



JIFX
Joint Interagency Field Experimentation



NPS Joint Interagency Field Experimentation 24-3 Update

The Naval Postgraduate School (NPS), in support of the Innovation & Modernization (I&M) Office in the Office of the Undersecretary of Defense for Research and Engineering, executed JIFX 24-3 at the NPS Field Laboratory on McMillan Airfield, Camp Roberts, CA from 13-16 May 2024. This innovation discovery event focused on technologies related to C5ISR & Countermeasures. Attendees included 16 small business and non-traditional performers and one service lab, exploring 18 unique technologies in and around the Field Laboratory and Camp Roberts training areas.

There were 170 registered participants at the event representing 6 COCOMs (CENTCOM, INDOPACOM, NORTHCOM, SOUTHCOM, TRANSCOM, and SOCOM), Joint Staff J8, Joint Integrated Air and Missile Defense Cmd, Intelligence Ctr of Excellence, Naval Special Warfare Command, Naval Warfare Development Command N8 (FLEX), NSWC Crane, NSWC Corona, Fleetwerx, ONR, Marine Corps Installation Command, HQDA G2, Army Futures Command, US Army DEVCOM, AFWERX, AFRL, DIU Mountain View, and DHS. Twelve NPS students, staff and faculty members also attended the event including representatives of the Norwegian and German armed forces. Finally, we had the pleasure of hosting COL Bryan Keels and Mr Scott Mitten, the Camp Roberts Commander and Director of Operations.

Collaboration turned out to be the theme for the week. Led off by the Blue Halo team and their US Space and Missile Defense Command partners nearly every participating technologist shared, analyzed, visualized, or acted upon data from another technologist. Many were also able to integrate systems or software during the week. We can expect a solid partnership or two to emerge from those efforts in the coming months.

The next JIFX event at Camp Roberts is scheduled for 5-9 August 2024. We are open to all technologies with relevant defense applications especially those directly related to Non-Standard Communication & Navigation. You can find additional information here

<https://www.nps.edu/documents/104517539/144282918/JIFX+24-4+Event+One+Pager.pdf/fa2fe5ed-fbfe-00f5-7d59-1c16300e376b?t=1692407493642>

170
Total
Participants

43%
DoD
Stakeholders

57%
Technologists

18
Unique
Technologies

52
UAS
Sorties

[nps.edu/fx](https://www.nps.edu/fx)

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Quad ID	Experiment Title	Organization	Vulcan Scout Card ID
A-02	IronClad Secure Flight Controller Enhancements	Asymmetric Technologies, LLC	10183
A-05	WeatherHive - Swarming Meteorological Measurement System	GreenSight	14423
A-07	Test Flight of VTOL and Transition	Odys Aviation	
A-08	Octocopter GPS-Denied UAV Navigation	Rhoman Aerospace	11550
B-01	OpenAthena sUAS ISR Enhancement	Theta Informatics LLC	16009
B-03	Chat-based Mission Planner (ChaMP) Human Machine Team	Lockheed Martin AI Center	16989
B-06	Development & Assessment of Off-Road Autonomous-Driving Capabilities	BlueSpace.ai	14088
B-10	Phalanx Shield Multi-Domain Sensor System	Innovative Algorithms	3517
D-02	REDCOM ATAK Communications Plugin	REDCOM Laboratories	10052
D-03	Ubiquitous Security Platform (USP)	Ombra	14594

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Quad ID	Experiment Title	Organization	Vulcan Scout Card ID
F-03	ATAK Live Mapping	GreenSight	16942
F-05	BASS BOOST - Better Operational Optimization through Speech Technology	Blue Ridge Dynamics, Inc.	16417
G-02	Airship AI Outpost	Airship AI	15943
G-03	Integrated Sensing and Communications Using 5G	Tiami Networks	16693
G-04	Narrative Intelligence in the Information Environment	Clara Copilot	16451
G-05	Joint and Multi-National Integration in Real-Time	United States Space and Missile Defense Command & BlueHalo	
K-02	LightCell: Portable, Silent, Long-Endurance Power Generation for Tactical C5ISR	Mesodyne Inc	15565
M-01	Combined WxUAS Enhanced Targeting and Battle Damage Assessment with SUAS	GreenSight	16095

