



Training Guide

IT ALL STARTS HERE:

<http://copers.tdkc.com>



Launch page for the Common Operating Picture (COP) and links to the app stores for WatchTower (mobile application optional)

(redirects to https://www.tdkc.com/MOLES_Server/)

❑ Click to sign into the COP



COPERS
COMMON OPERATING PICTURE

COPERS Common Operating Picture (COP) provides real-time situational awareness of your connected team and equipment for short-term events, long-term day to day operations, and coordinated emergencies. COPERS provides a broad array of tools and integrations including Cursor on Target (CoT), Android Team Awareness Kit (ATAK), Integrated Sensor Architecture (ISA), ADS-B, geofencing, adhoc shared map drawing, geochat and video conferencing, biomedical sensor status, medical reports, cameras feeds and live streams, forms and checklists, and equipment management. Designed for tablets to laptops to Big board ops centers, COPERS provides the customizable COP to integrate your event.

[Sign In](#)

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WAVE FRAMEWORK | Air Force Research Lab Sensors Directorate | centauri

Enter a name or callsign-
how you wish to be
identified in the list of active
users

Select an event

Please Sign In



Name or Callsign

Event
Select an Event ▾

- .Fire WPAFB
- .SFS SAFB
- .SFS WPAFB
- Air Force National Guard
- COVID-19
- JIFX 21_2
- RQOE
- Test Event 6
- Top 3 SOF

Select your group

Enter the password

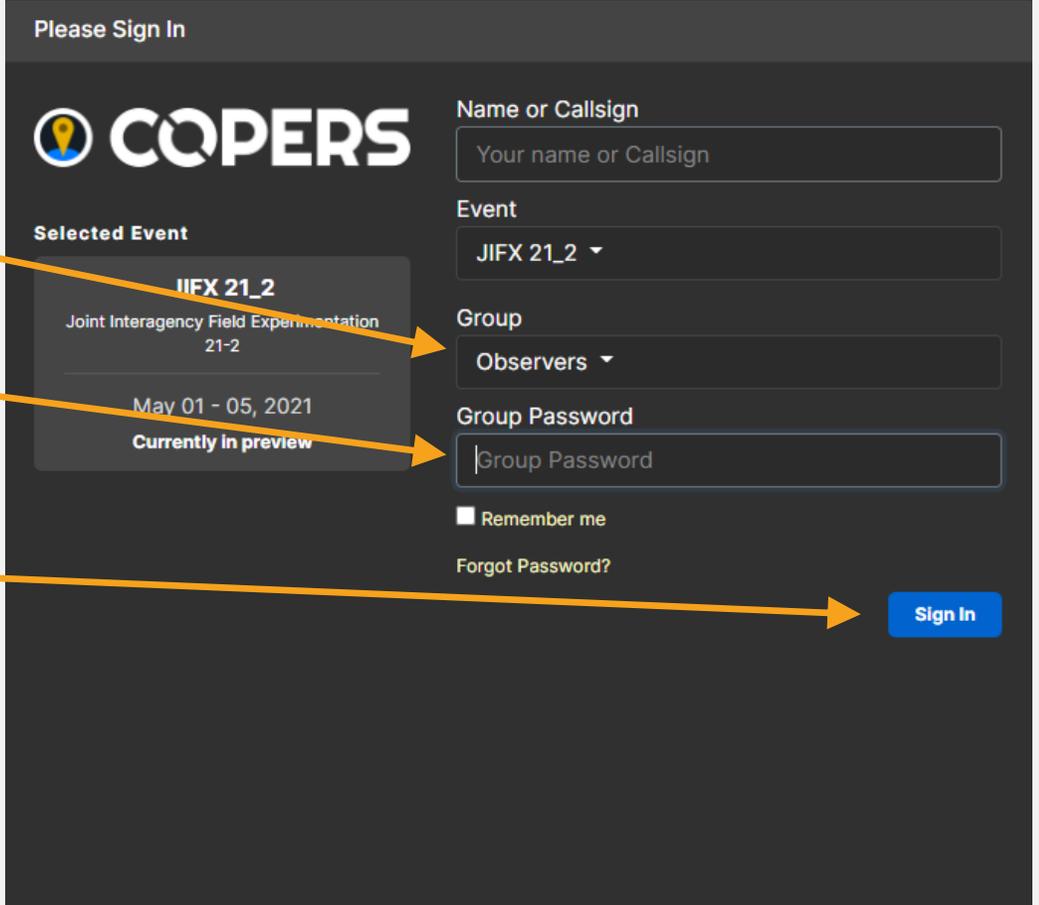
See an event administrator for password.

Click “Sign In”

Groups:

The group you select will in part determine what other users you are associated with for broadcast communications. It will also determine your icon on the map.

Groups are configured with the event so this list can be changed.



Please Sign In

 **COPERS**

Name or Callsign

Your name or Callsign

Selected Event

IIFX 21_2

Joint Interagency Field Experimentation
21-2

May 01 - 05, 2021

Currently in preview

Event

JIFX 21_2

Group

Observers

Group Password

Group Password

Remember me

[Forgot Password?](#)

Sign In

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CAPABILITIES

Capability Overview

Search, Marking, Refresh, and Event Login Options

Tools, Reference Data, Actors and Communication, Summary

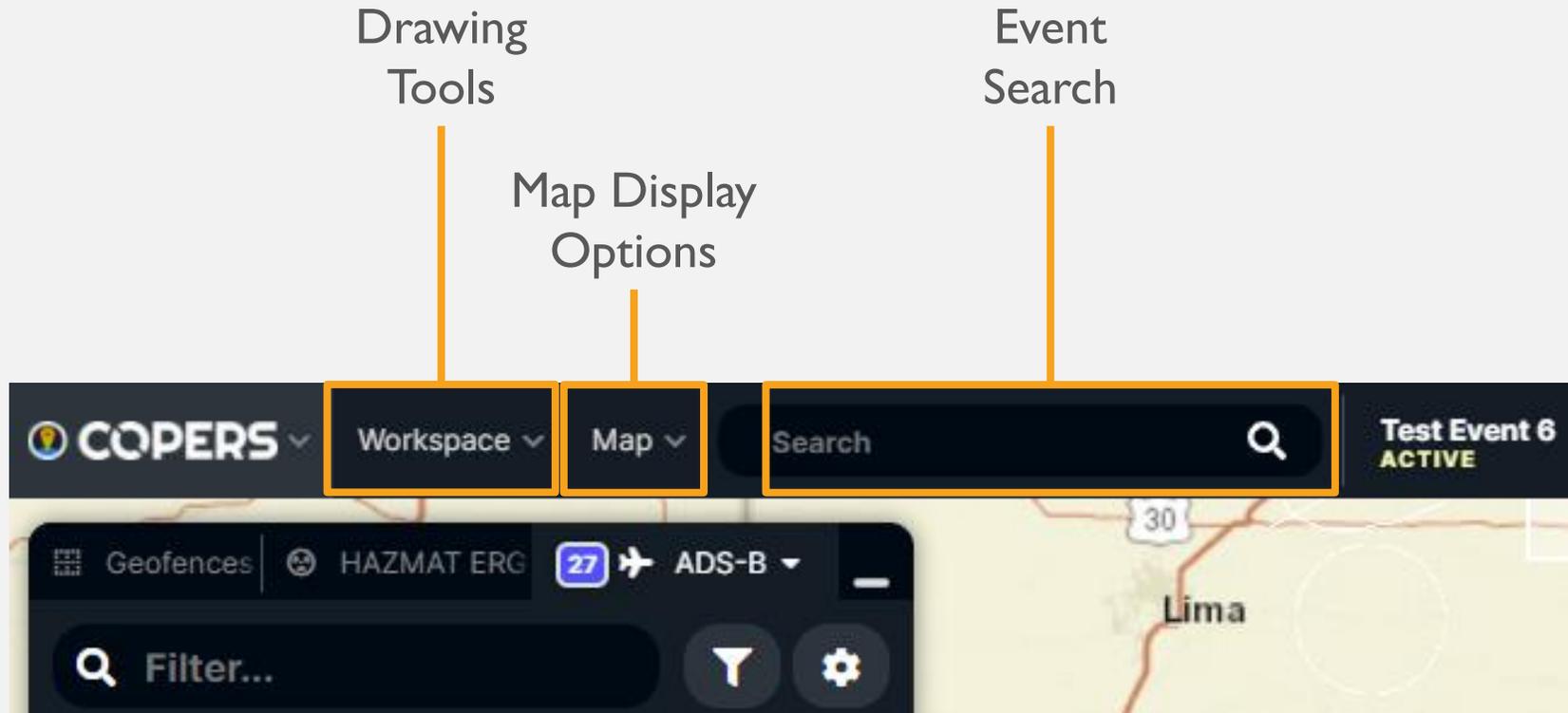
The screenshot displays the COPERS application interface. At the top left, there is a navigation bar with 'COPERS' and a dropdown arrow, and 'Test Event 6' with a yellow dot. The top right corner contains search, edit, refresh, and notification icons, along with a user profile icon labeled 'user'. The main area is a satellite map of an airport area with various yellow and red markers and dashed yellow lines indicating boundaries. On the left, a sidebar lists filters and a list of users with their last activity times. On the right, a sidebar shows 'GeoChat' settings, 'Groups' (5 chat rooms), 'Teams' (White), 'Roles' (HQ), and 'Contacts' (ty.hayden, nbuhrman, JL-WinTAK, JL-ATAK, JL). At the bottom, a navigation bar includes '15 Active Members', '37 ADS-B', 'Summary Count', 'Messages', 'DIM Summary', 'Equipment Status', and 'Task List'. A bottom toolbar contains icons for location, camera, move, delete, and other map functions.

CORDON/Quick Drop Icons/
Camera, Move, Delete

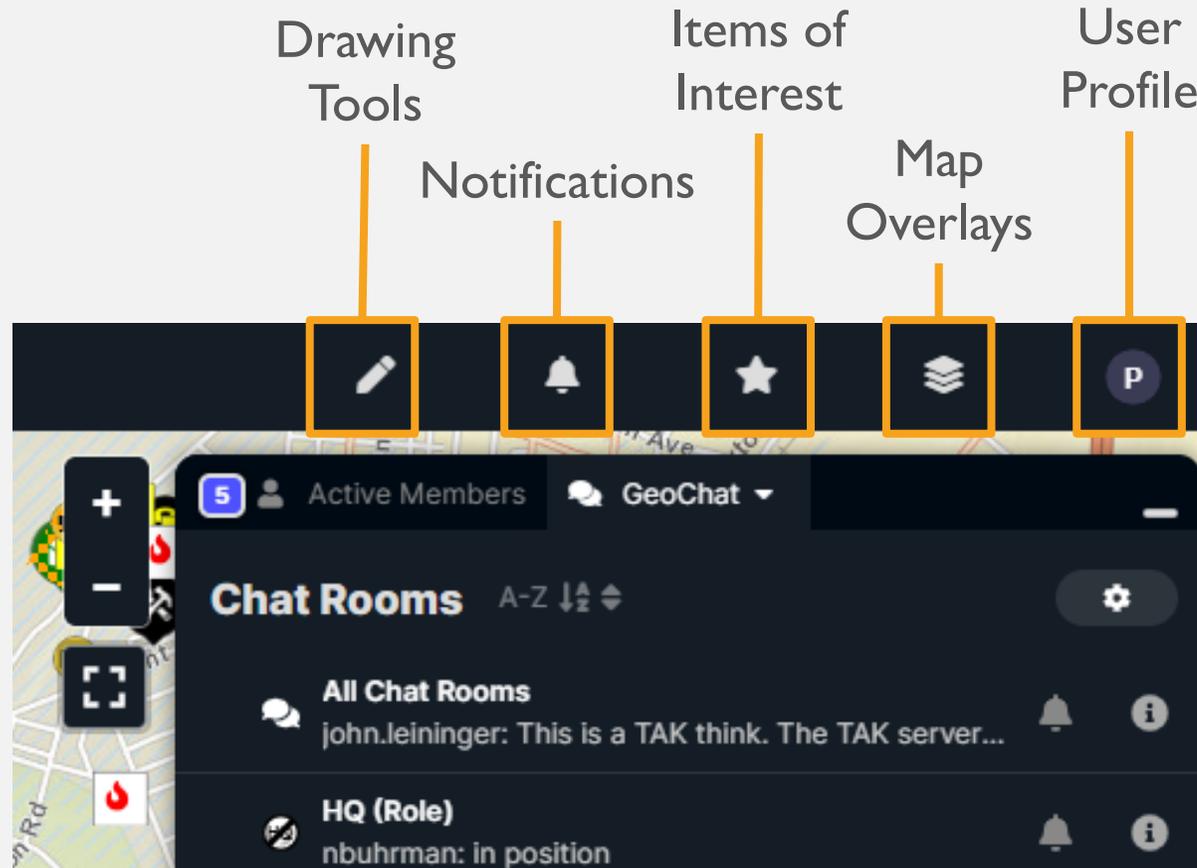
Map

TITLE BAR TOOLS

Workspace, Map and Search



Drawing Tools, Notifications, Items of Interest, Map Overlays, and User Settings



Drawing Tools Overview

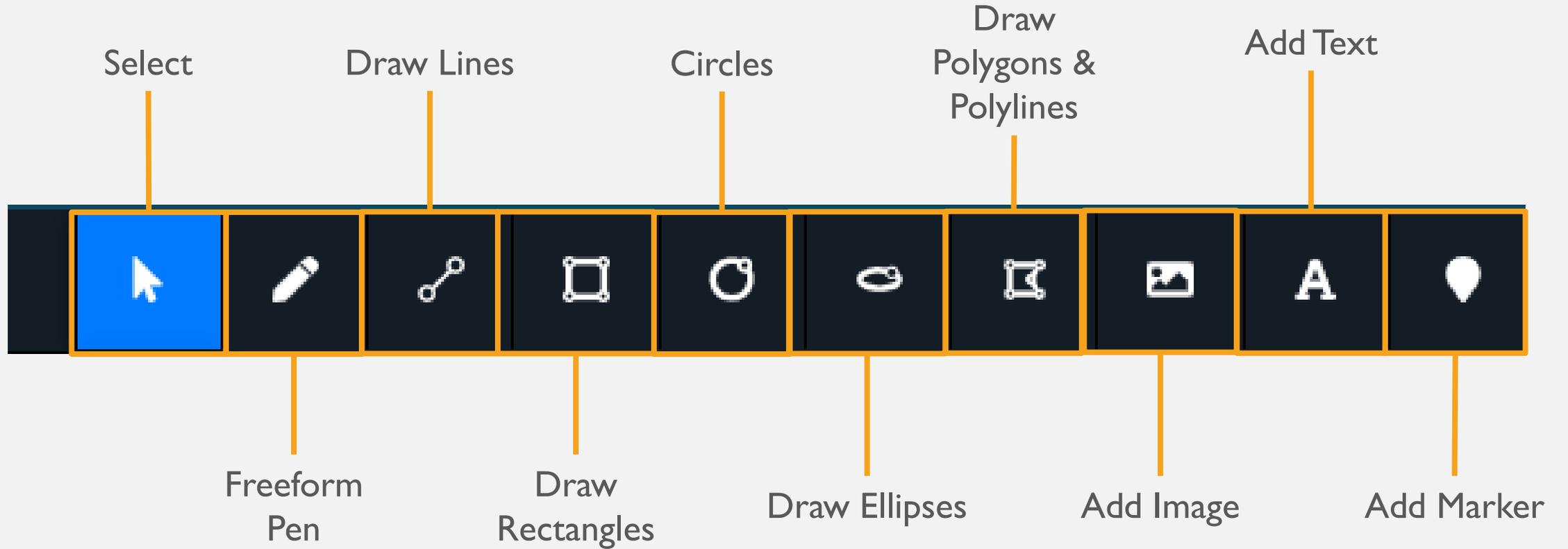
View Attributes, Items, or both in Split View

