



JIFX 23-1 Experiment Coordination Calls

Event Dates: 7 – 10 November 2022

Call Agenda – Call #1

JIFX Team

Event Overview

Registration & Gate Access

Logistics

Future Meetings

Q&A

Call Agenda – Call #2

Event Information

Event Safety

Airspace Safety

Event Network

JVAB

COPERS

Call Agenda – Call #3

Event Schedule & Final Logistics

Experiment Introductions

Q&A

Dr. Mike Richardson, JIFX Director

Ashley Hobson, Event Operations

Jonathan Coon, Data Management

Aurelio Monarrez, Air Operations

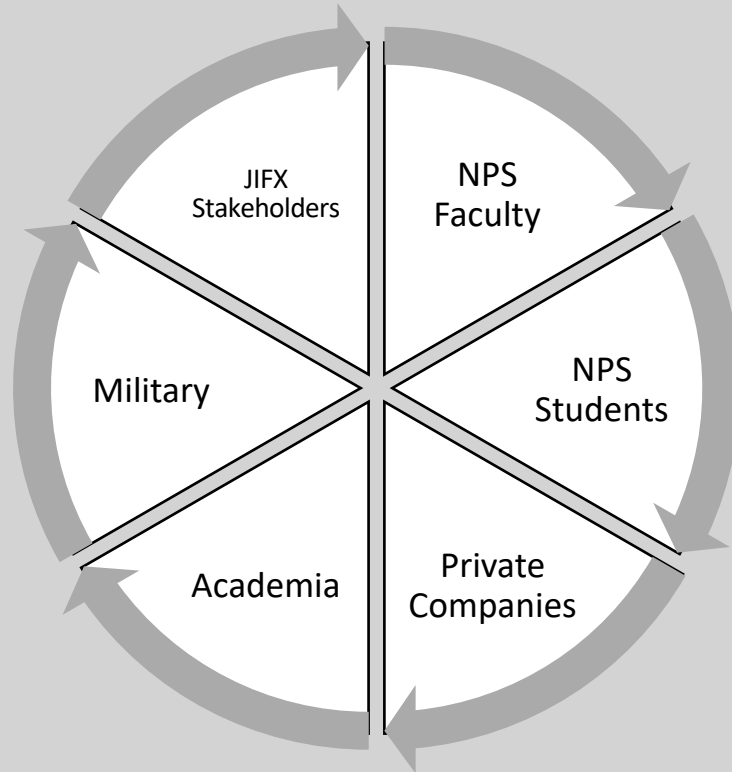
Joseph Lukefahr, Tech & Network Management

Dirk Hale, Camp Roberts Facilities

Joint Vulnerability Assessment Branch (JVAB),
Frequency Verification & Cyber Vulnerability
Assessments

JIFX Team

WHAT IS JIFX?



Mission Statement:

The JIFX team leads experimentation in alternative methods to enable rapid technological development by cultivating a community of interest and hosting broadly scoped quarterly collaborative field events which enable DoD, US government, and allied stakeholders to identify, influence, and accelerate early-stage technology development that address national and collective security challenges.



















JIFX is an **experiment** on the methods to enable **rapid technological development**.

JIFX provides researchers a turn-key solution for **safe, secure, legal, and collaborative** experimentation

What JIFX isn't:

- Tradeshow
- Conference
- Sales Event
- Demonstration
- Lectures
- Presentation
- Acquisition Event



and Illustrate Your Own Stories	Rachel Winterberg		
ancing through STEAM	Elizabeth Peterson		
onia - More than Just a Gallery!	Donna Staten		
11:00AM BRAIN BREAK #1			
terns in Music, Dance and Mathematics	Marcia Daft		
Exploring the Creative Process with Dance	Deirdre Moore		
Experimenting with Color	Beth Elliston		
Partner Showcase: Art to Remember			
Partner Showcase: Buncee			
12:35PM BRAIN BREAK #2			
Building an Arts Magnet School	Bobby Riley & Judy Kilma		
Put on Your Math Goggles: Seeing Math in Art	Robin Ward		
PM Design Brain-Friendly Learning Spaces	Erin Klein		
1:50PM BRAIN BREAK #3			

