



JIFX 25-4 Quicklook

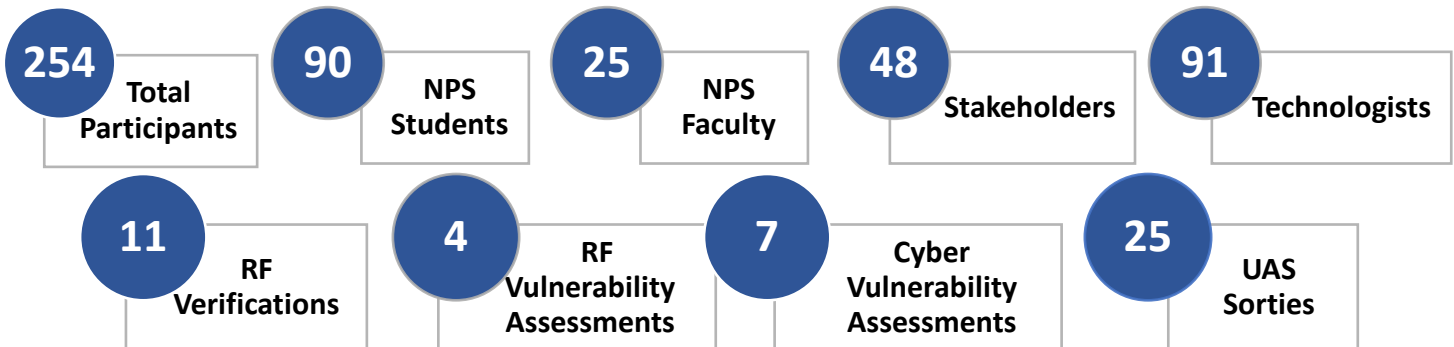
August JIFX events are always hot, and this year's 11-15 August event did not disappoint. Experimenters and stakeholders' brain synapsis were on fire exchanging knowledge about the applications for the 27 unique technologies on hand while the daily temperatures were steadily over 105° Fahrenheit. All in all, a good ending for our fiscal year '25 events.

Participants from industry, government labs, and NPS started exploring the individual technologies. Within hours a series of ad-hoc collaborations integrating or fusing software, hardware, and various concepts of employment expanded our collective understanding of the art of the possible for addressing operational challenges in the areas of human-machine integration, artificial intelligence, sensor fusion, autonomy, and resilience. The event was also a landmark for the NavalX led DINA development effort. The DINA team deployed the entire innovation assistant suite of tools including its Salesforce interface. A powerful tool is on its way to assist force capability development.

We had an extraordinary turnout of participants from NPS that included three experimenting teams as well as a group of 90 uniformed military officers and two dozen faculty engaging with technologists. They also assessed how JIFX can support their education and research efforts.

The next JIFX event is tentatively scheduled for 3-7 November 2025, but confirmation awaits resourcing decisions by DoN, OSD, and Congress. Despite the tentative status of the event, we invite innovators, technologists, and service members to propose experiments that will benefit their development efforts and advance DoD force capability development. I intend to include a roster of all proposed experiments in my communication with potential sponsor organizations. Proposals can be submitted here <https://www.nps.edu/web/fx/experiment-proposal>.

By the Numbers





JIFX
Joint Interagency Field Experimentation



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Quad ID	Experiment Title	Organization	Vulcan ID
B-08	Virtual Maritime Picture for UxS	Gradient Marine	20710
B-11	Development & Assessment of Off-Road GPS-Denied Navigation and Mapping Capabilities	BlueSpace.ai	14088
B-12	Agentic AI Aviator	Innovaix Corp	20167
B-14	Latent AI Ruggedized AI Kit	Latent AI	11095
B-16	EOD UAS Platform for Detection and Remote Mitigation of Surface and Subsurface UXO	TETAC, Inc.	21550
C-01	Onboard Multi-Sensor UAS Detection and Operator Interface Validation for Maritime SOF Platforms	Naval Postgraduate School	
C-02	Mara: Autonomous, Low Cost, Portable CUAS	Mara Solutions, Inc.	19519
D-04	Athena	Naval Postgraduate School Foundation	
D-07	Distributed Tactical Radio based jammer detection, threat library creation, cancellation	Silvus Technologies	
D-08	RF Data Geocoding into the Time United Location System Address (TULSA) Datum	CubeNexus Inc	17122
E-01	HunterX - AI-Teaming for Cyberspace Operations	SIXGEN	20501
E-04	Contemporary Communications in RF Degraded Environments	Naval Postgraduate School	
F-01	Intelligence Automation - Target Custody	GRVTY	20991
F-04	Prometheus Torch AI Field Test: Evaluating Voice-to-Voice Interview Performance in High-Noise, Disruptive Environments	Prometheus Intelligence	20463