Draw Tools and Elements

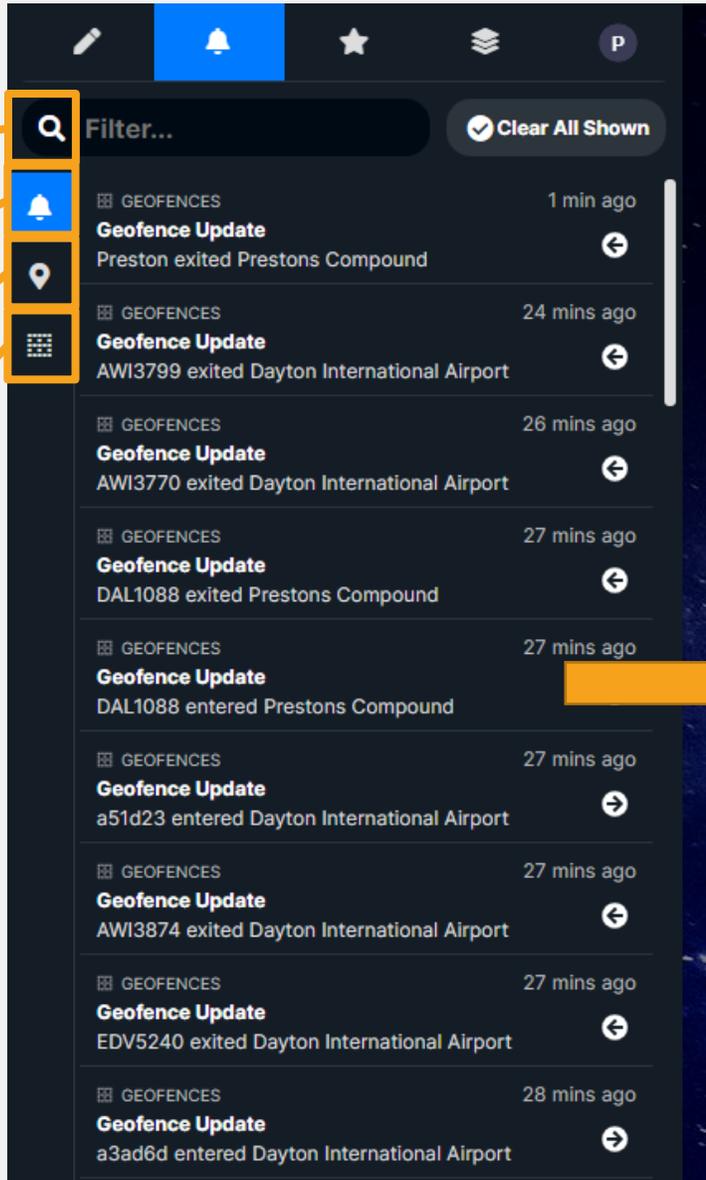
Return to Workbench

The screenshot displays the COPERS software interface. At the top, there are three tabs: 'Attributes', 'Items', and 'Split View' (which is highlighted in blue). Below these tabs is a toolbar containing various drawing tools: a selection tool (arrow), a line tool, a polygon tool, an ellipse tool, a rectangle tool, a circle tool, a line tool, a text tool (A), and a location pin tool. To the right of the toolbar is a 'Return to Workbench' button. The main area is a map of an urban area with several yellow dashed lines and shapes overlaid, indicating drawing elements. A sidebar on the left contains a list of drawing tools under the 'Default' category, including Polygon 1, marker 1, Ellipse 1, Polygon 2, Prestons Paper Route, Polygon 1, Line 3, Line 2, Line 1, Circle 1, Image, and Image. The bottom right corner of the map shows the coordinates: Lat: 39.796279°, Lon: -84.101105°.

Drawing Tools



Notifications



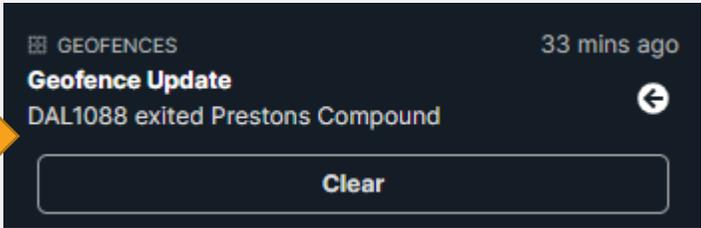
Free text filter

All Notifications

COP Users

Geofences

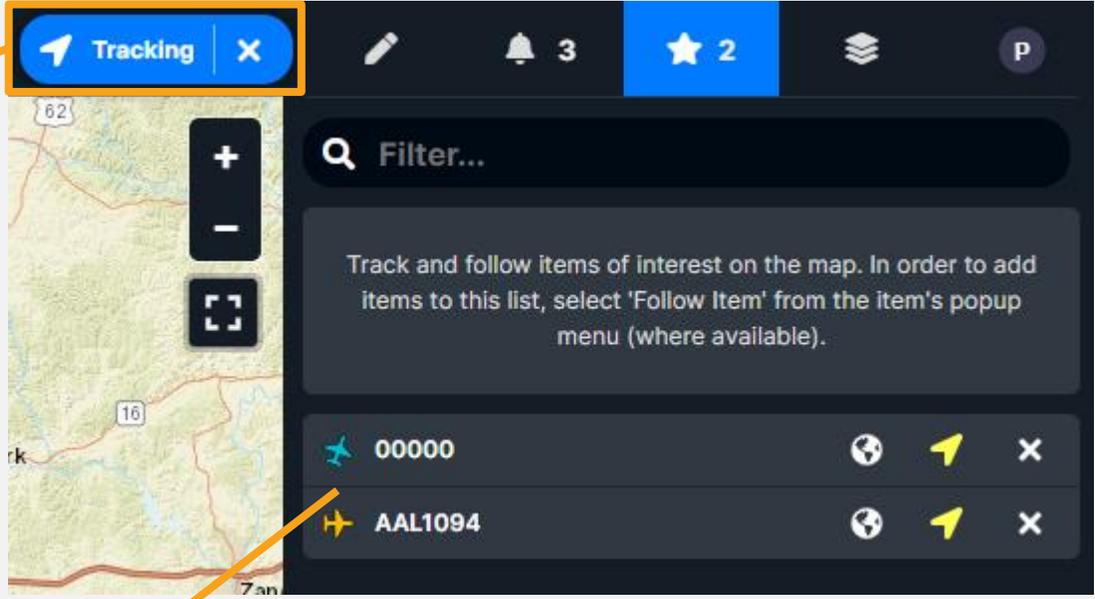
Notifications allows users to view all existing Notifications, Clear All Notifications, or clear individual Notifications.



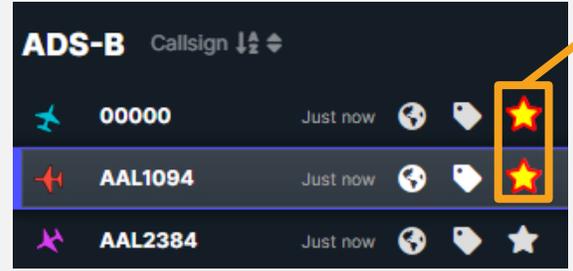
Clicking on a notification allows it to be cleared from your display.

Items of Interest

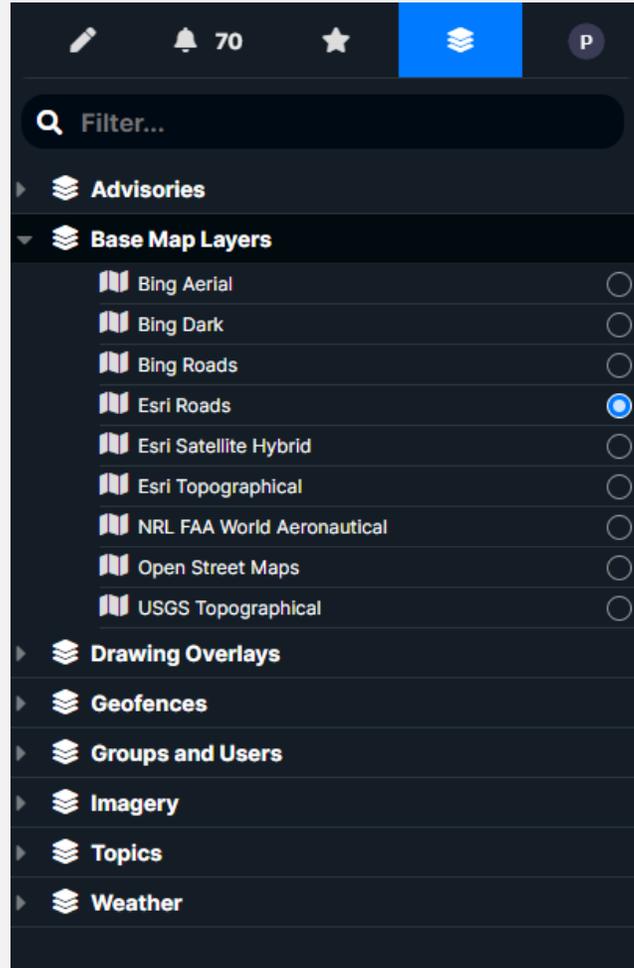
Tracking Status



A list of high interest items on the map. User selected, by clicking the STAR next to items in various tools. All items will be tracked and remain in view. If you move the map or zoom in/out tracking will pause

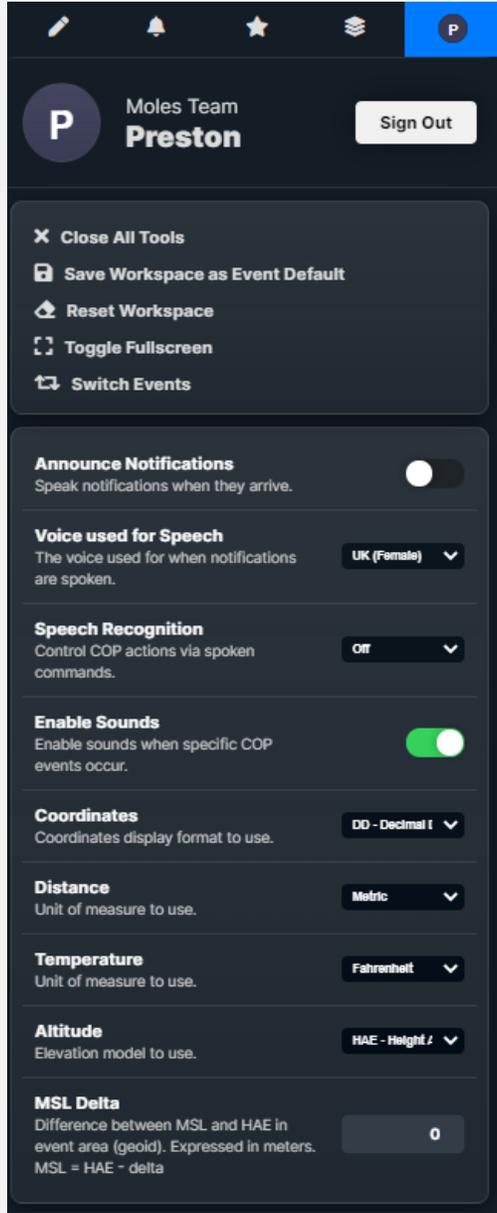


Map Overlays



Map Overlays displays all overlays being used in COPERS and provides the ability to turn overlays on and off.

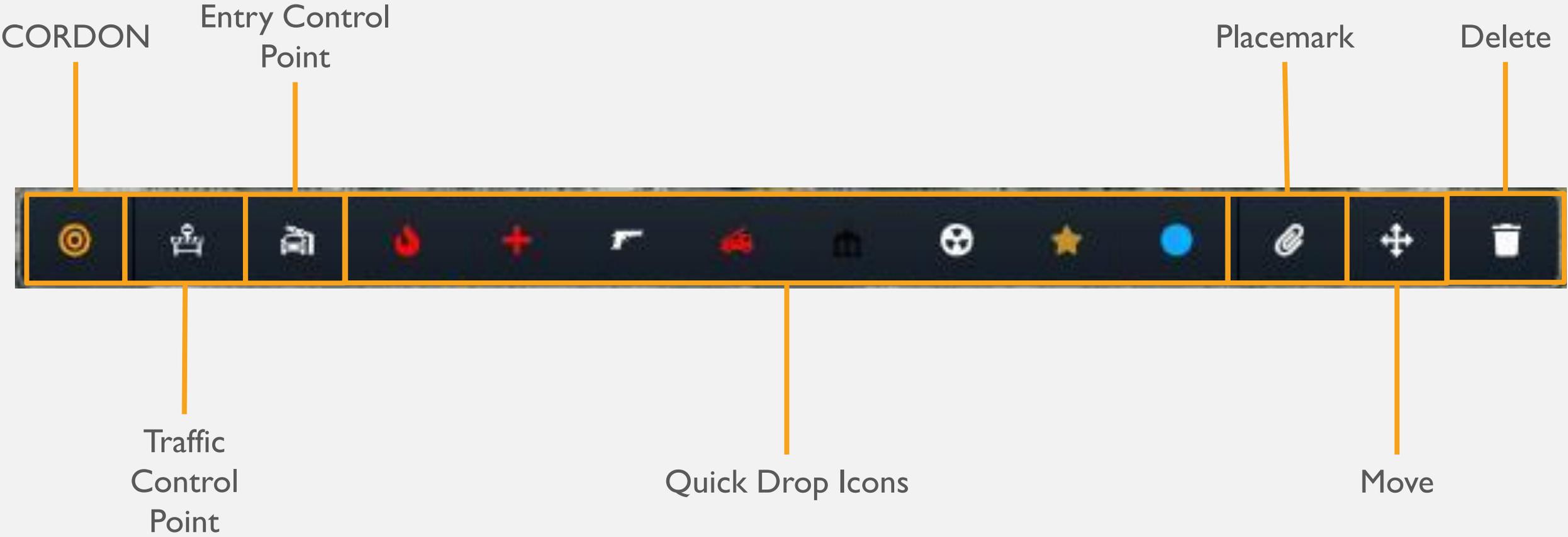
User Profile



User Profile allows users to Sign Out of the event, Close All Tools, Save Workspace as Event Default, Reset the Workspace, Toggle Fullscreen, Switch Events, and select options for the current event.