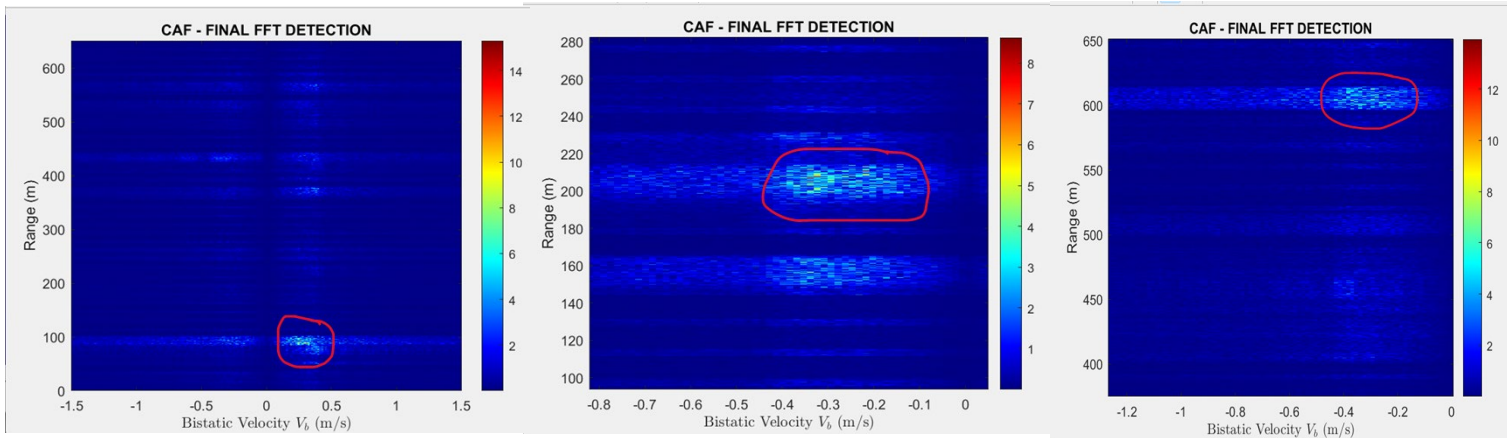


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G-03: Tiami Networks proved it's 5G-based integrated communications and sensing (ISAC) device could maintain data connectivity while providing a radar sensing of the environment that classified uncrewed aerial systems at various ranges.



GreenSight Mustang at 100M

GreenSight OWL at 200m

Lockheed Stalker at 600m



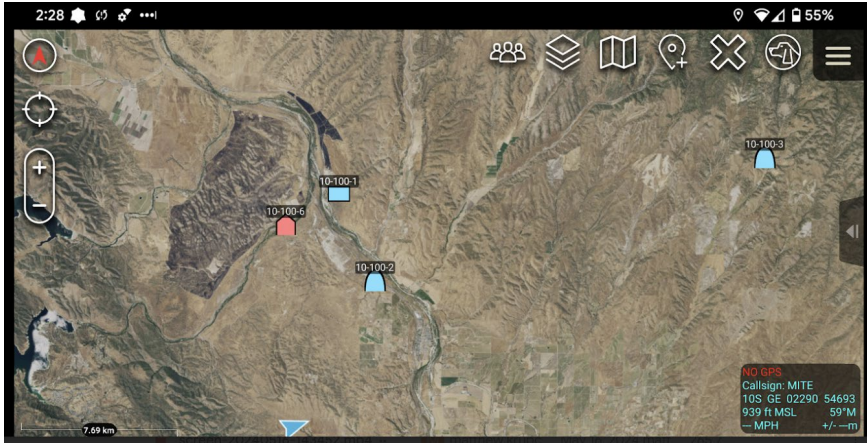
B-03: Lockheed Martin AI Center validates their Chat-based Mission Planner (ChaMP) Human Machine Team concept by controlling Stalker UAS sorties visualized on ATAK devices.



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G-05: US Space & Missile Defense Command and partner **Blue Halo** collaborated with **B-01: Theta Informatics** to synchronize and visualize sensor data to track air movements of UAS over Camp Roberts.

A-04: Rhoman Aerospace and ANRA Technologies partner on proof of concept to provide command, control, and deconfliction of UAS traffic flying by visual navigation in a GPS free environment.



M-01: GreenSight Mustang returns after a successful flight as part of the Enhanced Targeting and Battle Damage Assessment experiment.



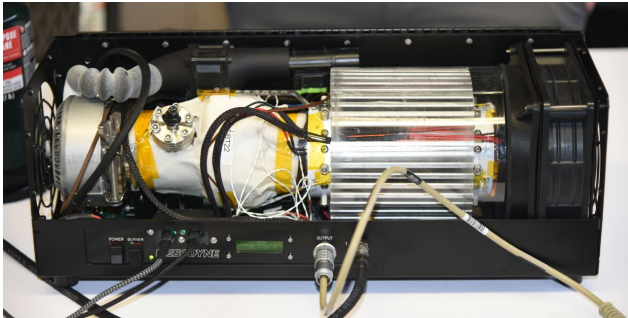
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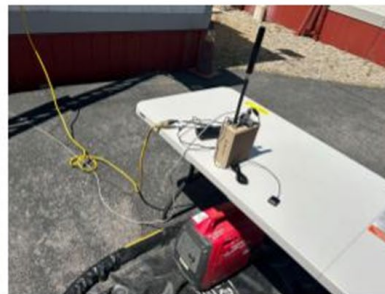
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G-02: Airship AI ran full-motion video feeds from various UAS to test and further train their **Outpost** advanced edge-based analytics device.



K-02: Mesodyne Lightcell powers B-10: Innovative Algorithm's RF Sensor to demonstrate the Lightcell operation does not interfere with sensor data collection in contrast to a commercially available generator.



Configuration: Honda Generator, running
Result: significant noise, still detecting close-range UAS, long-range potential issue



Configuration: LightCell, closed, running
Result: little to no noise



Configuration: LightCell, open, running
Result: little to no noise



Configuration: LightCell, open, startup
Result: little to no noise



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A-07: Odys Aviation prepares Abner, a subscale test vehicle, for flight to evaluate their unique air foil during transition from vertical to horizontal flight. Photo courtesy of Dan Linehan, NPS. Below, Leona, the company's full scale test vehicle is readied for reconfiguration into a two 463L pallet-sized load.



Upcoming Events

Event	Dates	Focus Area	Location
JIFX 24-4	5-9 August 2024	Non-Standard Communication & Navigation	NPS Field Laboratory at Camp Roberts

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