

JIFX 23-4

Coordination Calls

7 – 11 August 2023



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

COPERS

Call Agenda – Call #3

Experiment Introductions

Q&A

Dr. Mike Richardson, JIFX Director

Ashley Book, Event Operations

Jonathan Coon, Data Management

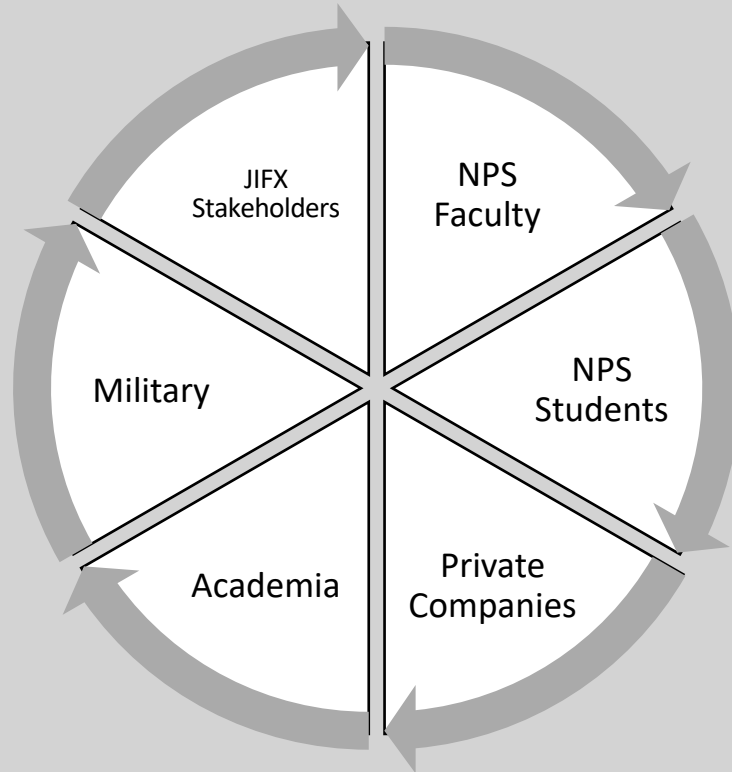
Aurelio Monarrez, Air Operations

Joseph Lukefahr, Tech & Network Management

Dirk Hale, Camp Roberts Facilities

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



FUNDAMENTAL TENETS

AUSTERE BY DESIGN

COLLABORATION IS EXPECTED

BOUNDED, NOT CONTROLLED

DEVELOP NOW!

FAILURE = LEARNING

INCLUSIVE

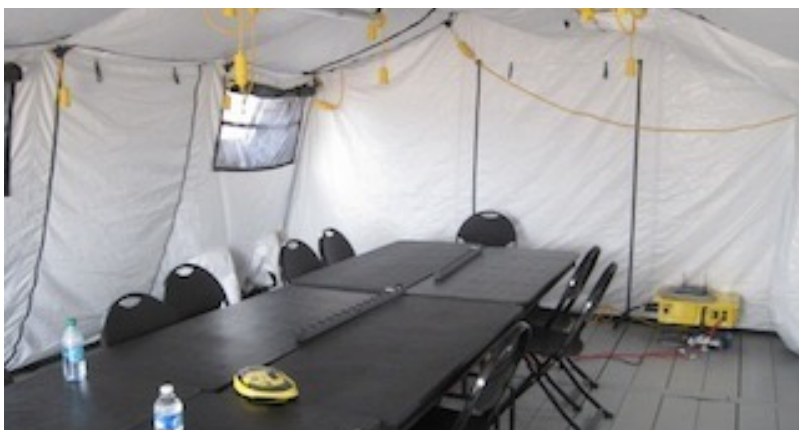
Event Location

7 – 11 August 2023

McMillan Airfield at Camp Roberts

Closest Town: Paso Robles, Atascadero, San Luis Obispo

Closest Airports: San Luis Obispo (45m), Monterey (1h30m),
Bakersfield (2h), San Jose (2h15m), SF (2h40m)