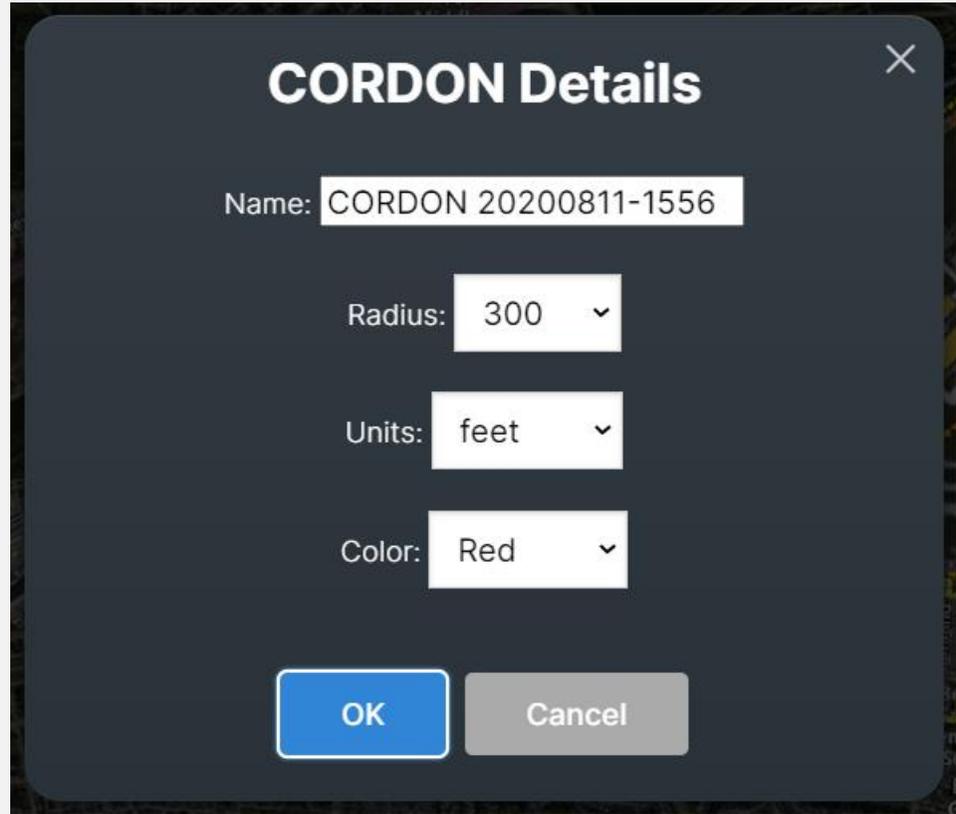
CORDON/QUICK DROP ICONS

CORDON/Quick Drop Icons/Camera, Move, Delete*



*Some features enabled/disabled based on user role and may be unavailable.

CORDON



CORDON Details [Close]

Name:

Radius: [Dropdown]

Units: [Dropdown]

Color: [Dropdown]

Selecting CORDON, then clicking a location on the map and dragging the circle to the desired radius allows the user to enter a name, a radius, and a color. Clicking “Ok” when complete adds the CORDON Geofence to the map.

Quick Drop Icons



Quick Drop Icons provide quick select-and-drop icons for traffic control, entry control points, fire, triage, active shooter, fire truck, command post, hazardous material, stars, and points. The icons may be placed on the map by clicking the icon, then clicking the desired location on the map. After placing an item, more items may be placed without re-clicking that icon. Items may also be moved after placed as long as a different icon has not yet been selected.

Placemarks, Move, Remove



The Paperclip Icon provides the capability to attach a file (image, document, etc.) to a placemark on the map. Selecting the icon and selecting a file in the pop-up window will attach a file to a placemark. The position, contents, and any additional information about the placemark may be accessed or edited using the Attach tool ().

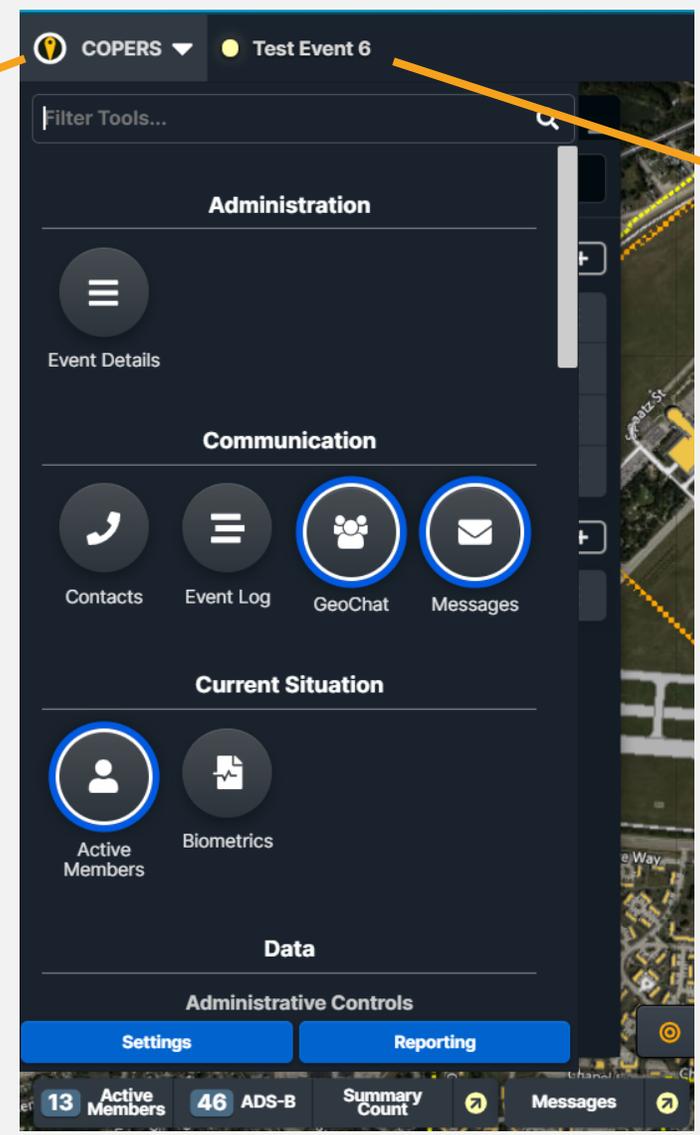
The Move Icon allows the user to move any icon on the map by left-clicking the Move Icon, then clicking an icon on the map, moving it to the desired location, then placing the item by clicking again.

The Delete Icon allows the user to delete an icon by selecting the Delete icon, then clicking an icon on the map that will be deleted.

TOOL AND SUMMARY SELECTION

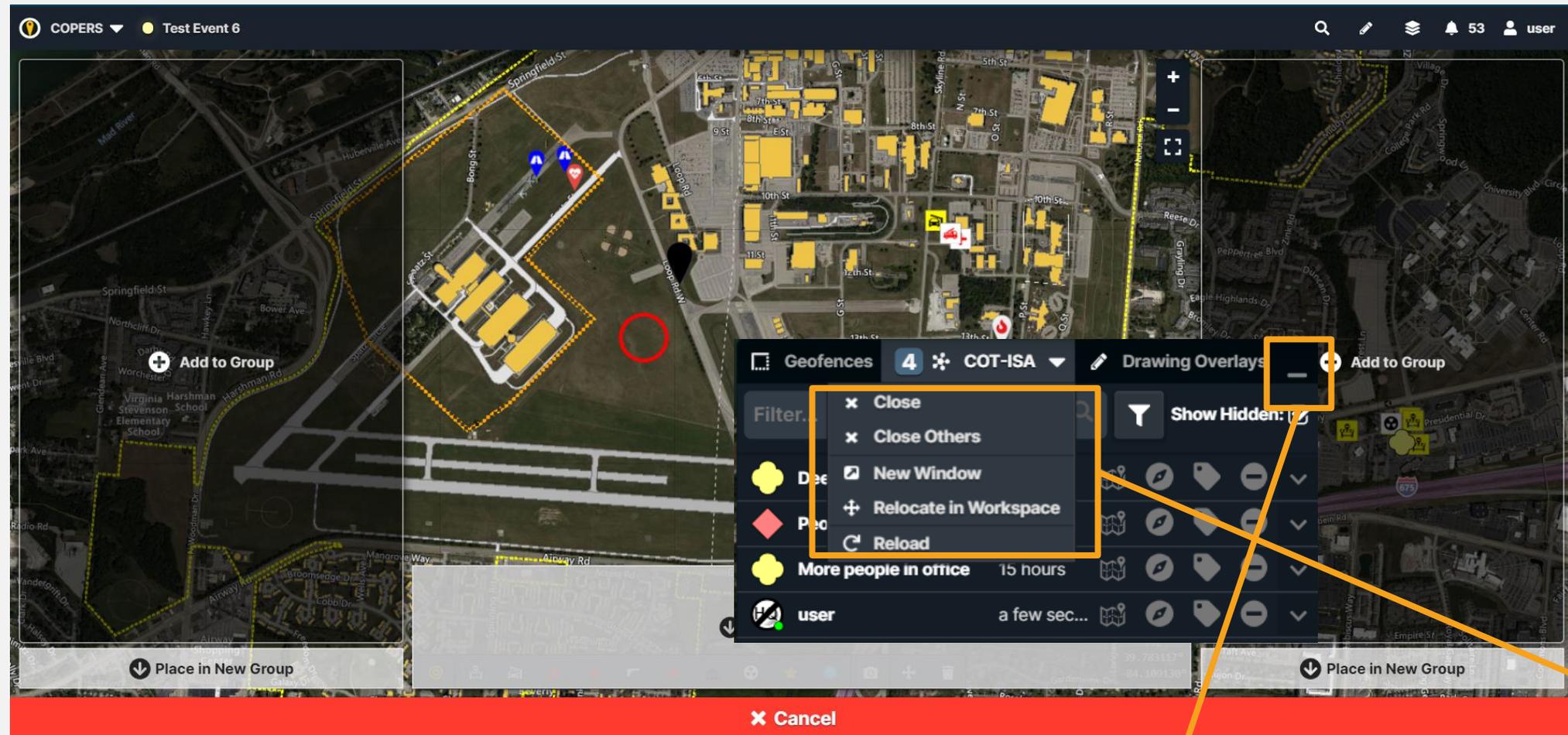
Tools, Reference Data, Actors and Communication, Summary

Tools, Reference Data, Actors and Communication, and Summary selections may be made by clicking on the COPERS drop-down in the top left corner.



Yellow pulsing dot indicates event is active.

Tool Location Selection



When a tool is selected the user is prompted to select the location of the tool. Multiple tools may be placed in a group

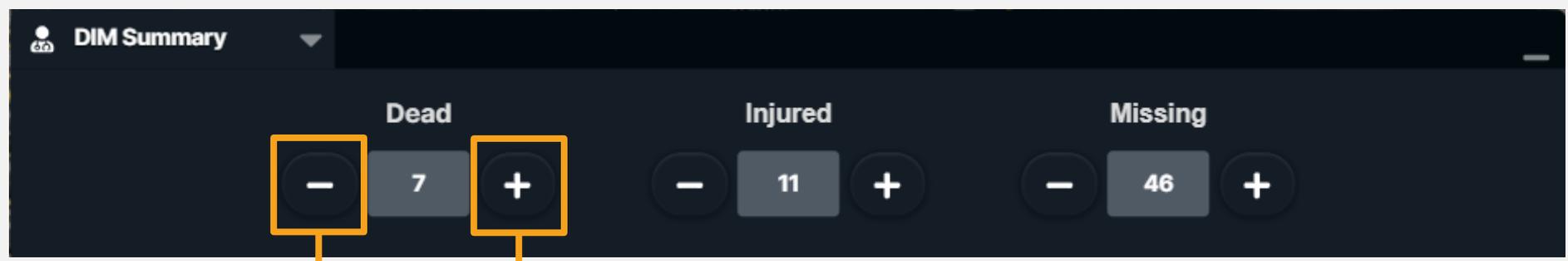
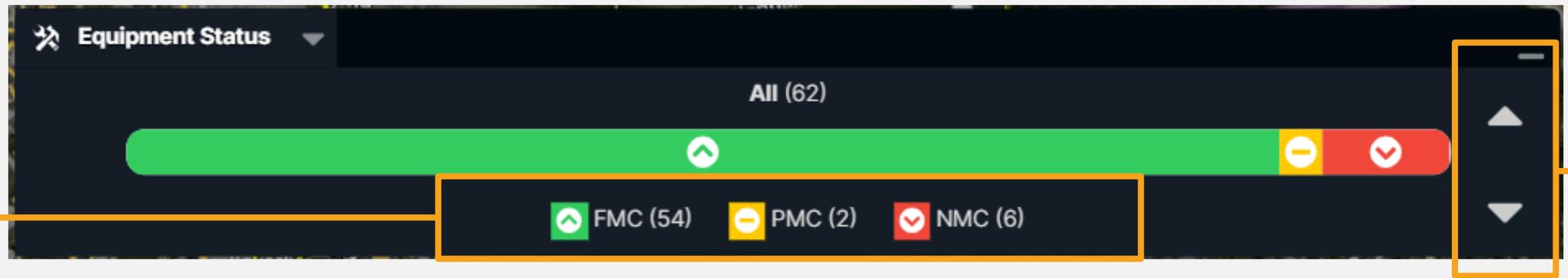
Drop-down tool options such as close, close other tools, open in a new window, or relocate in the workspace are available

Tool groups may be minimized to the bottom of the screen or restored.