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Quad ID	Experiment Title	Organization	Vulcan ID
F-08	Augmented Reality Mission Pathways for Threat Detection and Tactical Readiness	HoloTerra Inc.	21736
G-02	Stylo News AI Powered OSINT (Offsite experiment)	ProWave AI, LLC	19577 21645
G-04	Tactile Augmentation System for Enhanced Situational Awareness	Neurocom	18329
G-06	SEnPAI	EpochGeo	20953
G-08	AI-Enabled Role Player Training	Delta AI	18874
G-09	KongMing – Intelligent Machine Agents To Enable Better Decisions	Husmann Technologies, LLC	21715
G-10	Endstate: Collaborative AI for military planners	Endstate Technologies (Fairwater Labs)	21656
G-11	Sensor Fusion for High-Speed Marine Navigation	SeaCross Marine	
H-03	LAMA: Localization and Mapping Artificial Intelligence Application	HoloChip Corporation	20219
I-04	Harvesting Water from Air	AtmosphereH2O	
I-06	Real-Time Ocular-Based Fatigue Detection in Warfighters Using Blink Frames Technology	Globe Biomedical, Inc.	
I-07	Powered Exoskeleton for Enhanced Combat Support and Logistics	Roam Robotics	17204
I-08	User-Adjustable Propulsion in Exoskeleton Footwear for Warfighter Mobility Enhancement	Results Group LLC dba Motive Labs	20396
I-09	Assessing Combat Medic Trust in a VR System for Military Rehabilitation Post Mild Traumatic Brain Injury	AV Inc. (Formerly, BlueHalo)	21599
J-01	Multi-Echelon UI for Chat, SA, and COP Management (Offsite experiment)	DeVilliers Technology Solutions LLC	19258

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Naval Postgraduate School Engagement at JIFX 25-4

JIFX 25-4 highlighted the Naval Postgraduate School's (NPS) distinctive role as both an innovation hub and an educational institution, demonstrating how student, faculty, and foundation partnerships strengthen defense-focused experimentation.

Student-Led Experiment: As part of the Bold Machina (BOMA) directed studies program at NPS, a team of officer-scholars led experiment *C-01: Onboard Multi-Sensor UAS Detection and Operator Interface Validation for Maritime SOF Platforms*, testing a passive, vehicle-mounted counter-UAS detection system designed for small maritime craft such as RHIBs. Mounted on a moving vehicle to simulate maritime operations, the system fused EO/IR, RF, acoustic, and low-probability radar inputs into a real-time operator interface, using drones flown by other JIFX participants to evaluate detection accuracy, alerting logic, and operator feedback in an operationally relevant environment.

Faculty Experimentation: NPS faculty also advanced research agendas at JIFX 25-4, including experiments examining resilient communications in degraded RF environments. These projects showcased how faculty-led work contributes directly to fleet and force challenges while also enriching the research-based learning of students.

NPS Foundation and the ATHENA Platform: The NPS Foundation supported experimentation on its ATHENA platform, enabling collaborative evaluation of advanced technologies. By creating shared access to a cutting-edge test environment, ATHENA linked NPS researchers, students, and external innovators in ways that accelerated learning and application.

NPS Participation: In total, 90 NPS students and 25 faculty members participated at JIFX 25-4 as experimenters, evaluators, and observers. Their involvement not only provided real-time feedback to industry and government partners but also reinforced NPS's mission: blending defense-focused education with applied, operationally relevant research.

