JIFX
Joint Interagency Field Experimentation

JIFX 24 – 2

5 – 9 February 2024
NPS Field Laboratory at Camp Roberts
Event Focus Area: **Multi-Domain UXS & Countermeasures**

Research Areas Include:

- **Aerial UXS**: Unmanned aerial vehicles (UAVs) and drones play pivotal roles in surveillance, reconnaissance, logistics, and disaster response. Explore the advancements in autonomous flight, long-endurance capabilities, and sensor payloads that drive aerial UXS innovation.
- **Ground UXS**: Autonomous ground robots contribute to tasks such as reconnaissance, mine clearance, and logistics in challenging terrains. Investigate the development of robust mobility, adaptive navigation, and human-robot interaction in ground UXS.
- **Maritime UXS**: Unmanned maritime vehicles offer solutions for underwater exploration, mine countermeasures, and maritime domain awareness. Discover advancements in underwater communication, energy harvesting, and underwater navigation systems.
- **Space-Based UXS**: Autonomous space systems, including satellites and probes, revolutionize communication, Earth observation, and interplanetary exploration. Explore breakthroughs in propulsion, autonomy, and collaborative space missions.
- **Countermeasures:** Robust countermeasures to address security threats and vulnerabilities related to UXS including strategies and technologies aimed at protecting UXS from malicious activities, unauthorized access, and operational disruptions.
- **Autonomous Navigation:** Explore the challenges and breakthroughs in creating autonomous unmanned systems that can operate seamlessly across air, land, sea, and space domains.
- **Sensing Technologies:** Dive into the advanced sensor technologies that enable UXS to perceive their environment, make informed decisions, and adapt to changing conditions**.**
- **Communication Protocols:** Learn about secure and resilient communication protocols that facilitate real-time data exchange between UXS and their human operators.
- **Swarm Intelligence:** Investigate the potential of swarm robotics, where groups of UXS collaborate intelligently to achieve complex tasks with efficiency and redundancy.

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