BIG SALE

JIFX Stakeholders

Air Force Special Operations Command

National Oceanic and Atmospheric Administration (NOAA)

Naval Special Warfare Command (WARCOM)

Office of Naval Research, Rapid Reaction Technology Office

US Central Command (USCENTCOM)

US Special Operations Command (USSOCOM)

US Transportation Command (USTRANSCOM)

US Strategic Command (USSTRATCOM)

DHS Customs and Border Protection

Defense Threat Reduction Agency (DTRA)

Joint Intermediate Force Capabilities Office (JIFCO)

National Maritime Intelligence-Integration Office

Naval Information Warfare Center Pacific

Naval Surface Warfare Centers

US Army Futures Command

US Army Combat Capabilities Development Command

Air Force Research Lab

Defense Innovation Unit

Department of Energy

Naval Facilities Engineering and Expeditionary Warfare Centers

FUNDAMENTAL TENETS



AUSTERE BY
DESIGN



COLLABORATION
IS EXPECTED



BOUNDED, NOT
CONTROLLED



DEVELOP NOW!



FAILURE =
LEARNING



INCLUSIVE

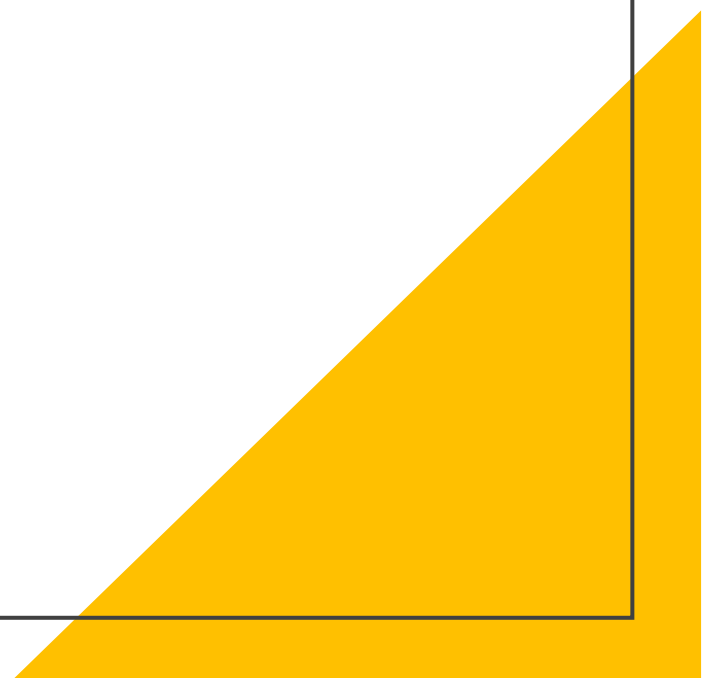
Event Location

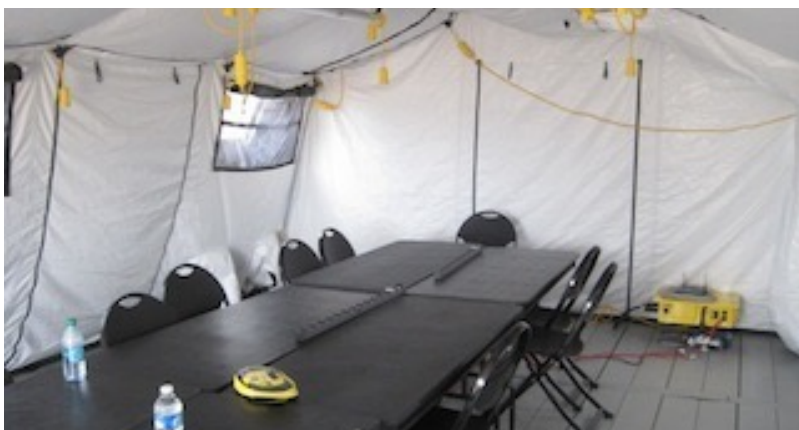
7 – 10 November 2022

McMillan Airfield at Camp Roberts

Closest Town: Paso Robles, Atascadero, San Luis Obispo

Closest Airport: San Luis Obispo, Monterey, San Jose, SF





Camp Roberts Facilities: McMillan Airfield



Camp Roberts Facilities: Combined Arms Collective Training Facility (CACTF)

26-acre full-scale urban operations training facility including a mock church, police station with underground jail, three-story hotel, businesses, residential buildings, underground tunnels, and a rubble pile.