Together, these efforts underscored JIFX's importance as a living laboratory where the Naval Postgraduate School advances both its educational goals and its contributions to the Department of Defense innovation ecosystem.



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C-01: NPS Students, in collaboration with international industry partners, conducted their “**UAS Detection and Operator Interface Validation for Maritime SOF**” experiment. Using a mobile sensor suite and live UAS flights, the team evaluated detection accuracy, swarm management, and operator interface performance in an operationally relevant environment.



E-04: NPS researchers explored the resilience of modern communication systems in **contested RF environments**, assessing vulnerabilities and testing solutions to maintain reliable connectivity under degraded signal conditions.



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I-07 & I-08: NPS Students and JIFX Stakeholders assessed human performance enhancement technologies by integrating **Roam Robotics'** powered exoskeleton with **Motive Labs'** user-adjustable propulsion footwear during field trials on the CACTF rubble pile. The **powered exoskeleton** is designed to augment quad strength, reduce knee strain, and extend operator endurance in physically demanding missions, while the **propulsion footwear** incorporates FlyBand ExoBoot technology to improve speed, agility, and maneuverability through tendon-like elastic components. Together, these systems were tested in realistic operational conditions to evaluate their combined potential to reduce fatigue, increase mobility, and enhance overall warfighter survivability when operating in austere and complex environments.



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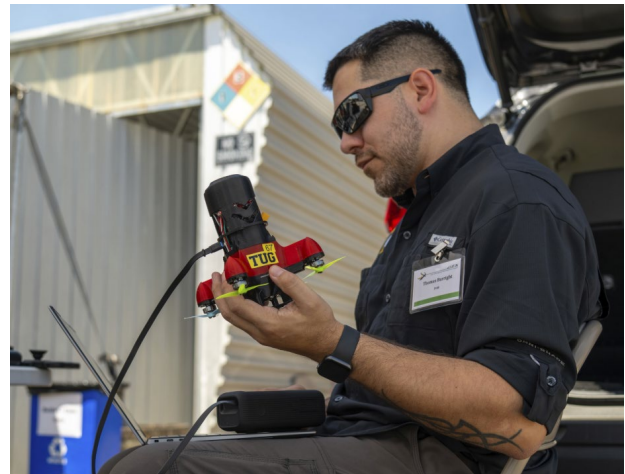
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The **Joint Vulnerability Assessment Branch (JVAB)** team provided on-site assessments and technical support to experimenters, helping evaluate vulnerabilities and performance in operationally relevant conditions. Their work ensures emerging technologies are tested against realistic threats and environmental factors, giving participants valuable feedback to refine their systems.



B-16: TETAC, Inc. demonstrated a semi-autonomous UAS platform for detecting and mitigating surface and buried UXO. Using advanced sensors and AI-enabled analysis, the system can scan, localize, and remotely neutralize explosive hazards to improve EOD safety and efficiency.



I-04: AtmosphereH2O showcased their water harvesting system, which produces clean drinking water directly from air. The experiment tested taste, battery-only operations, and water quality, demonstrating a renewable alternative to bottled water.



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C-02: Mara Solutions evaluated the sensing and tracking capabilities of their Spike and Seeker CUAS system. The system combines advanced multi-sensor detection with a high-speed interceptor to track and neutralize drone threats in real time. The system is low-cost, jam-resistant, and designed for scalable defense applications.

I-09: AV, Inc showcased Rehab.XR, a VR rehabilitation system that uses wearable sensors and immersive training to support combat medics and service members recovering from brain injuries. The system aims to build trust in VR tools for return-to-duty screening and rehabilitation.



Upcoming JIFX Events (Tentative)

Event	Dates	Focus Area	Location
JIFX 26-1	3-7 November 2025	Operations in the Littorals	TBD
JIFX 26-2	23-27 February 2026	TBD	NPS Field Laboratory
JIFX 26-3	11-15 May 2026	TBD	NPS Field Laboratory
JIFX 26-4	10-14 August 2026	TBD	NPS Field Laboratory

Dates & Location Subject to Change