Summary and Roll-Up

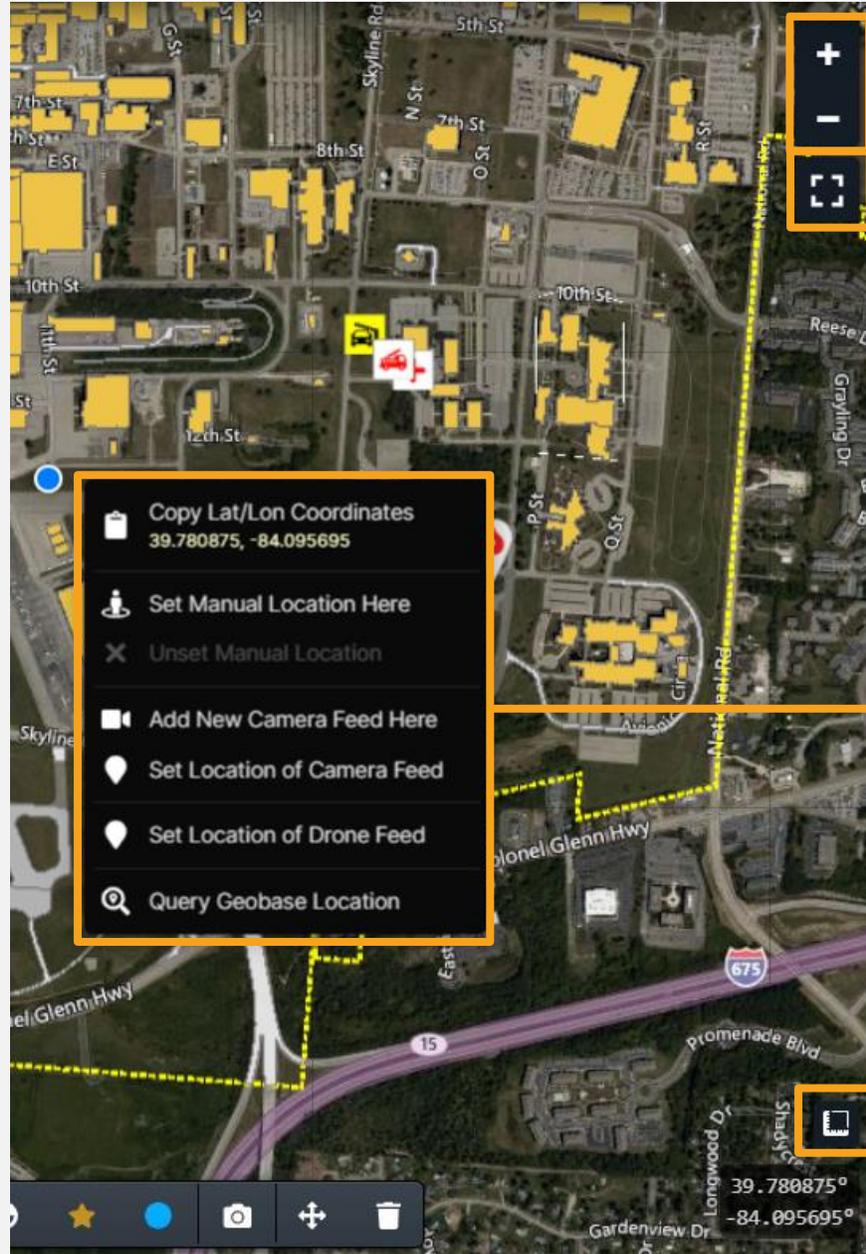
Legend and Numerical Count



*Some features enabled/disabled based on user role and may be unavailable.

MAP CAPABILITIES

Map Capabilities



Zoom In/Out

Center on Event

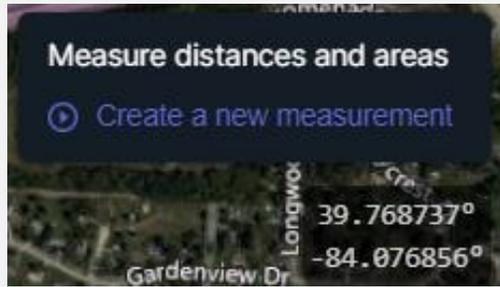
- Copy Lat/Lon Coordinates
39.780875, -84.095695
- Set Manual Location Here
- Unset Manual Location
- Add New Camera Feed Here
- Set Location of Camera Feed
- Set Location of Drone Feed
- Query Geobase Location

Options provided by right-clicking map

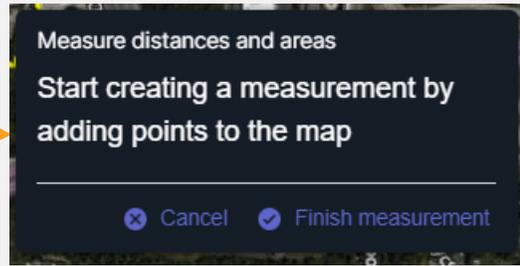


Measure Distances/Areas

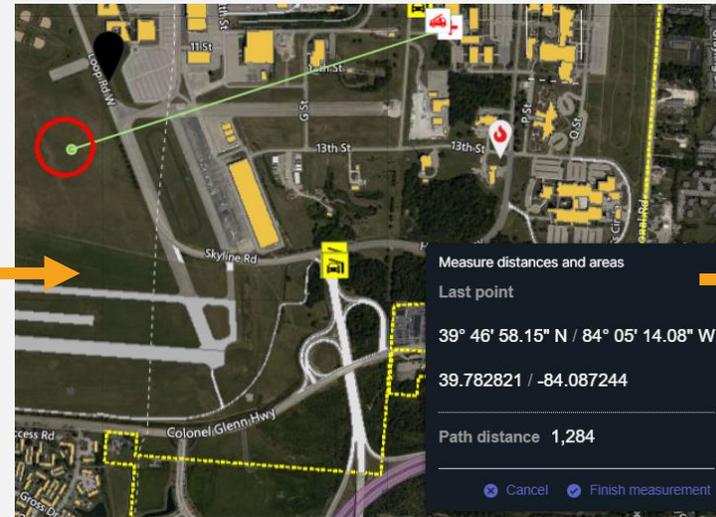
Measure Distances/Areas



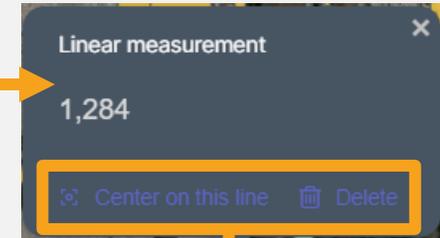
Click the Measure Distances /Areas. Click “Create a new measurement”.



Click on two points on the Map to get distance measurements or click several points to create a polygon and obtain the area.



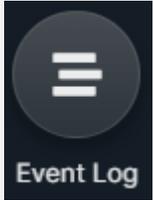
Click “Finish measurement” or “Cancel”.



Once a measurement is obtained, the distance or area may be centered on the map or deleted.

COMMUNICATION

Event Log



The screenshot shows the Event Log interface with a list of messages. The messages are as follows:

Sender	Message	Date	Time Ago
ty.hayden / Moles Team	This should not be read outloud here... the Text to voice should be on the geochat tool	6/4/2020	265 days ago
John.Ieininge / Moles Team	Buddy, you're a boy, make a big noisePlaying in the street, gonna be a big man somedayYou got mud on your face, you big disgraceKicking your can all over the place, singin'We will, we will rock youWe will, we will rock you	6/4/2020	265 days ago
ty.hayden / Moles Team	test	6/18/2020	251 days ago
John.Ieininge / Moles Team	test2	7/30/2020	209 days ago
John.Ieininge / Moles Team	John.Ieininge / Moles Team shared a file 'HalfMarathonCourse2019.png' (4 mb)	8/7/2020	201 days ago
Nic.Buhrman / Moles Team	Test	10/27/2020	120 days ago
Preston / Moles Team	Preston / Moles Team shared a file '200x2005yrold.jpg' (26 kb)	2/24/2021	15 mins ago
Preston / Moles Team	Preston / Moles Team shared a file 'New Integrations.pptx' (1 mb)	2/24/2021	14 mins ago

At the bottom of the interface, there is an input area with a text field labeled "Send Event Log Message...", an attach file button (paperclip icon), and a send button (blue arrow icon).

Event Log allows users to send messages or files with other users. Submitting a log or attaching a file will be shared with all other event users. This is a rolling log and not intended for interactive chat. Use GeoChat for that.

Clicking an attachment will open it in a new browser window, or download the file

Attach a file

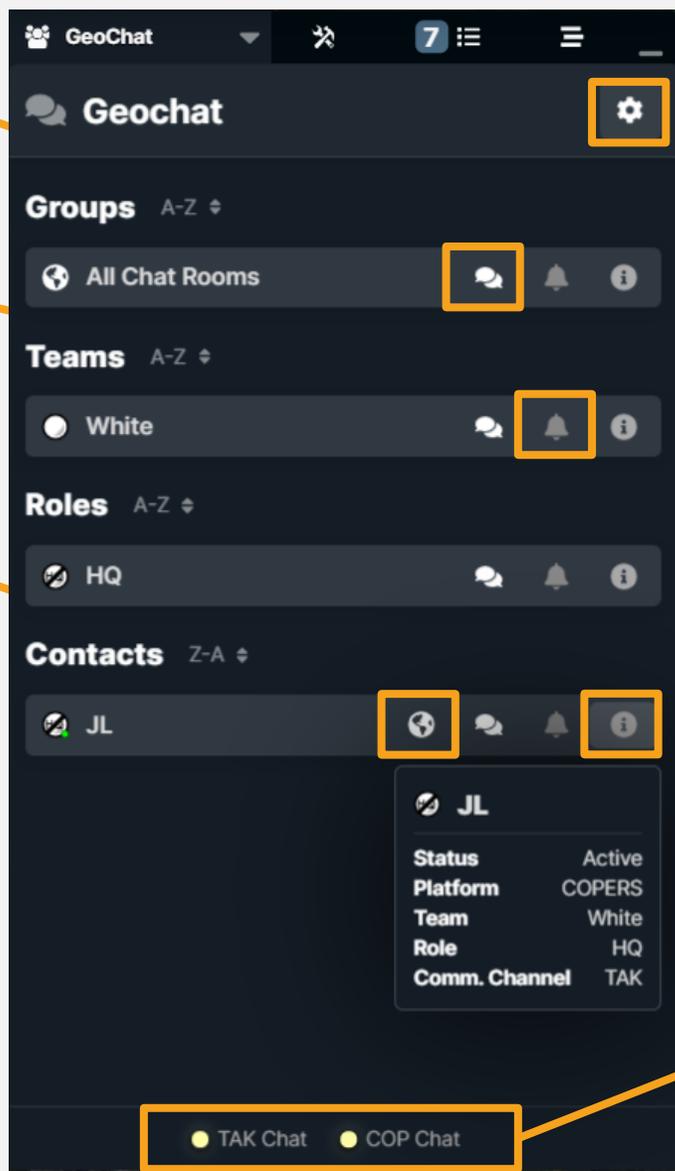
Enter text of log here

GeoChat

View Chats

Toggle Notifications

Fly To Location (if available)



GeoChat allows users (COP and TAK) to send and read messages.

Show or Hide Inactive Users

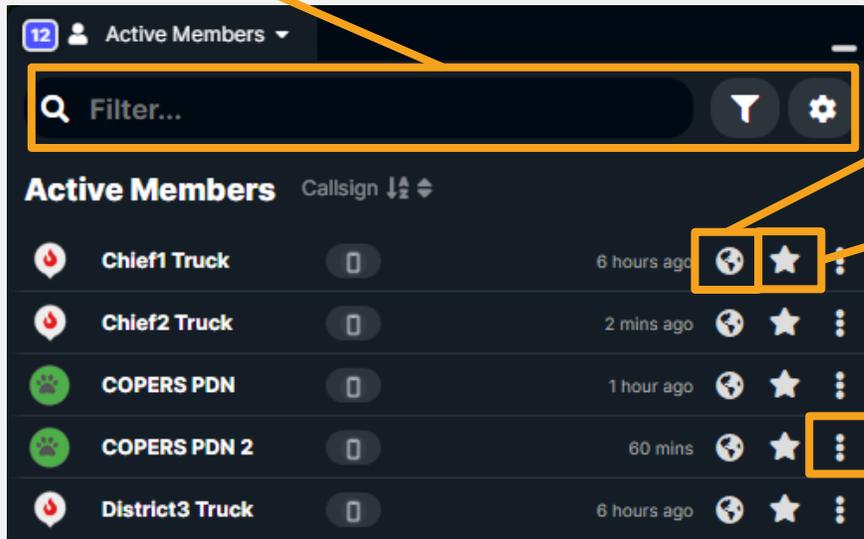
Info Details (if available)

Yellow marker indicates server is connected

CURRENT SITUATION

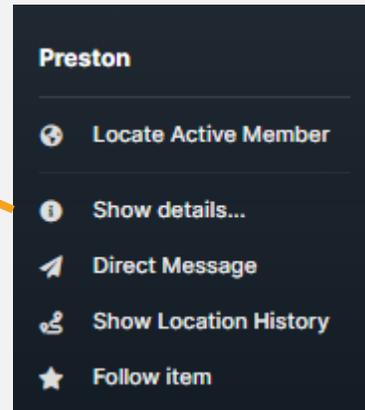
Active Members

Search

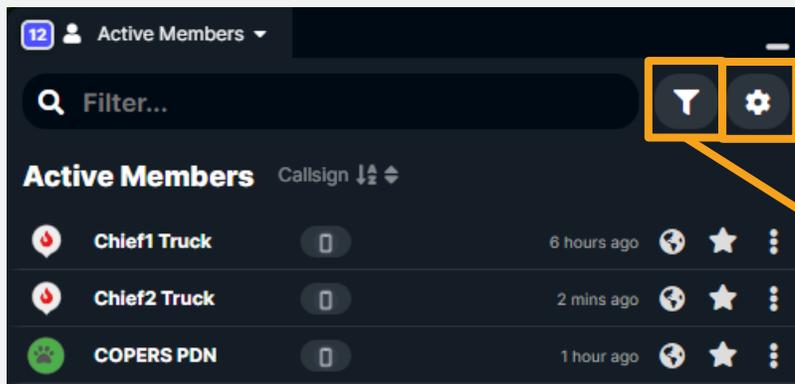


Fly to location

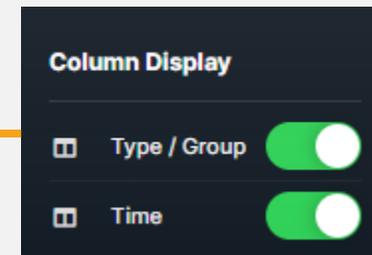
Mark as Item of Interest



The Active Members Tool provides the capability to view users' callsigns, groups and icon, turn on GPS tracking, how long the member has been logged into the event, collapse or expand a member, locate a member on the map, or filter members by geofence(s).