Event Schedule

Monday: 0900 Venue/Registration Opens

1000 Event Kick-Off Brief*

JVAB Frequency Verifications

Experimentation

1630 Evening Brief*

Tuesday: 0730 Venue/Registration Opens

0800 Morning Brief*

0830 Flyers Meeting

Experimentation

1630 Evening Brief*

Wed. 0730 Venue/Registration Opens

0800 Morning Brief*

0830 Flyers Meeting

Experimentation

1630 Evening Brief*

Thurs. 0730 Venue/Registration Opens

0800 Morning Brief*

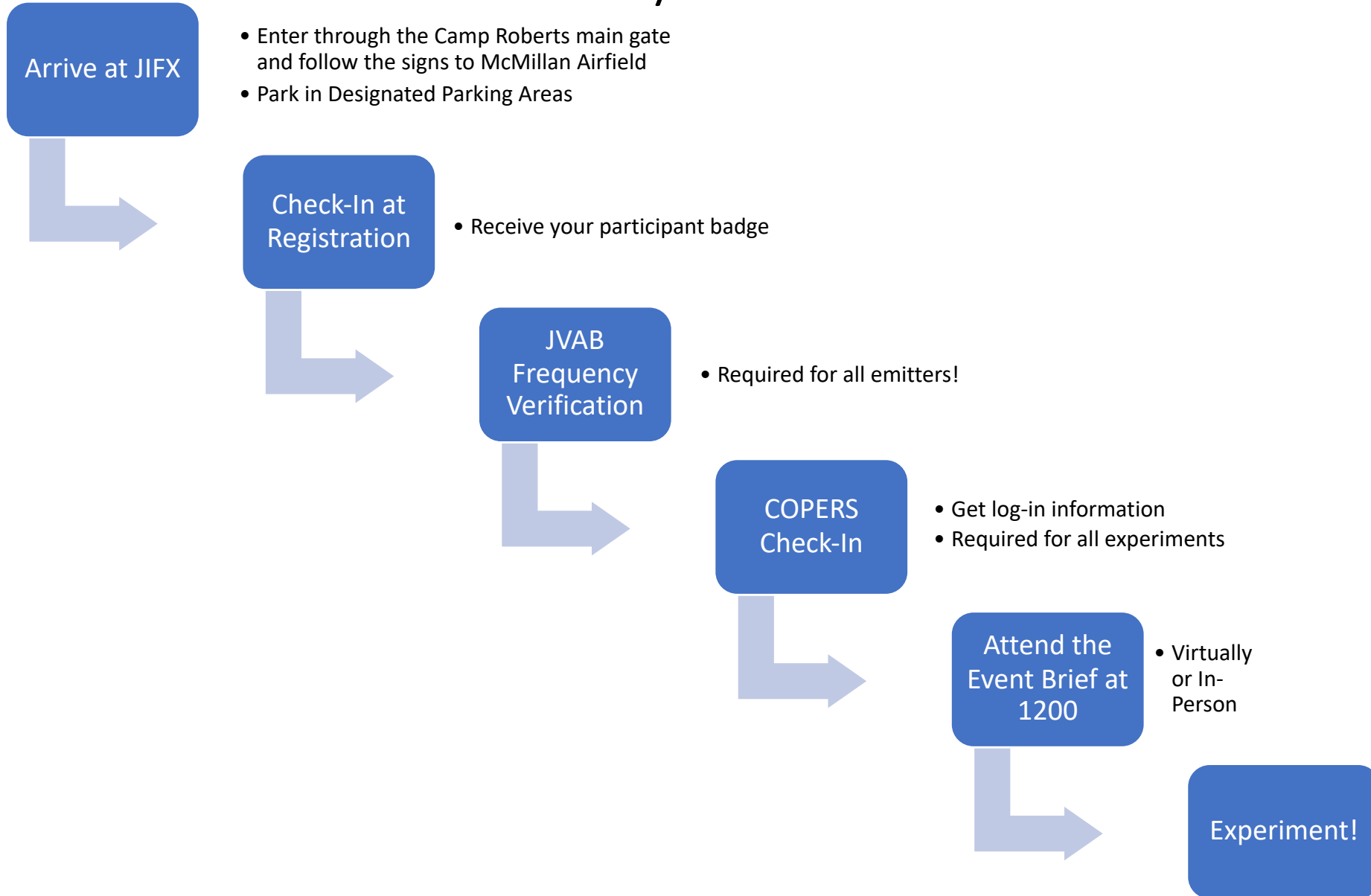
0830 Flyers Meeting

Experimentation

1630 Evening Brief*

*All Briefs will be broadcast for virtual participation. Zoom for Government dial-in information will be provided to all registered participants via email.

Monday Schedule





- Paso Robles, California 93446
- McMillan Airfield / East Perimeter, Califor
- ⊕ Add destination

Leave now ▾

Options

Send directions to your phone

via US-101 N and E Perimeter Rd **33 min**
22.2 miles
Fastest route
[Details](#)

via E Perimeter Rd **39 min**
24.1 miles

via Nacimiento Lake Dr **55 min**
29.3 miles

Explore McMillan Airfield / East Perimeter



Gas Groceries Hotels More

Nacimiento

Lake Nacimiento Resort

San Miguel

Wellsona

Adelaide

Allegretto Vineyard Resort Paso Robles

Paso Robles

Layers

Google

Map data ©2021 United States Terms Privacy Send feedback 2 mi

McMillan Airfield

Runway

Vehicle Barn

SIP
Hut

Briefing
Trailer

Hangar

TOC

Registration

Restrooms

E Perimeter Rd

Parking





Generals Rd

Generals Rd

Generals Rd

Generals Rd

E Perimeter Rd

E Perimeter Rd

Event Website

www.nps.edu/fx > Click “Upcoming JIFX”

- COPERS information
- Shipping Addresses
- Cursor on Target information
- Camp Roberts ROZ Files
- Flyer Information: Airspace Control Plan
- And more!

Registration & Gate Access

- Registration is required for all participants
 - www.nps.edu/web/fx/register
 - Be sure to scroll all the way through the safety brief!
- Non-US Citizens must register by 10/28/2022

Shipping

Parcel Service (Individual packages, less than 150 lbs)

NPS Field Laboratory - McMillan Airfield

Attn: (*Your Company / Your Name*)

Bldg 914, Shipping & Receiving

Camp Roberts, CA 93451-5000

Ph 805-227-1314

Directly to the Airfield: Freight

NPS Field Laboratory - McMillan Airfield

Attn: (*Your Company / Your Name*)

McMillan Airfield, East Perimeter Rd

Camp Roberts, CA 93451-5000

Ph 805-227-1314

Addresses are posted on the website!

www.nps.edu/fx

Event Safety



- Lots of wildlife, big and small.
- Dry, desert heat. Cold nights, warm days.
- Fire safety is a major concern.
- Emergency Phone Numbers will be on the back of all participant name badges.
- Food options are limited.

Airspace Safety



www.nps.edu/fx

- Airspace Control Plan (ACP)
- Pre-Mishap Plan (PMP)

Airspace Control Plan (ACP)

This **Airspace Control Plan (ACP)** outlines airspace procedures for NPS activities aboard Camp Roberts CA ARNG base and within Restricted Area R-2504A/B. The ACP is directive for all NPS JIFX event participants.

