) cloud.

These cloud-based solutions empowered responders—including Help.NGO teams—to communicate, track assets and personnel, and

coordinate with command centers and partner organizations in real time, even in low-bandwidth or remote environments.

By leveraging the scalability and security of AWS, the response teams were able to maintain seamless operations and adapt quickly as conditions changed on the ground.

Beyond the immediate impact in hurricane-affected communities, this deployment validated the scalability and agility of multi-orbit satellite communications for global humanitarian missions.

Help.NGO has since extended these solutions to other crisis zones, including the 2024 California wildfires, where VSAT and private 5G equipment from Intelsat are now supporting fire suppression and recovery.

The Impact

The partnership between Intelsat and Help.NGO continues to redefine what's possible in disaster response. Together, they are proving that with the correct technology and teamwork, connectivity can be restored swiftly and reliably—no matter how severe the disaster or remote the location.

As climate events grow in frequency and intensity, this collaboration serves as a blueprint for governments, NGOs, and emergency organizations that are seeking to enhance resilience and responsiveness through innovative SATCOM.

*Author Karan Anand is the Director of Product Management for Networks Enterprise, Intelsat, and may be contacted at **LinkedIn**.*

Karan Anand

SECDEF: U.S. VISION FOR INDO-PACIFIC AND THE CHINA THREAT

Author: Matthew Olay

Late last month, while delivering plenary remarks at a Singaporean security summit, Defense Secretary Pete Hegseth outlined to numerous Asian ally countries the DoD's vision for the Indo-Pacific region, while also addressing the strategic threat posed by China.

Speaking at the ***International Institute for Strategic Studies Shangri-La Dialogue***, the SecDef began his remarks by underscoring the ***Defense Department***'s priorities of achieving peace through strength by focusing on restoring the warrior ethos, rebuilding the military and reestablishing deterrence.

The secretary then used the topic of deterrence—noting, specifically, that our allies around the world are beginning to invest more in their self-defense—to segue into speaking about the Indo-Pacific region.

"*As our allies share the burden, we can increase our focus on the Indo-Pacific: our priority theater*," ***Hegseth*** said. Stating the futures of the U.S. and its Indo-Pacific allies are "*bound together*," Hegseth said the security and prosperity of Americans are linked to the security and prosperity of U.S. ally countries' citizens.

"*We share your vision of peace and stability, of prosperity and security and we are here to stay*," he said. The future vision for the Indo-Pacific in one "*grounded in common sense and national interests*,"

Hegseth said where the U.S. and its allies work together while respecting their mutual self-interests and engaging on the basis of sovereignty and commerce, as opposed to war. The secretary pointed out, as ***President Donald J. Trump*** continues to lead European allies to step up in their self-defense, the U.S. can then focus more resources on the Indo-Pacific region.

"*This enables all of us to benefit from the peace and stability that comes with a lasting and strong American presence here in the Indo-Pacific*," Hegseth said. "*These benefits, they only multiply when our allies and partners are also strong*," he added.

Regarding American influence in the region, Hegseth said the U.S. isn't interested in the approach to foreign policy of the past. "*We are not here to pressure other countries to embrace and adopt our politics or ideology; we are not here to preach to you about climate change or cultural issues; [and] we are not here to impose our will on you. We are all sovereign nations*,"

Hegseth said, adding the U.S. seeks to work with its allies in areas where mutual interests align for peace and prosperity. "*On this sure foundation of mutual interests and common sense, we will build and strengthen our defense partnerships to preserve peace and increase prosperity*," he said.

Pivoting to the threat China poses to the region, Hegseth made clear the U.S. is not actively seeking conflict. "*We do not seek conflict with communist China … But we will not be pushed out of this critical region and we will not let our allies and partners be subordinated and intimidated,*" he said.

Noting China is "*credibly preparing to use military force to alter the balance of power in the Indo-Pacific,*" Hegseth said any attempt by China to conquer neighboring Taiwan would result in "*devastating consequences,*" not just for the Indo-Pacific, but the entire world. "*There's no reason to sugarcoat it: the threat China poses is real, and it could be imminent*," Hegseth said, adding while nobody truly knows what China might ultimately do, the U.S. and its allies must none the less be ready with "*urgency and vigilance*."

While once again reiterating the U.S. seeks peace as opposed to war, Hegseth said the U.S. must also be prepared for armed conflict. "*If deterrence fails — and if called upon by [the] commander in chief — we are prepared to do what the Department of Defense does best: to fight and win, decisively*," he said.

Hegseth then revisited the topic of reestablishing deterrence in the region. The U.S. is working that line of effort in three ways, he said: improving DoD's forward force posture, helping allies and partners strengthen their defense capabilities and rebuilding U.S. and ally countries' defense industrial bases.

"*Across the board, the United States, our allies and our partners have made great progress in these—and many other—areas toward achieving peace through strength*," Hegseth said. "*But we have to do this quickly, and we have no time to waste*," he added.

Hegseth wound down his remarks by emphasizing those who long for peace must prepare for war, and the U.S. is looking to its partners and allies in the Indo-Pacific to do just that.

"*Our time is now*," Hegseth said, adding the threats the U.S. and its allies are facing will not wait.

"*And nor can we*," he concluded.

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