Change columns displayed



Filter Active Members by Geofence

Meteorological Aerodrome Reports (METARs)

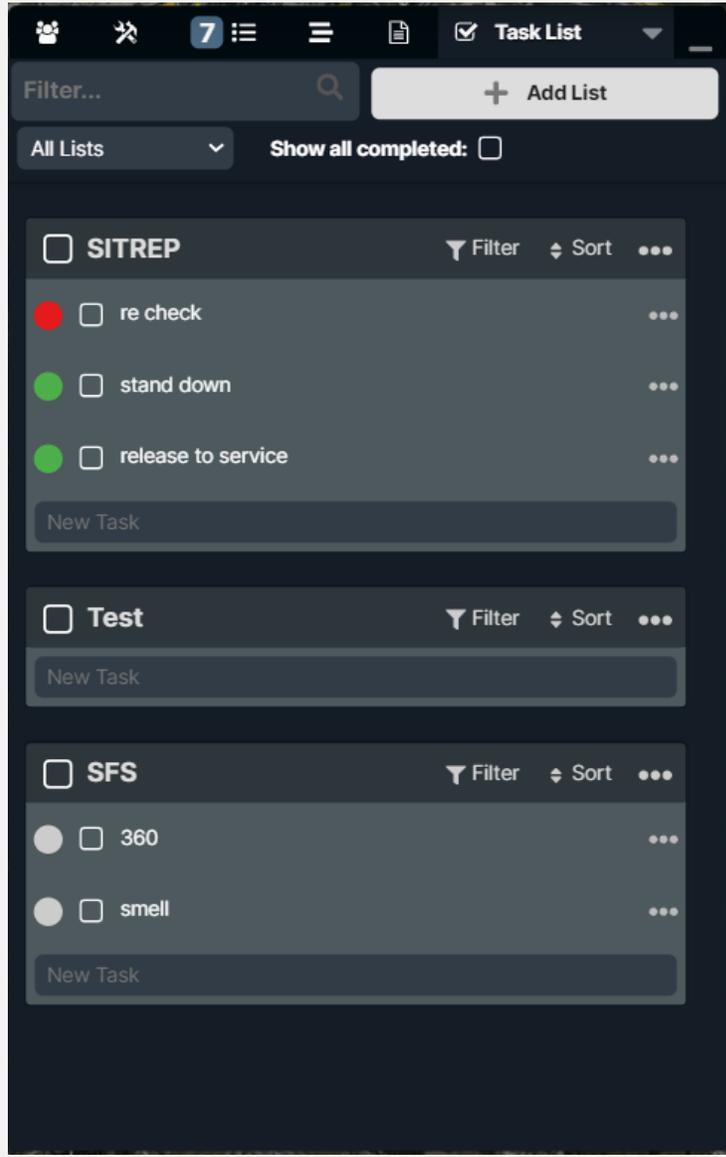
The screenshot shows a web interface for a METAR tool. At the top, there are navigation tabs: '11 Biometrics', 'Information Search', and '3 METAR'. Below the tabs is a search bar with a refresh icon and the text 'Filter...'. The main content is a table with the following columns: Observation Time, ICAO, Type, Wind (kts), Temperature ..., Flight Category, Latitude (°), and Longitude ... The table contains three rows of data:

Observation Time	ICAO	Type	Wind (kts)	Temperature ...	Flight Category	Latitude (°)	Longitude ...
2020-08-12T18:56:00Z	KFFO	METAR	5	28.7	VFR	39.82	-84.03
2020-08-12T17:56:00Z	KFFO	METAR	4	27.8	VFR	39.82	-84.03
2020-08-12T16:56:00Z	KFFO	SPECI	5	27.0	VFR	39.82	-84.03

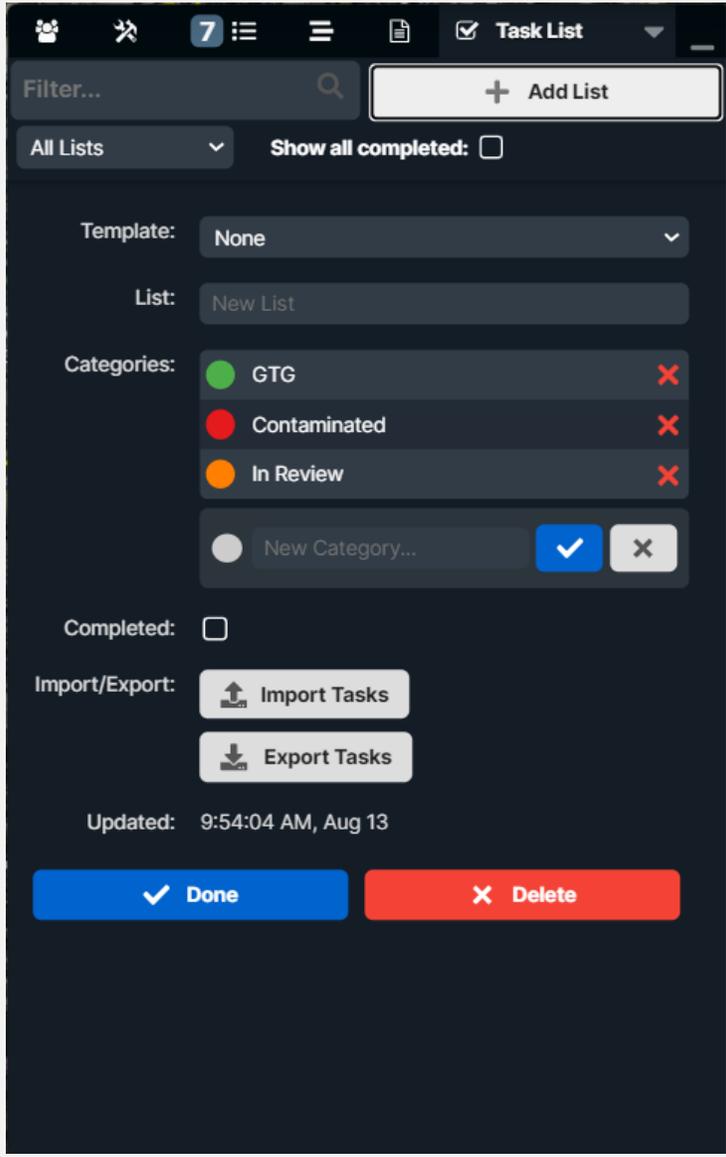
The METAR Tool Provides the current reports based on the event location.

Source: aviationweather.gov

Task List

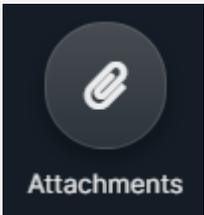


The Task List Tool provides and displays a color-coded task list. A single list may be displayed as well as a combination of all lists. Items may be checked on the list as complete and new tasks may be added by clicking and typing a new item. The list may also be sorted by completion.



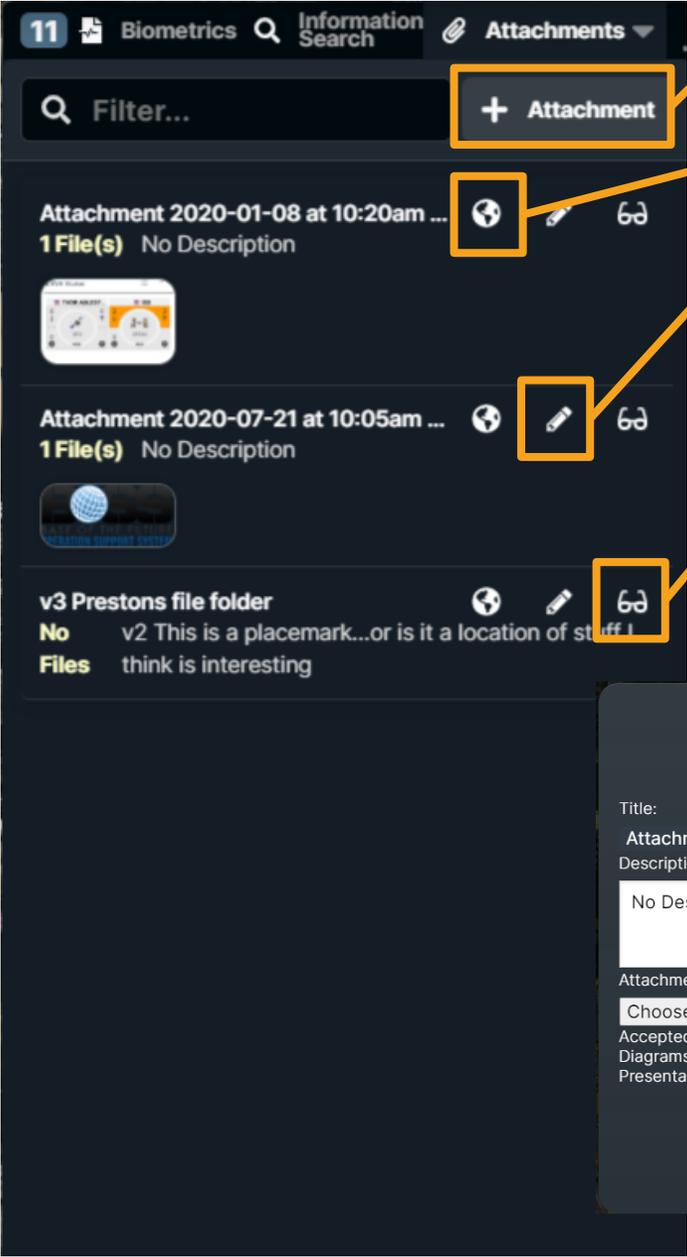
The option for adding a new list provides options such as the option of using a template, color coded categories, marking the list complete, and importing or exporting, tasks.

Attachments



The Attachments Tool provides the capability to attach and manage files at a given placemark for the event. Placemarks may be added and existing placemarks may be modified or removed.

NOTE: Images added to Attachments are available to the Image Viewer tools



Create New Attachment

Locate Attachment

Edit Attachment

View Attachment

Add Attachment
Enter properties for Attachment

Title:
Attachment 2020-08-13 at 10:19am / user

Description:
No Description

Attachment(s):
Choose Files No file chosen

Accepted file types: CAD Drawings, Calendars, Contacts, Diagrams, Documents, Images, Links, Metafiles, Photos, Presentations, Projects, SVGs, Spreadsheets, and Videos

OK Cancel

Attachments (cont'd)

Zoom



Remove attachment

Add attachment or link

Download as original or as ZIP File

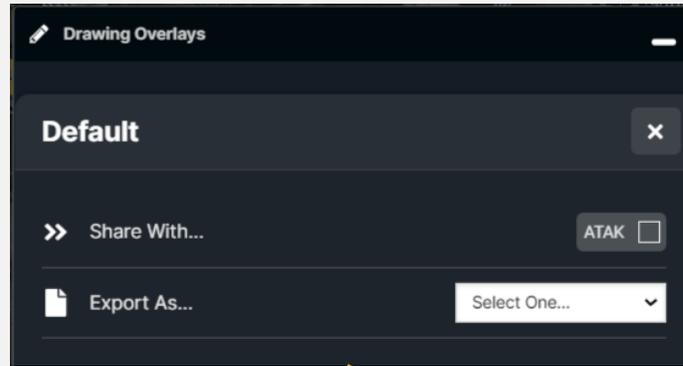
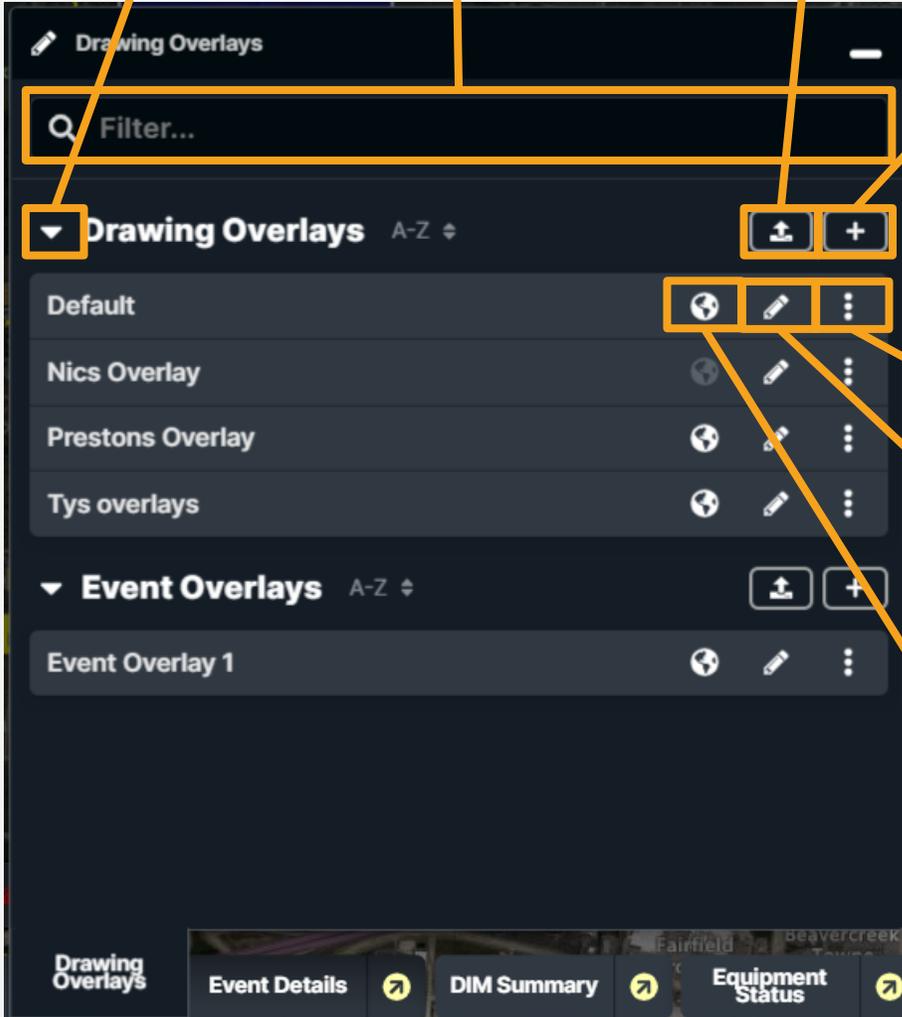
Drawing Overlays