Airspace Boundaries and Buffers must be displayed on GCS

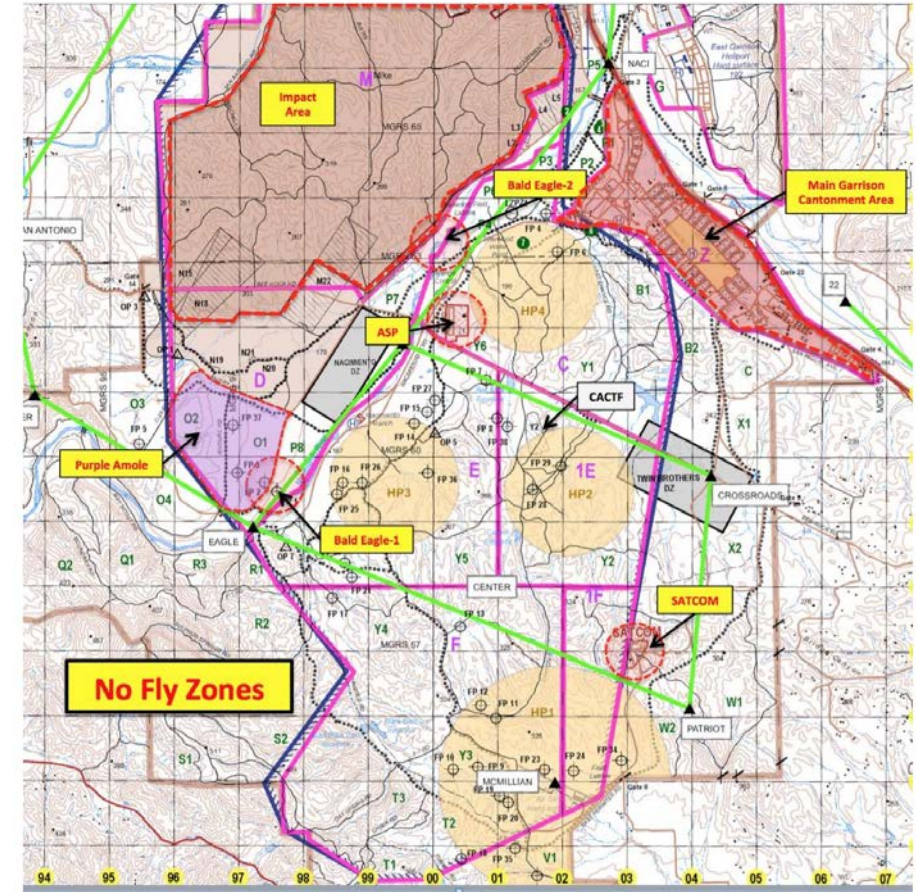


Figure 3: Camp Roberts Restricted Operating Zones (A-F, M, Z), No Fly Zones, and Holding Points within the R-2504

Pre-Mishap Plan

The PMP established procedures that will assist personnel immediately following a mishap

“In case of a mishap, or any unintended impact with the ground or another vehicle, the flying unit will immediately notify the Air Boss via Radio or phone.”

Air Operations



Range Flag

No flight operations are permitted unless the RED RANGE FLAG is flying. The airspace is considered “HOT” when the flag is raised.

- All UAVs and Frequency Emitting devices must be verified by JVAB prior to flight approval. Expect to complete this on Monday of JIFX week.
- An “Airboss” will manage all UAVS and always maintain safety in the airspace.
 - **Prior to radiating – you need airboss approval!**
 - **Prior to take-off – you need airboss approval!**
 - **Prior to landing – you need airboss approval!**
- All airboss communication will be down over the JIFX radio network.
- All event participants (on foot or on vehicle) must remain clear of the active runway and at all times unless first cleared by the Air Boss.

JIFX Networks



Communications

**Local IP networking (Ethernet,
WiFi)**

- McMillan Airfield
- CACTF
- SLAMR

Limited Internet connectivity




Information Technology (Camp Roberts)

**Printing @ McMillan Airfield
Tactical Assault Kit (TAK)**

**Cursor-on-Target
debugging/routing**

Before You Connect...