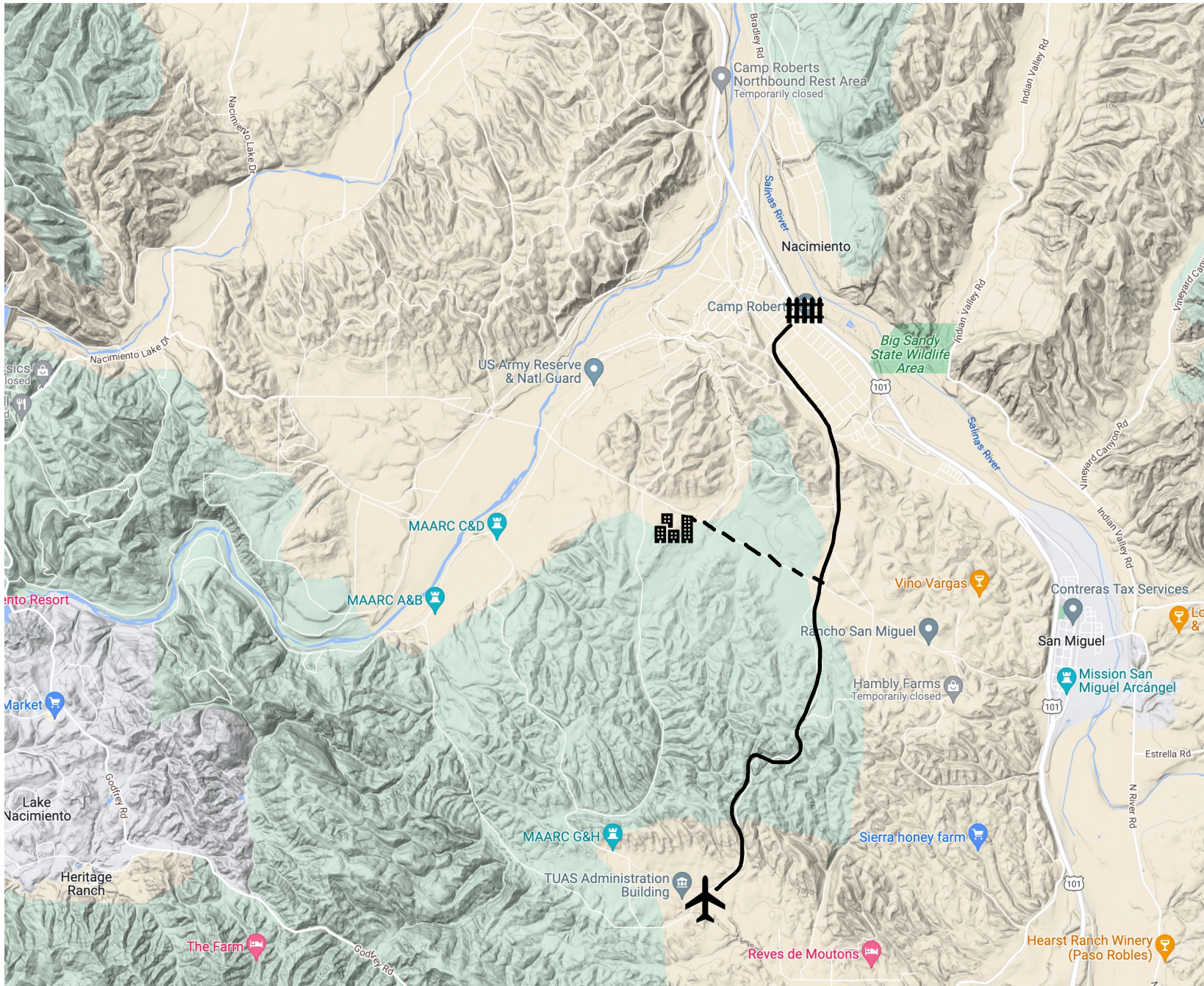


Camp Roberts Facilities: McMillan Airfield



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.



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 Schedule

Monday: 0900 Venue/Registration Opens

1000 Event Kick-Off Brief*

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

1200 Event Closing Brief*

Experimentation

Fri. Clean-up (As Needed)