Expand or Condense Overlays

Import Overlay

Filter Overlays

Add New Overlay



Edit Overlay

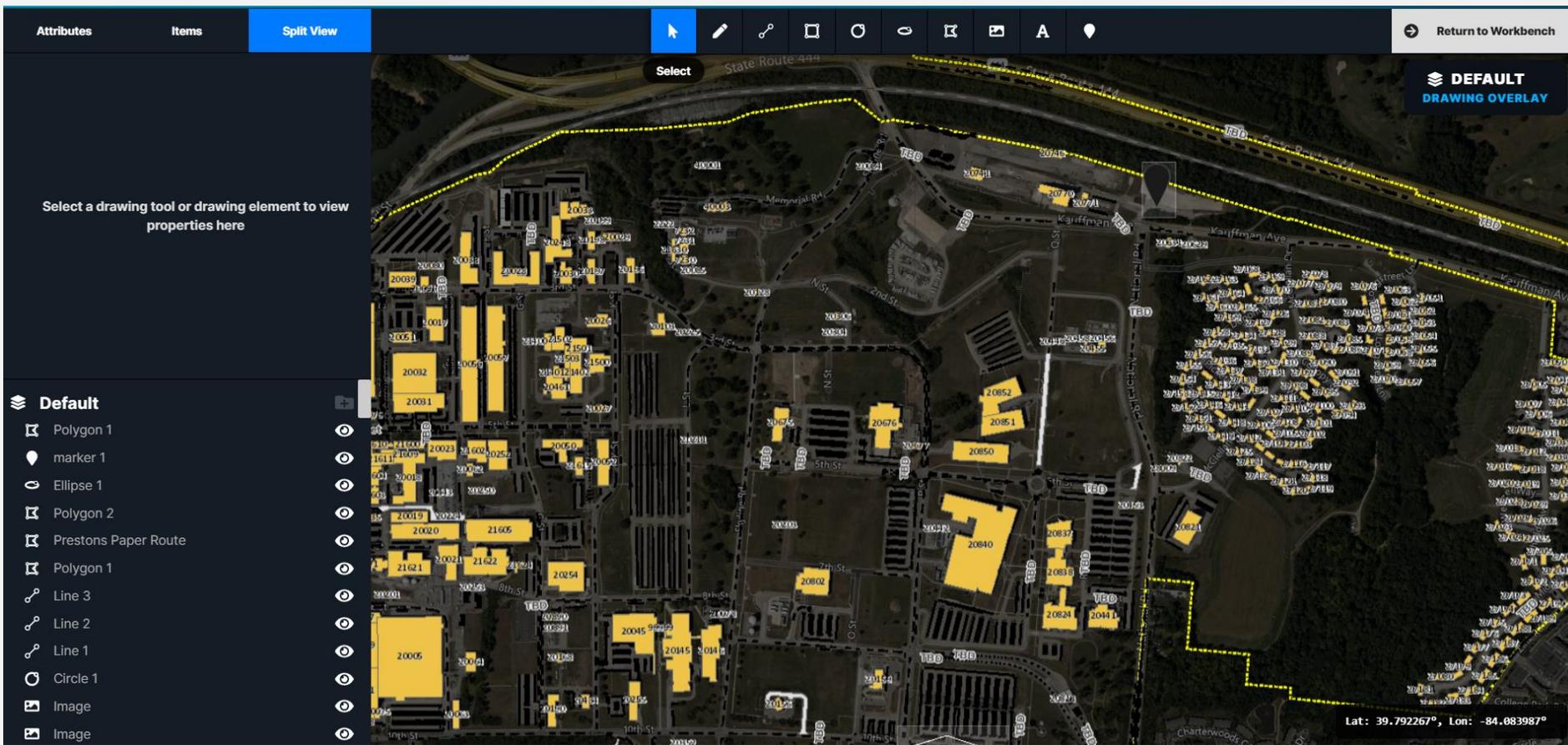
Edit Overlay

Locate

The Drawing Overlays Tool provides the ability to draw and manage overlay layers on top of the map for this event. Data in the list may be reloaded, selected layers may be edited, deleted, or exported, and new layers may be added or imported.

Drawing Overlays - Edit

The Add option in the Drawing Overlays Tool provides the ability to create a layer with line drawing, polygon, rectangle, circle, place markers, and text. When the “Add” option is selected, name the layer and add any desired items to the map. After the desired changes are made to the layer, selecting “Done modifying drawing layer” completes the layer and adds it to the map.



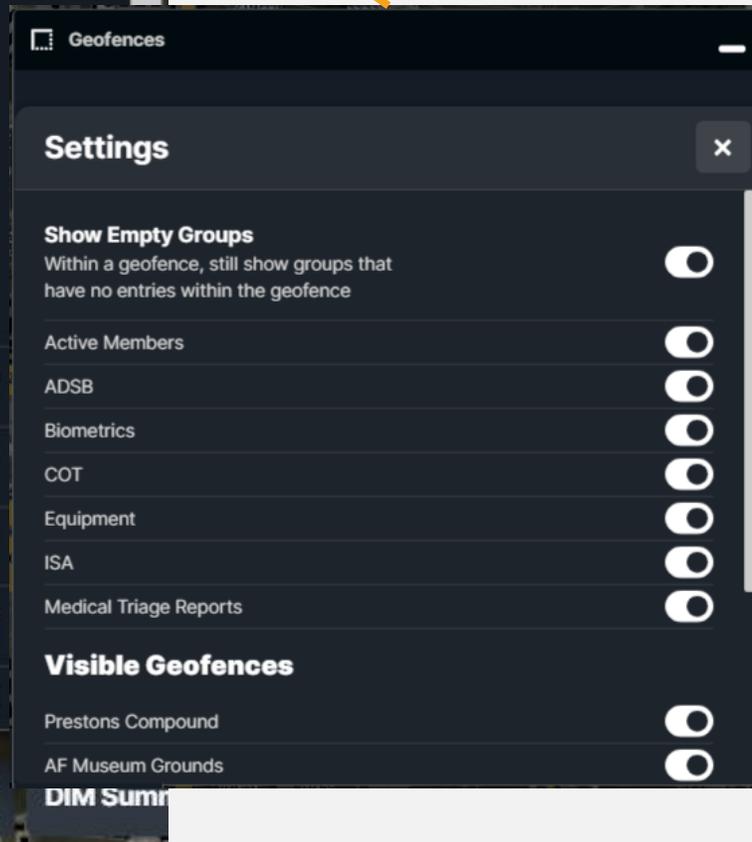
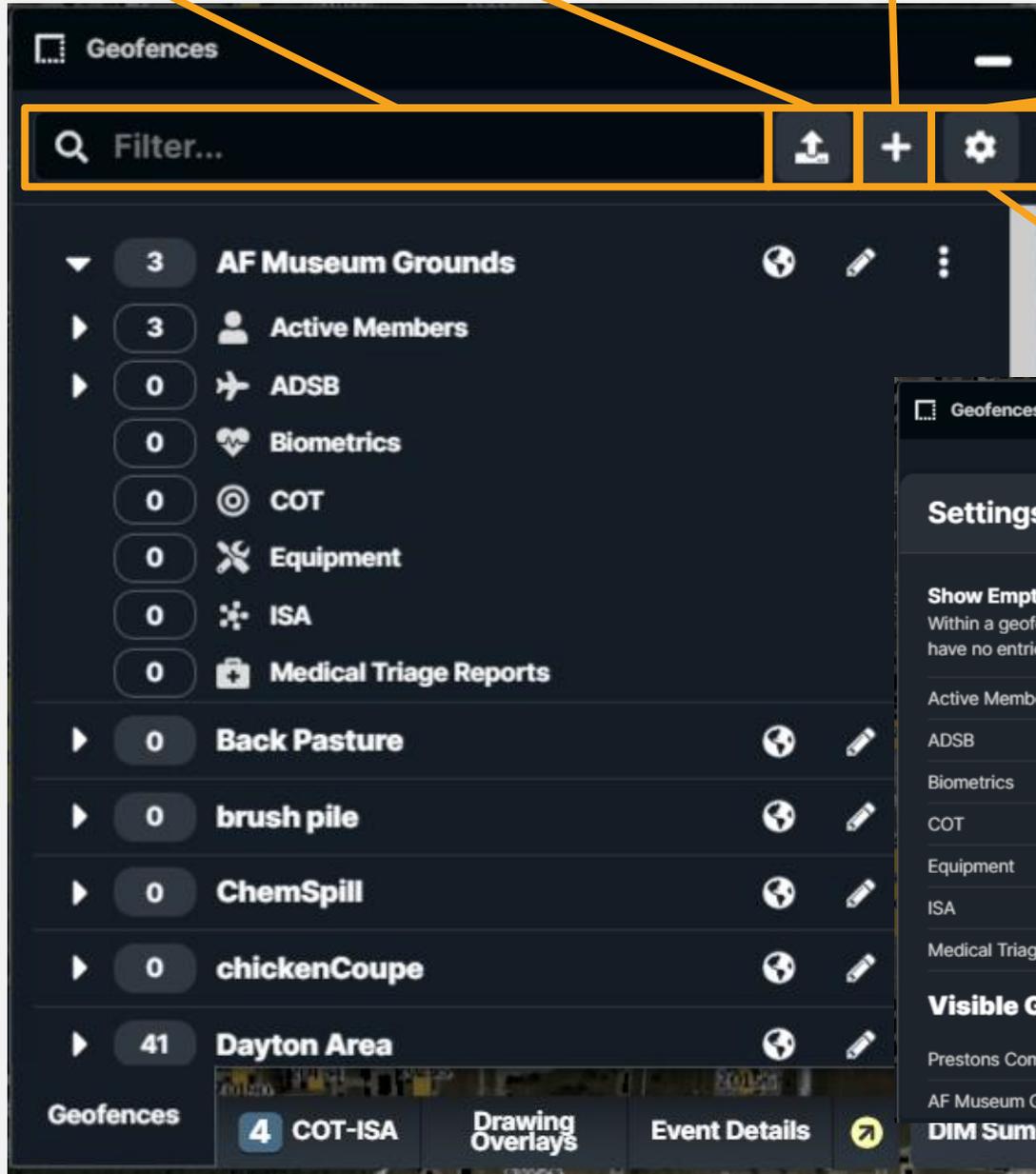
Geofences

Filter Overlays

Import Geofence

Add New Geofence

Geofence Settings



Geofences provide the ability to create and manage Geofences. To add a new Geofence, click the “Add” button and provide a name for the Geofence. Geofences allow users to track items referenced by area. Items entering or exiting an area will provide alerts. Items may also be filtered by Geofence areas in most tools.

Geofences (cont'd)

Attributes Items Split View

Select a drawing tool or drawing element to view properties here

AF Museum Grounds
Polygon 1

AF MUSEUM GROUNDS
GEOFENCE OVERLAY

Return to Workbench

Select

State Route

Memorial Rd

2nd St

5th St

7th St

8th St

10th St

Charterwood C

Lat: 39.796636°, Lon: -84.071453°

Create a polygon, rectangle, or circular Geofence by using the shape tools at the top of the map. Return to the map by selecting "Return to Workbench".

HAZMAT ERG



ID No	Guide	Name of Material
	153	Toxins
	114	Explosives, division 1.4 or 1.6
	112	Explosives, division 1.1, 1.2, 1.3 or 1.5
	112	Blasting agent, n.o.s.
	158	Biological agents
	112	Ammonium nitrate-fuel oil mixtures
1001	116	Acetylene, dissolved
1002	122	Air, compressed
1003	122	Air, refrigerated liquid (cryogenic li...
1005	125	Anhydrous ammonia
1006	121	Argon, compressed
1008	125	Boron trifluoride, compressed
1009	126	Refrigerant gas R-13B1
1010	116P	Hydrocarbon and butadienes mixt...
1011	115	Butane
1012	115	Butylene
1013	120	Carbon dioxide, compressed

The HAZMAT ERG Tool Provides access to the HAZMAT emergency response guide and toolset. Users may select a material for instructions and to identify an incident on the map.

11 HAZMAT ERG

Materials Guide Isolate/Protect Map

>> 1005 125 Anhydrous ammonia

GUIDE 125
GASES - CORROSIVE
POTENTIAL HAZARDS

HEALTH

- TOXIC; may be fatal if inhaled, ingested or absorbed through skin.
- Vapors are extremely irritating and corrosive.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control may cause pollution.

FIRE OR EXPLOSION

- Some may burn but none ignite readily.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Some of these materials may react violently with water.
- Cylinders exposed to fire may vent and release toxic and/or corrosive gas through pressure relief devices.
- Containers may explode when heated.
- Ruptured cylinders may rocket.
- For UN1005: Anhydrous ammonia, at high concentrations in confined spaces, presents a flammability risk if a source of ignition is introduced

PUBLIC SAFETY

- CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
- As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind, uphill and/or upstream.
- Many gases are heavier than air and will spread along

11 HAZMAT ERG

Materials Guide Isolate/Protect Map

>> 1005 125 Anhydrous ammonia

IF THERE IS A FIRE, or IF A FIRE IS INVOLVED, go directly to the ERG Guide tab and use the evacuation information shown under PUBLIC SAFETY.