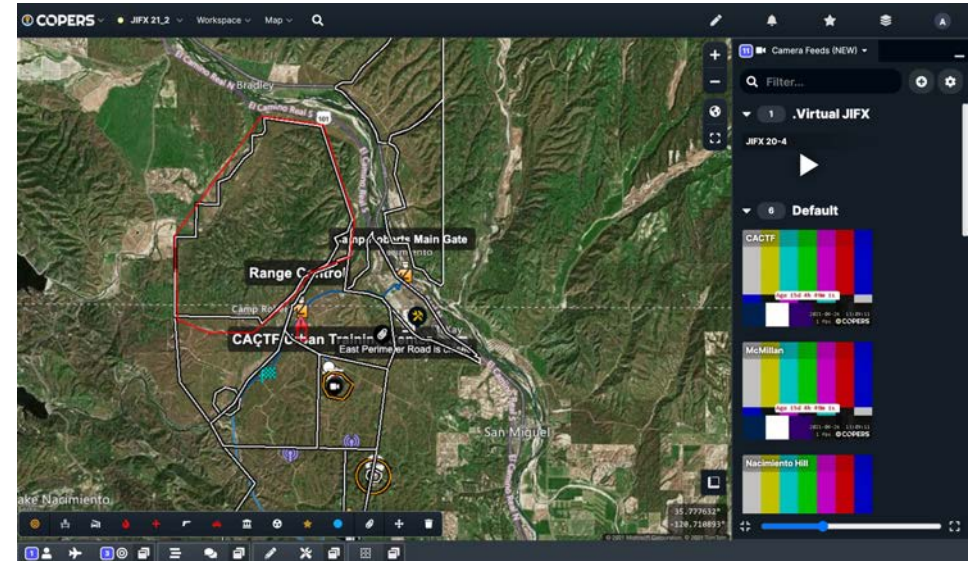
- JIFX network is intended for:
 - Event administration
 - Rapid collaboration & integration
 - Acceptable use:
 - Respect others' operations, privacy, security
 - No malicious activity
 - Consult your organization's IT & security policies before connecting
 - Coordinate with network manager before connecting systems (Joseph Lukefahr)
- 
- A large yellow triangle is positioned in the bottom right corner of the slide, pointing towards the top right.