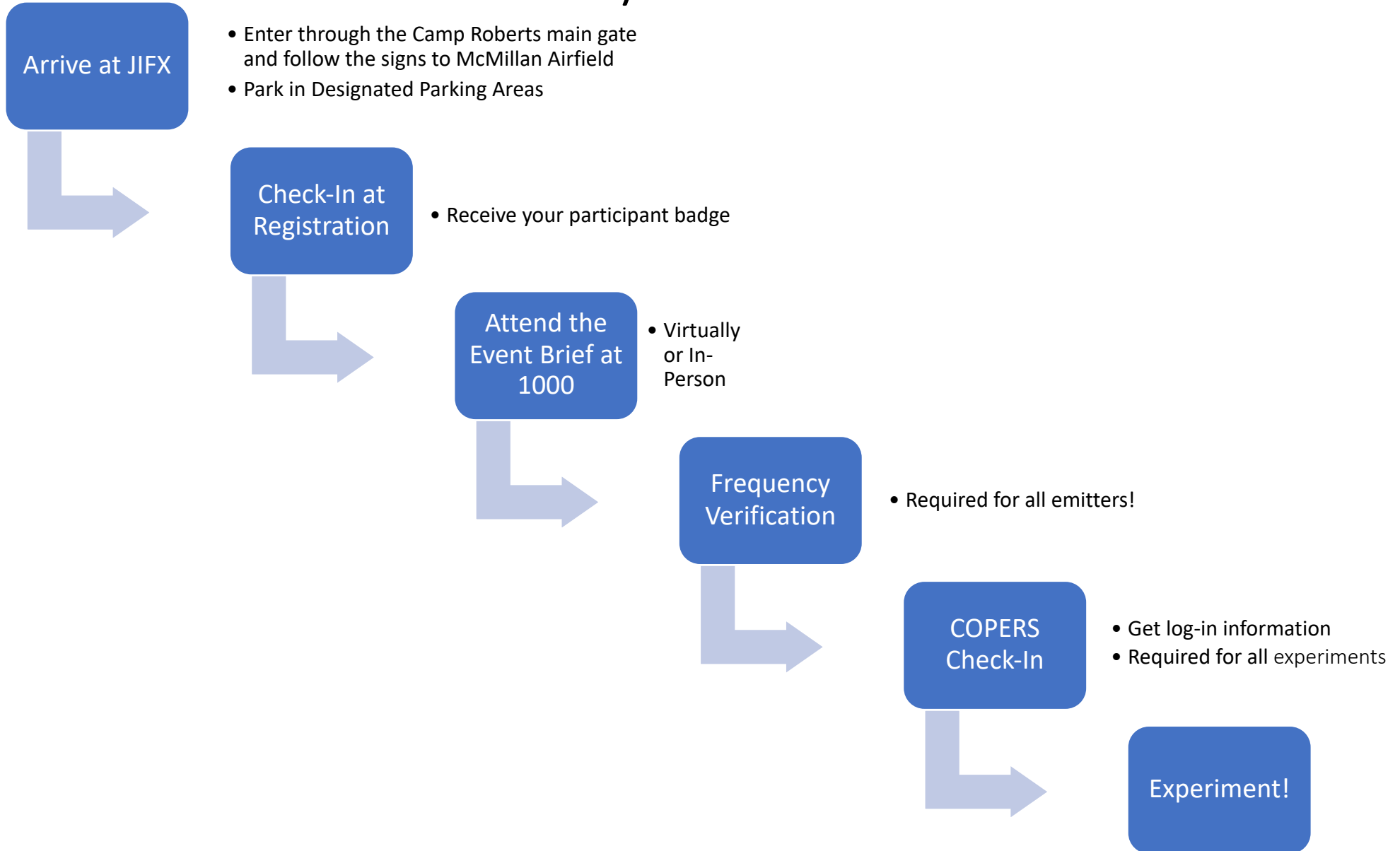
*All Briefs will be broadcast for virtual participation.

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 deadline: 28 July 2023

Monday Schedule



Experiment Introductions

- Introduction of Experiment
- How can you support other experiments?
- How can other experiments integrate with you?
- Share contact info in the chat

1-2 minutes each

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



- **Emergency Services are 30-45 minutes away**
- 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.

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.

- 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 UAVs and Frequency Emitting devices must be verified by the airboss prior to flight approval. Expect to complete this on Monday or Tuesday of JIFX week.
- 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.