Initial Isolation and Protective Action Distances

Small Spills
 (From a small package or small leak from a large package)

First ISOLATE in all Directions	Then PROTECT persons Downwind during	
	Day	Night
30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)

Container Type: All

Large Spills

Container Type	
Rail tank car	
First ISOLATE in all Directions.	300M (1000ft)

Then PROTECT downwind

DAY		
Low (< 6 mph)	Moderate (6 - 12 mph)	High (> 12 mph)
1.7KM (1.1mi)	1.3KM (0.8mi)	1.0KM (0.6mi)

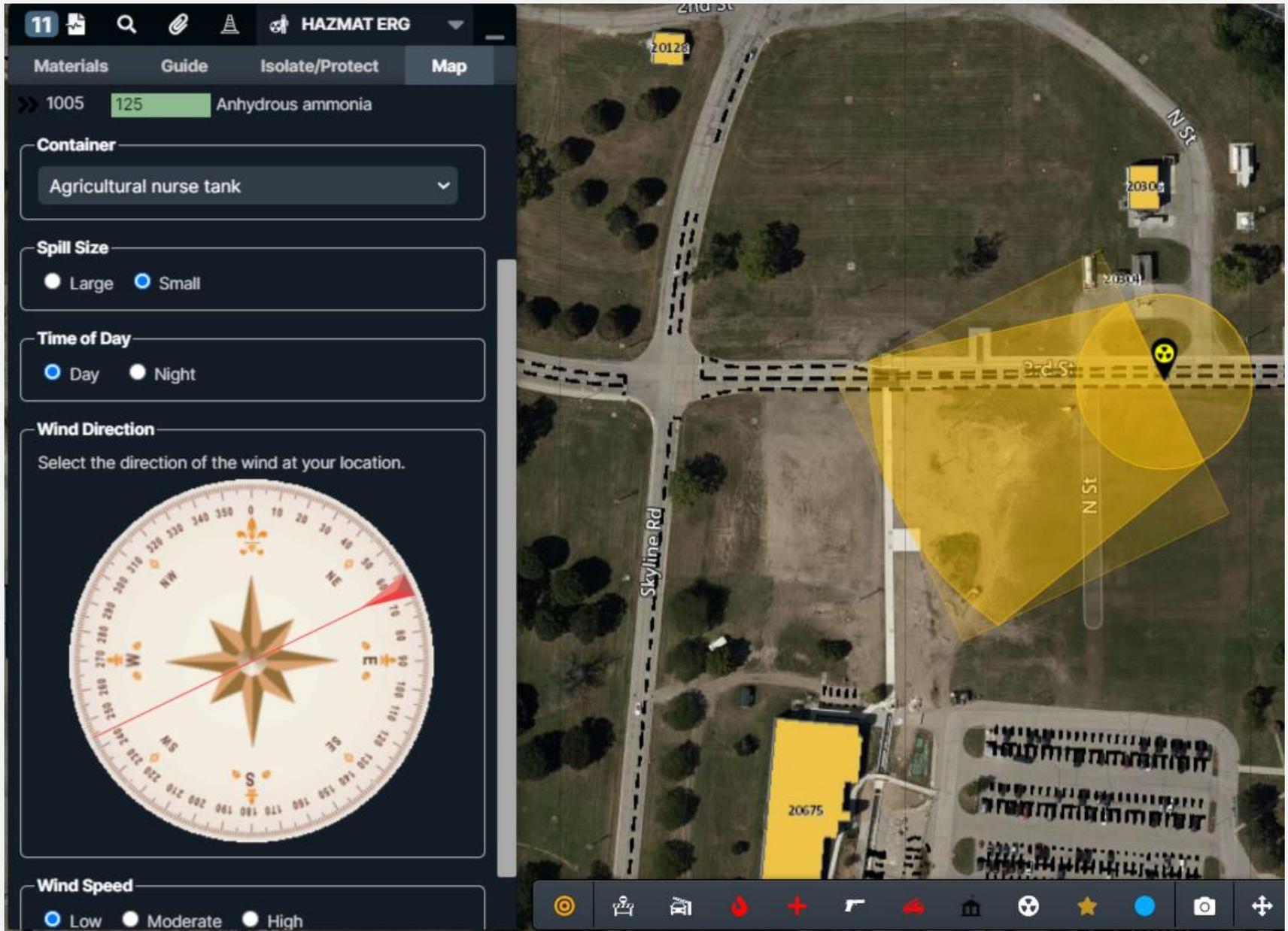
NIGHT		
Low (< 6 mph)	Moderate (6 - 12 mph)	High (> 12 mph)
4.3KM (2.7mi)	2.3KM (1.4mi)	1.3KM (0.8mi)

Large Spills

Container Type	
Highway tank truck or trailer	

If a selected material contains information in the Guide or Isolate/Protect section, those tabs may be selected to view the information.

HAZMAT ERG – Map

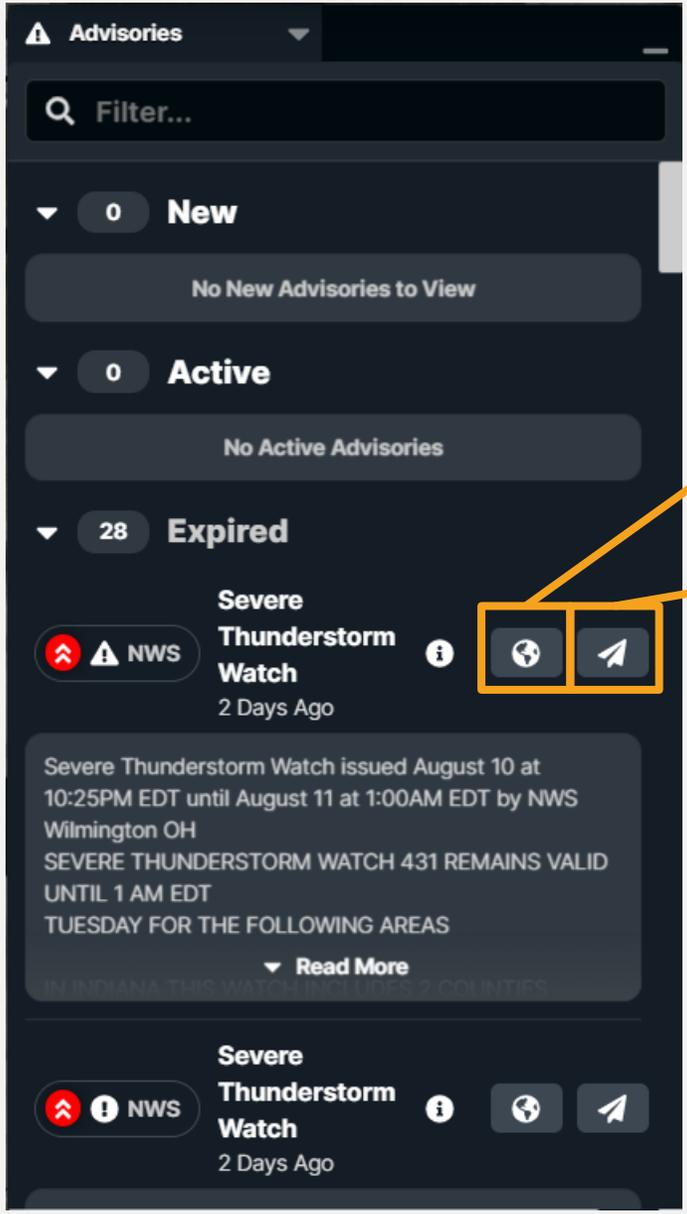


HAZMAT information may be easily added to the map by selecting the Map tab, entering a location, spill size, time of day, and wind direction. The current wind direction may be viewed in the Weather Summary.

ADVISORIES

Advisories

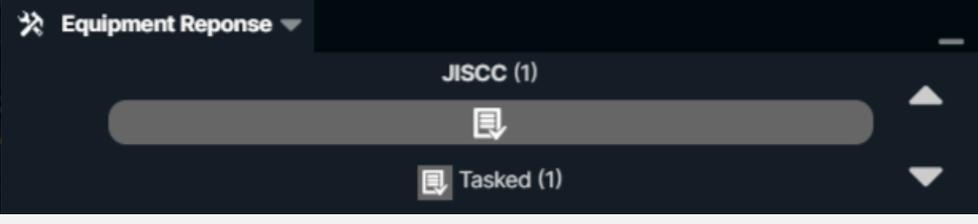
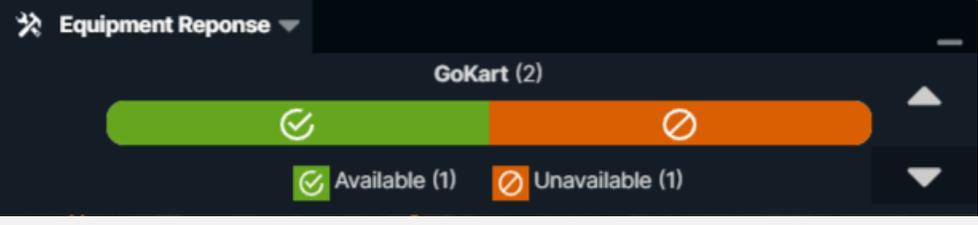
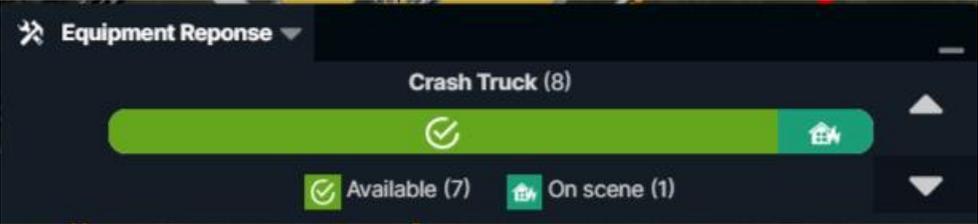
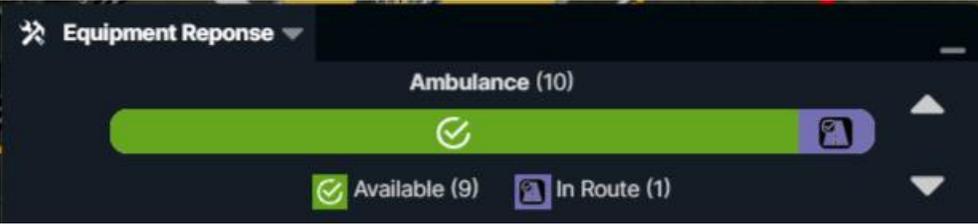
Advisors provide users with important notifications such as weather alerts. Details about the notifications may be viewed in more detail, located on the map, or broadcast in a message to other event users.



Locate

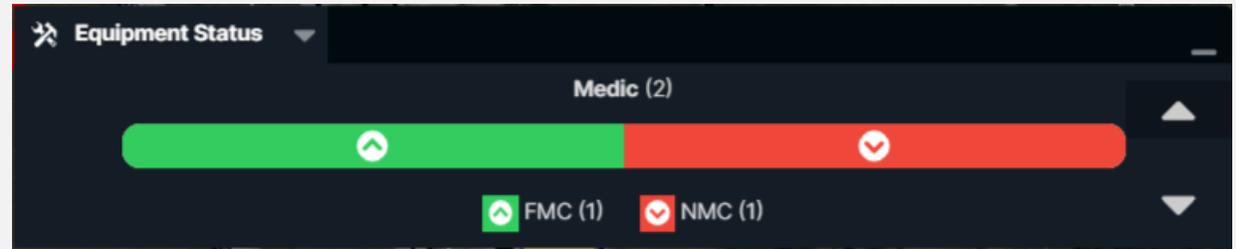
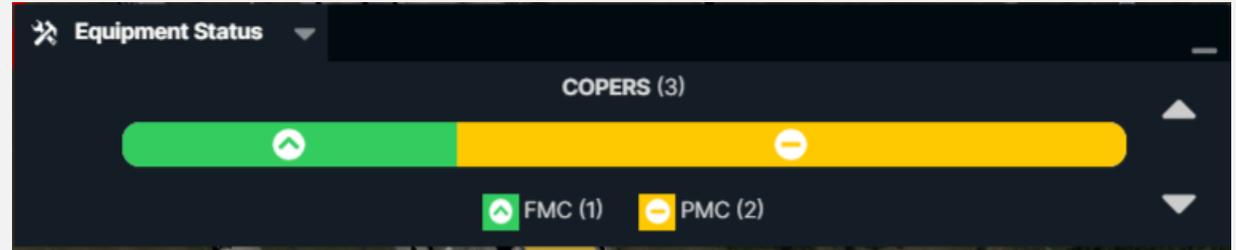
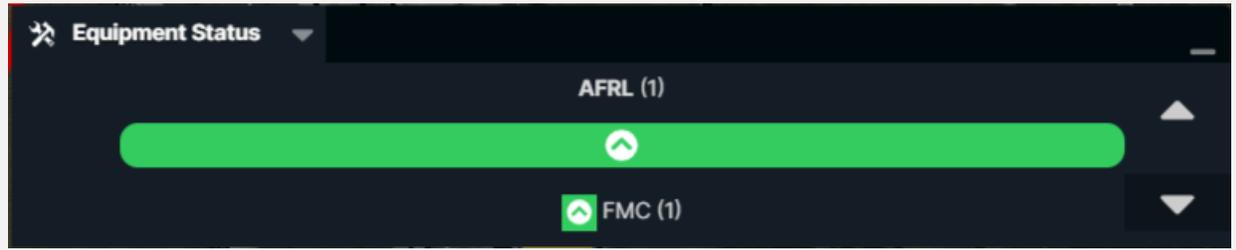
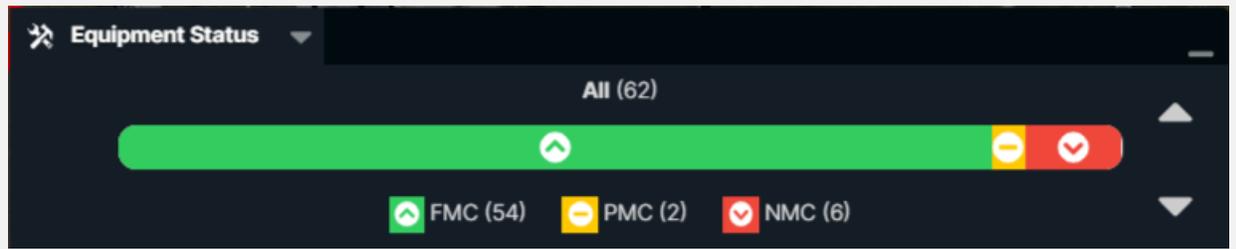
Broadcast Advisory

Equipment Response Roll-Up



Equipment Response Code information may also be viewed in the Equipment Response Code Rollup located at the bottom of the COP. This information is updated when information is updated in the Equipment Tab.

Equipment Status Roll-Up



Equipment Status Code information may also be viewed in the Equipment Status Code Rollup located at the bottom of the COP. This information is updated when information is updated in the Equipment Tab.

Summary Count*

A summary tool can be setup (See Tool Templates in the Admin Training) to provide status counts for any topic desired. In the example below the topic is “Summary Count”, The items are ‘Cases’, ‘People’, and ‘Beds’. The attributes for ‘Cases’ are ‘Ohio’, ‘Installation’, and ‘Hospital’. The color of the count is red/yellow/green and determined by the thresholds setup in the tool configuration.

Add or Subtract from Count

View Status Changes

The Summary Count Tool allows users to track case counts by adding or subtracting the number of cases, statuses, hospital beds, and other pertinent information. Status changes may be viewed using the Status Changes button.

Category	Item	Count	-	+	↻
Cases	Ohio	148	-	+	↻
	Installation	13	-	+	↻
	Hospital	13	-	+	↻
People Status	Isolation	17	-	+	↻
	Quarantined	6	-	+	↻
	Pending	2	-	+	↻
Hospital Beds (WPAFB)	Available - ICU	5	-	+	↻
	In Use - ICU	0	-	+	↻

Count	User	Timestamp
148	ty.hayden	8/11/2020 11:12:46 AM
147	ty.hayden	8/11/2020 10:34:34 AM
147	ty.hayden	8/11/2020 10:29:52 AM
146	ty.hayden	8/11/2020 10:29:52 AM
148	ty.hayden	8/11/2020 10:29:49 AM
147	ty.hayden	8/11/2020 10:29:48 AM
146	ty.hayden	8/11/2020 10:17:57 AM
145	preston.hoeve	8/11/2020 10:11:41 AM

*This item is based on a tool template. The actual tool name may be different.