Joint Vulnerability Assessment Branch

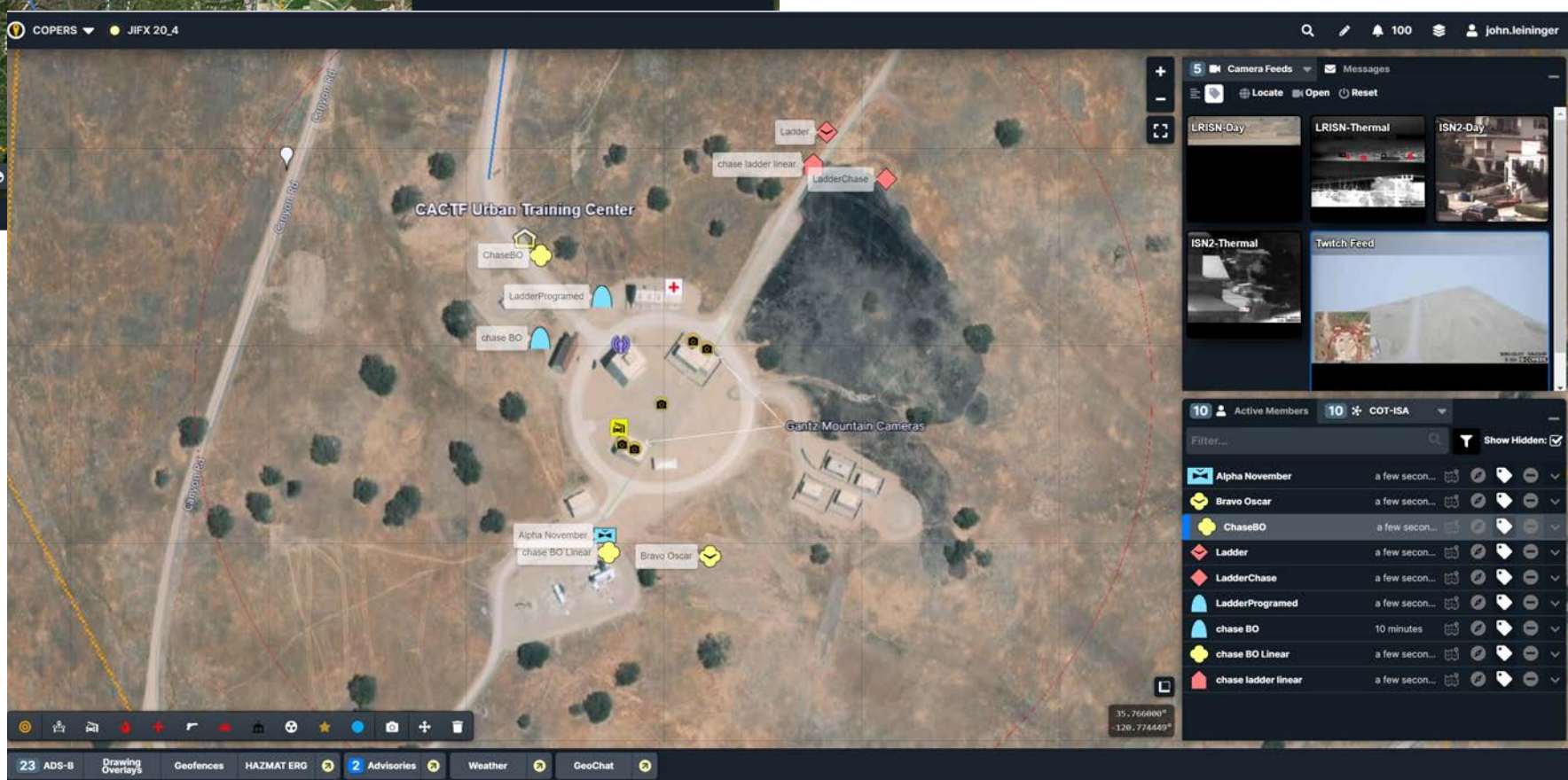
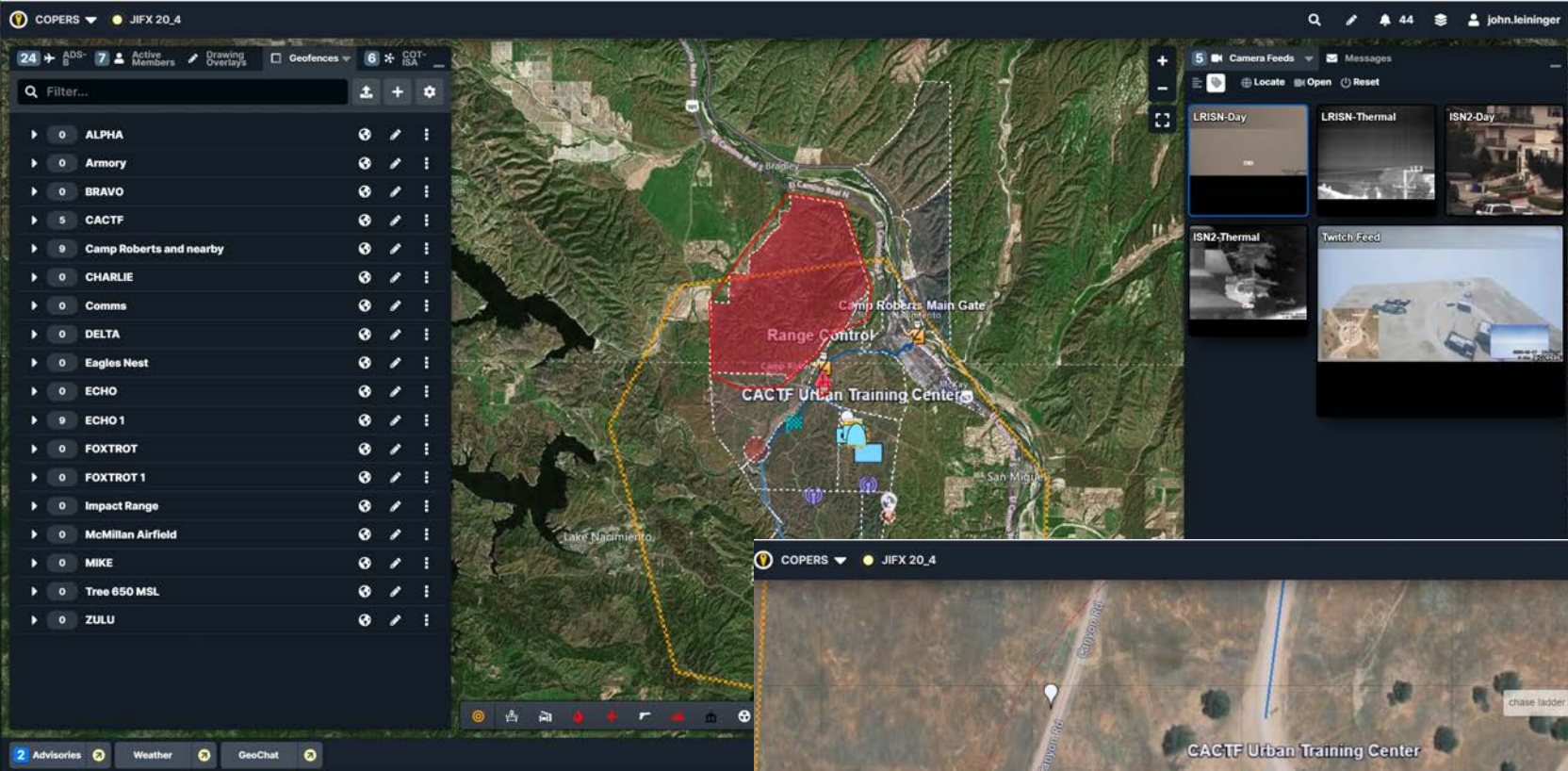
- Frequency Verifications
 - Required!
- Cyber Vulnerability Assessments (CVA's)
 - Required for UAVs!
- www.nps.edu/web/fx/cybersecurity