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

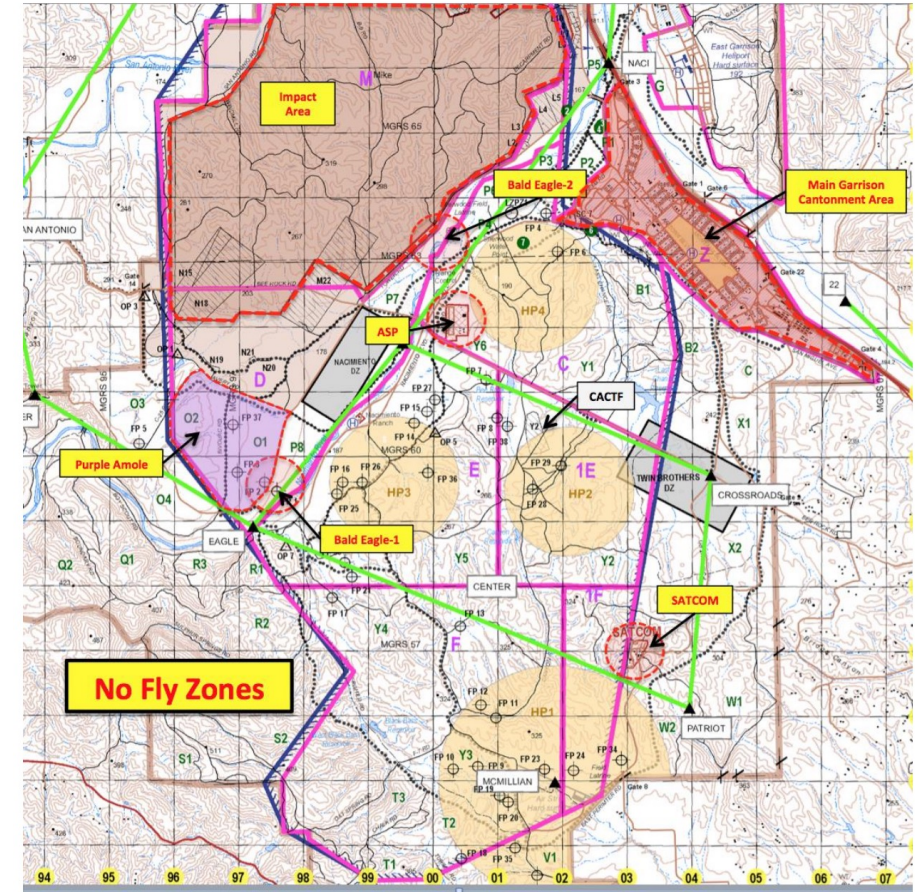


Figure 3: Camp Roberts Restricted Operating Zones (A-F, M, Z), No Fly Zones, and Holding Points within the R-2504

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.”

JIFX Networks



Communications

Local IP networking (Ethernet,
WiFi)

- McMillan Airfield
- CACTF

Limited Internet connectivity

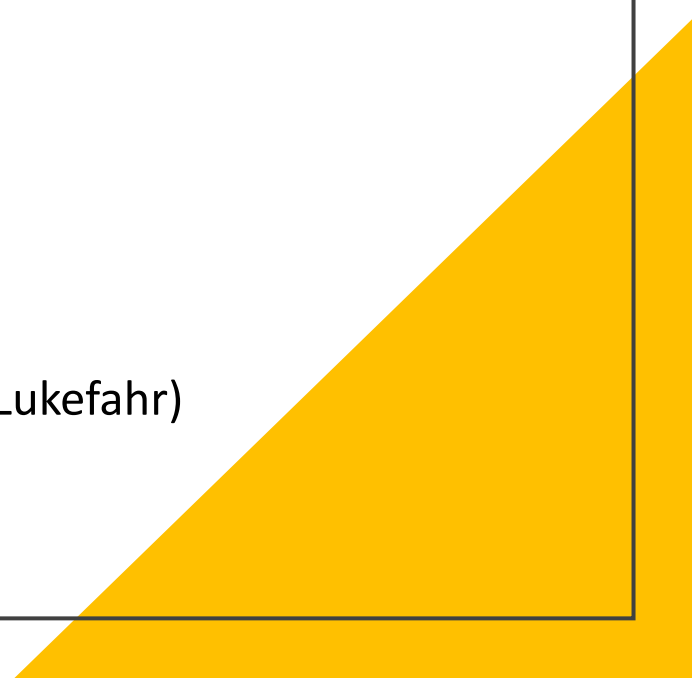


Information Technology (Camp Roberts)

Printing @ McMillan Airfield
Tactical Assault Kit (TAK)