COPERS

- COPERS Common Operating Picture (COP) provides real-time situational awareness of your connected experiment, team and equipment.
- COPERS provides a broad array of tools and integrations including:
 - Cursor on Target (CoT)
 - Android Team Awareness Kit (ATAK)
 - ADS-B
 - Geofencing
 - Ad hoc shared map drawing
 - geochat among ATAK devices and COPERS Users
 - Biomedical sensor status
 - Cameras feeds and live streams
 - Forms and checklists
 - Equipment management



<http://copers.tdkc.com/>



<http://copers.tdkc.com/>

COPERS – JIFX Integration

- Group logins available for each Experiment
- ADS-B
- Cursor on Target Integration
- Live Stream
 - YouTube
 - Twitch
- Camera Feeds
 - 1 connection between the camera feed and COPERS
 - Typically configured for, low frame rates (~1 frame / sec) to COPERS

FUTURE MEETINGS

Wednesdays @ 1100

Call #2

- Event Safety
- Air Space Safety – Bring your pilots/operators!
- JVAB
- COPERS
- Event Network

GPS-Denied Environments

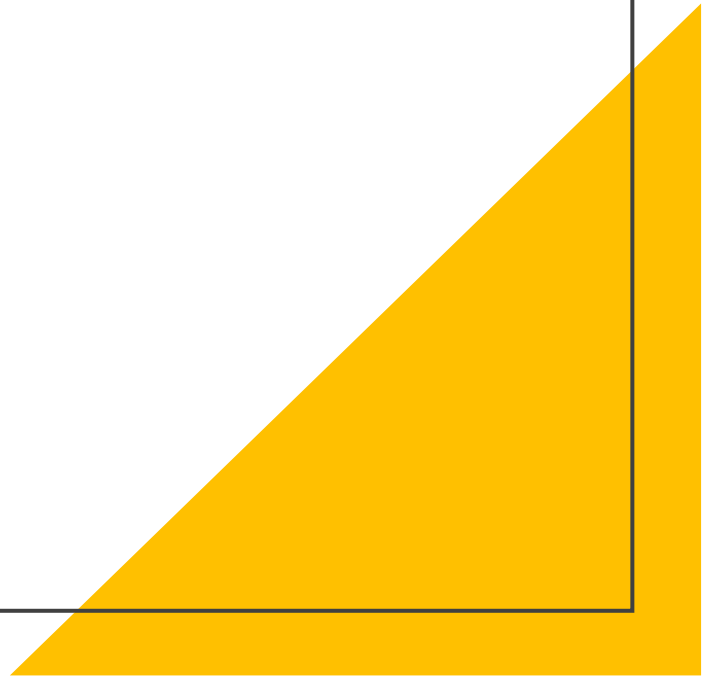
- Optional
- Thursday, August 4, 2022

Call #3

- Experiment Introductions
- Final Event Logistics
- Event Schedule

Experiment Introductions

- Introduction of Experiment
- How can you support other experiments?
- How can other experiments integrate with you?





Questions?

fx@nps.edu

831-402-9333