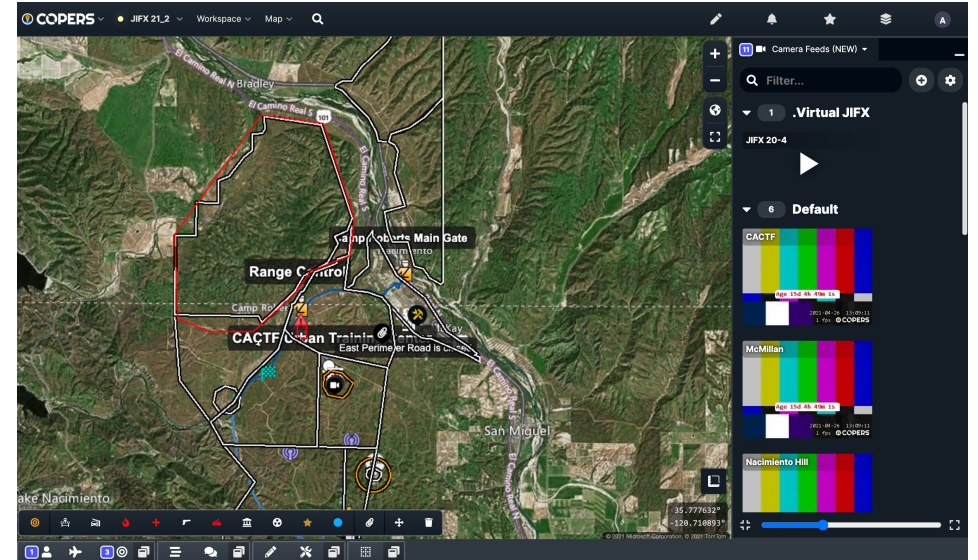
Cursor-on-Target
debugging/routing

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.

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/>

24 ADS-B 7 Active Members Drawing Overlays Geofences 6 COT-ISA john.leininger

Filter...

- 0 ALPHA
- 0 Armory
- 0 BRAVO
- 5 CACTF
- 9 Camp Roberts and nearby
- 0 CHARLIE
- 0 Comms
- 0 DELTA
- 0 Eagles Nest
- 0 ECHO
- 9 ECHO 1
- 0 FOXTROT
- 0 FOXTROT 1
- 0 Impact Range
- 0 McMillan Airfield
- 0 MIKE
- 0 Tree 650 MSL
- 0 ZULU

2 Advisories Weather GeoChat

5 Camera Feeds Messages

Locate Open Reset

- LRISN-Day
- LRISN-Thermal
- ISN2-Day
- ISN2-Thermal
- Twitch Feed



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

COPERS JIFX_20_4 100 john.leininger

5 Camera Feeds Messages

Locate Open Reset

- LRISN-Day
- LRISN-Thermal
- ISN2-Day
- ISN2-Thermal
- Twitch Feed

10 Active Members 10 COT-ISA

Filter... Show Hidden:

- Alpha November a few secon...
- Bravo Oscar a few secon...
- ChaseBO a few secon...
- Ladder a few secon...
- LadderChase a few secon...
- LadderProgramed a few secon...
- chase BO 10 minutes
- chase BO Linear a few secon...
- chase ladder linear a few secon...

23 ADS-B Drawing Overlays Geofences HAZMAT ERG 2 Advisories Weather GeoChat

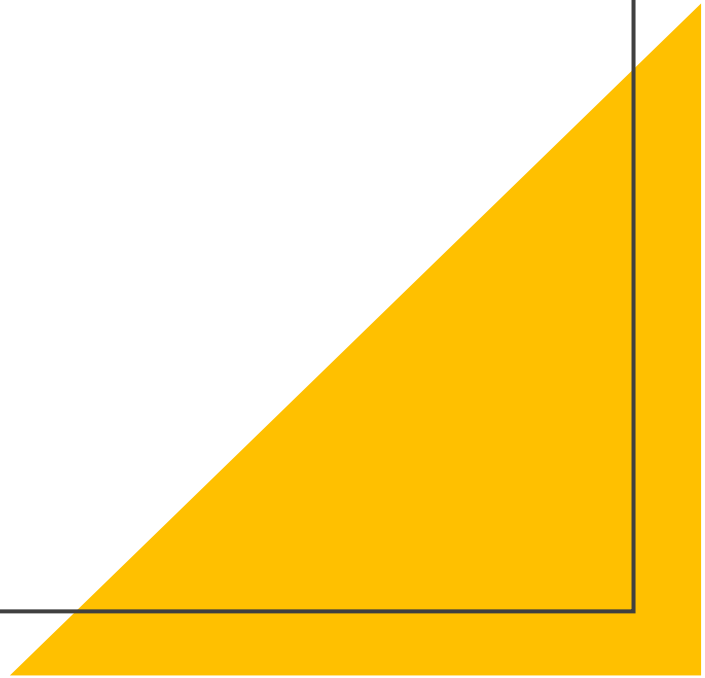
35.76600° -120.77449°

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 Calls

- Event Safety
- Networks
- Vulcan Integration
- Experiment Introductions & Collaborations





Questions?

Ashley.book@nps.edu