Weather Summary

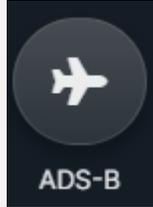


The screenshot shows a weather summary for Riverside. At the top, it says 'Weather' with a gear icon, followed by 'Riverside (Open Weather Map) at 2:35p with US units'. Below this are six columns: Conditions (85°F, Scattered Clouds), Pressure (30.06 inHg), Humidity (45%), Wind (4.7 MPH from E, with a blue arrow icon), Forecast (5p 84°F, 8p 77°F, 11p 72°F), and Lightning (None Detected in Area).

Conditions	Pressure	Humidity	Wind	Forecast	Lightning
85°F Scattered Clouds	30.06 inHg	45%	4.7 MPH from E	5p 84°F 8p 77°F 11p 72°F	None Detected in Area

The Weather Summary displays the current weather situation and forecast for the event. The summary may be viewed at the bottom of the COP by selecting Weather from the drop-down menu. Users have the ability to click a link to select locations from the drop-down menu (if provided by an Administrative User) as well as select units.

Automatic Dependent Surveillance-Broadcast (ADS-B)



The screenshot shows the ADS-B interface with a list of aircraft. At the top, there is a search bar labeled 'Filter...' and a settings gear icon. Below the search bar, the text 'ADS-B Callsign' is visible. The aircraft list includes:

Icon	Callsign	Time	Icons
✈️	72193	Just now	🌐 🏷️ ⭐ ⋮
✈️	AAL2206	2 mins ago	🌐 🏷️ ⭐ ⋮
✈️	CKS656	Just now	🌐 🏷️ ⭐ ⋮
✈️	DAL325	1 min ago	🌐 🏷️ ⭐ ⋮
✈️	EJA370	Just now	🌐 🏷️ ⭐ ⋮
✈️	FDX247	Just now	🌐 🏷️ ⭐ ⋮
✈️	FDX3627	Just now	🌐 🏷️ ⭐ ⋮
✈️	GJS4466	Just now	🌐 🏷️ ⭐ ⋮

At the bottom of the list, there is a filter bar with the following options: < 2k ft, < 6k ft, < 10k ft, < 25k ft, < 35k ft, > 35k ft.

The tool displays current air traffic on the COP Map and in the ADS-B list. Traffic is reported respective to the event location.

- 🌐 Locate ADS-B
- 📄 Show details...
- ✏️ Edit...
- 👁️ Hide item
- 🏷️ Always show label
- 📍 Show location history
- ⭐ Follow item

Aircraft color is indicator of altitude

ADS-B Functions

The screenshot shows the COPERS ADS-B interface. At the top, there's a search bar and a 'Test Event 6 ACTIVE' indicator. A 'Tracking Paused' button is in the top right. The main area is split into a left sidebar and a right map. The sidebar contains a 'Filter List' with a search bar and a list of aircraft. The 'Amazon 01' entry is highlighted. The map shows a satellite view with a blue aircraft icon circled. An information panel for 'Amazon 01' is open, showing details like source, status, and altitude.

Filter List

42 ADS-B

Filter...

ADS-B Callsign

Callsign	Status	Icons
AAL395	Just now	🌐 🛫 ⭐
AAY2366	Just now	🌐 🛫 ⭐
Amazon 01	Just now	🌐 🛫 ⭐ 📍
DAL578	Just now	🌐 🛫 ⭐
EDV4820	Just now	🌐 🛫 ⭐
FDX3627	Just now	🌐 🛫 ⭐
GJS4466	Just now	🌐 🛫 ⭐
GT12007	Just now	🌐 🛫 ⭐
KAL9033	Just now	🌐 🛫 ⭐

Amazon 01
ADS-B
Just now
39.5056°, -84.6593°
United States Active
Source: FLIGHTAWARE-WPAFB
State Time: Less than a min
Status: R
Squawk: 2421
Altitude: 36,200 ft (HAE)

Click Aircraft on the map

Fly-To Location

View Aircraft Label

Track Item

Custom Name and ICON

More Info

< 2k ft < 6k ft < 10k ft < 25k ft < 35k ft > 35k ft

39.384202°
-84.287109°

ADS-B Functions

The screenshot displays the COPERS ADS-B interface. On the left, a list of aircraft is shown with columns for callsign, time, and various icons. The aircraft N98561 is highlighted, and a context menu is open over it. The menu includes options like 'Locate ADS-B', 'Show details...', 'Edit...', 'Hide item', 'Always show label', 'Show location history', and 'Item of Interest'. The 'Edit...' option is highlighted, and an 'Override Properties' dialog is open, showing fields for 'Custom Name' and 'Custom Icon'. The background is a satellite map of the Dayton, Ohio area.

ADS-B List:

Callsign	Time	Icons
N98561	Just now	[Globe, Blue location pin, Yellow star, Three dots]
N9878E	Just now	[Globe, Red location pin, White star, Three dots]
PKW783	1 min ago	[Globe, Red location pin, White star, Three dots]
RPA5714	Just now	[Globe, Red location pin, White star, Three dots]
SCX3017	Just now	[Globe, Red location pin, White star, Three dots]
SWA1370	A few secs ago	[Globe, Red location pin, White star, Three dots]
SWA1613	2 mins ago	[Globe, Red location pin, White star, Three dots]
SWA1962	2 mins ago	[Globe, Red location pin, White star, Three dots]
SWA2795	Just now	[Globe, Red location pin, White star, Three dots]

Context Menu for N98561:

- Locate ADS-B
- Show details...
- Edit...**
- Hide item
- Always show label
- Show location history
- Item of Interest

Override Properties Dialog:

- Custom Name: No Custom Name Set [Checkmark] [Close]
- Custom Icon: No Custom Icon Set [Choose Icon] [Close]

ADS-B Functions

The screenshot shows the COPERS interface with a list of ADS-B aircraft on the left and a detailed view for N98561 in the center. The aircraft list includes:

Callsign	Status	Actions
N9114D	Just now	[Icons]
N9258C	Just now	[Icons]
N933JG	Just now	[Icons]
N950JA	Just now	[Icons]
N98561	Just now	[Icons]
N9878E	Just now	[Icons]
PKW783	2 mins ago	[Icons]
RPA5714	Just now	[Icons]
SOX3017	Just now	[Icons]

The detailed view for N98561 shows:

- Source: FLIGHTAWARE-WPAFB
- Stale Time: Less than a min
- Status: R
- Squawk: N/A
- Altitude: 2,225 ft (HAE)

Settings for N98561

- Hide item:
- Always show label:
- Show location history:
- Follow item:

OK

Cursor On Target (COT)

Tool provides access to a list of all the items being reported by the TAK/COT server.

The functionality of COT components operates like the ADS-B functions.

The screenshot displays the COPERS interface with an aerial map background. On the left is a list of items, with 'AK05-4087' selected. A details panel for 'AK05-4087' is open, showing its status as 'Active' and 'Military'. An 'Override Properties' dialog is also open, allowing for customizing the item's name and icon. A red circle highlights a specific aircraft on the map.

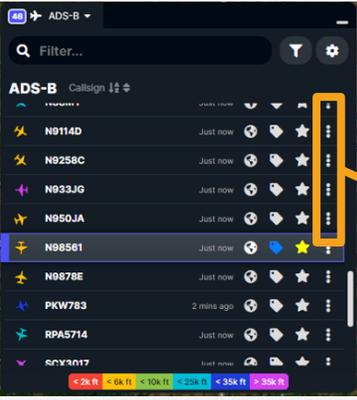
Item Name	Time	Status
AK05-4087	15 days ago	Active
Alpha November	Just now	Unknown
Bravo Oscar	Just now	Unknown
Charlie Papa	Just now	Unknown
JL	A few secs ago	Unknown
John.leininger	Just now	Unknown
nbuhrman-test11	Just now	Unknown
nbuhrman-test23	5 mins ago	Unknown
Preston	A few secs ago	Unknown
Swarm Controller	Just now	Unknown
ty	Just now	Unknown
ty.hayden	Just now	Unknown

Dimension	air/mil/fixed/fighter
Start Time	15 days ago
Stale Time	2 days
Altitude	32,808,397 ft (HAE)

Custom Name	No Custom Name Set	✓	✗
Custom Icon	No Custom Icon Set	Choose Icon	✗

COT- Show details

The 'Show details' option provides access to details about the underlying data, including any measurables and they raw message



- Locate ADS-B
- Show details...
- Edit...
- Hide item
- Always show label
- Show location history
- Item of Interest

CoT Details

AK05-4087

Details Hide

Callsign	AK05-4087
Entity Id	d0447f77-be11-410e-a73e-5801d35f7d38
Type	a-u-A-M-F-F
Start Time	15 days ago
Stale Time	2 days
Status	G
Active	<input checked="" type="checkbox"/>
How	gigo
Entity	military
Identity	unknown
Dimension	air/mil/fixe/fighter

DD 61.249142°, -149.798277°

Altitude 32,808,397 ft (HAE)

Measurables Hide

Raw Information Show

CoT Details

Raw Information Hide

Event

Detail	
flow-tags	T A K- Server-721b7314 15 days ago
Archive	
Color	
Argb	-65536
Contact	
Callsign	AK05-4087
Link	
Parent_callsign	DIONYSUS
Production_time	243 days ago
Relation	p-p
Type	a-f-G-U-C
Uid	ANDROID-354267099048750

PrecisionLocation

Altsrc	???
Geopointsrc	USER

Equipment

Search bar

Add new equipment

Display Options

View only active or all

Sort by organization or type

Make Items invisible

The screenshot shows a list of equipment items under the heading '88SFS_OH'. Each item has a status bar with icons for location, assignment, and mission capability. The callouts point to the search bar, the '+', and gear icons, and the filter dropdowns for 'Active', 'Organization', and 'Filters'.

Any type of equipment, asset, or managed unit can be represented in the COPERS tool. While integrated sensors are not yet common, the user can manage all the aspects of status and location through the UI.

Locate

Location History

Availability

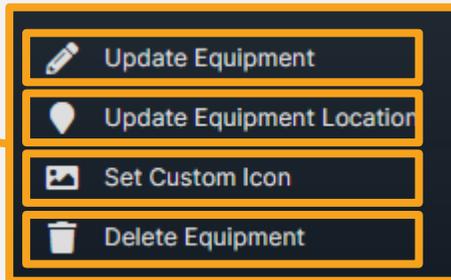
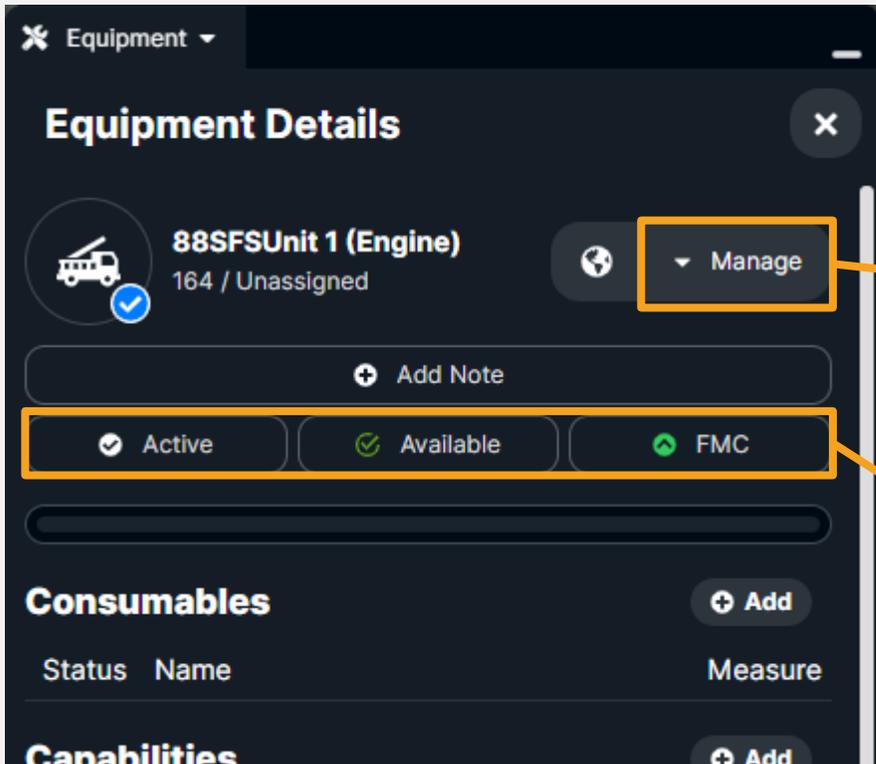
Mission Capability

Click to Change status

The detailed view shows a single equipment item '88SFSUnit 1' with four icons: a globe (Locate), a person (Location History), a checkmark (Availability), and an upward arrow (Mission Capability). A dashed box highlights the checkmark icon with the text 'Click to Change status'. Below are two panels showing status options: 'Available', 'In Route', 'On scene', 'Out of Service' and 'Fully Mission Capable', 'Partially Mission Capable', 'Not Mission Capable'.

Equipment — Manage

Click on the row for a piece of equipment to change how and where equipment is represented on the map.



Change name, organization, type

Manually set the geographic location

Set a custom icon

Destructive delete. No undo

Update status by clicking button

Equipment - Add New Equipment



New equipment may be added by using the “Add” button and filling out all pertinent information in the form or by cloning previously used equipment.

Clone an existing piece of equipment

Select from list or type in your own. Click ‘Create’ for new items

- Create "UGV"
- Ambulance
- Crash Truck
- Default
- Default Fire
- Engine
- JISCC

Equipment – Consumables and Capabilities

Each Asset can be given a list of status able consumables and capabilities. Positions can also be defined and managed for manned equipment. For Example: Battery as a consumable: Communication link as a capability.

Equipment Details

88SFSUnit 1 (Engine)
164 / Unassigned

Active Available FMC

Consumables + Add

Status	Name	Measure
--------	------	---------

Capabilities + Add

Status	Name
--------	------

Positions + Add

Position 1	Briese, Frank
Position 2	Adams, Brendan
Position 3	Garcia, Ray

Name

Measurement Value

Unit of Measure

Status Fully Mission Capable

+ Add Consumable

Name

Status Fully Mission Capable

+ Add Capability

Title

Personnel in Position Update

+ Add Position

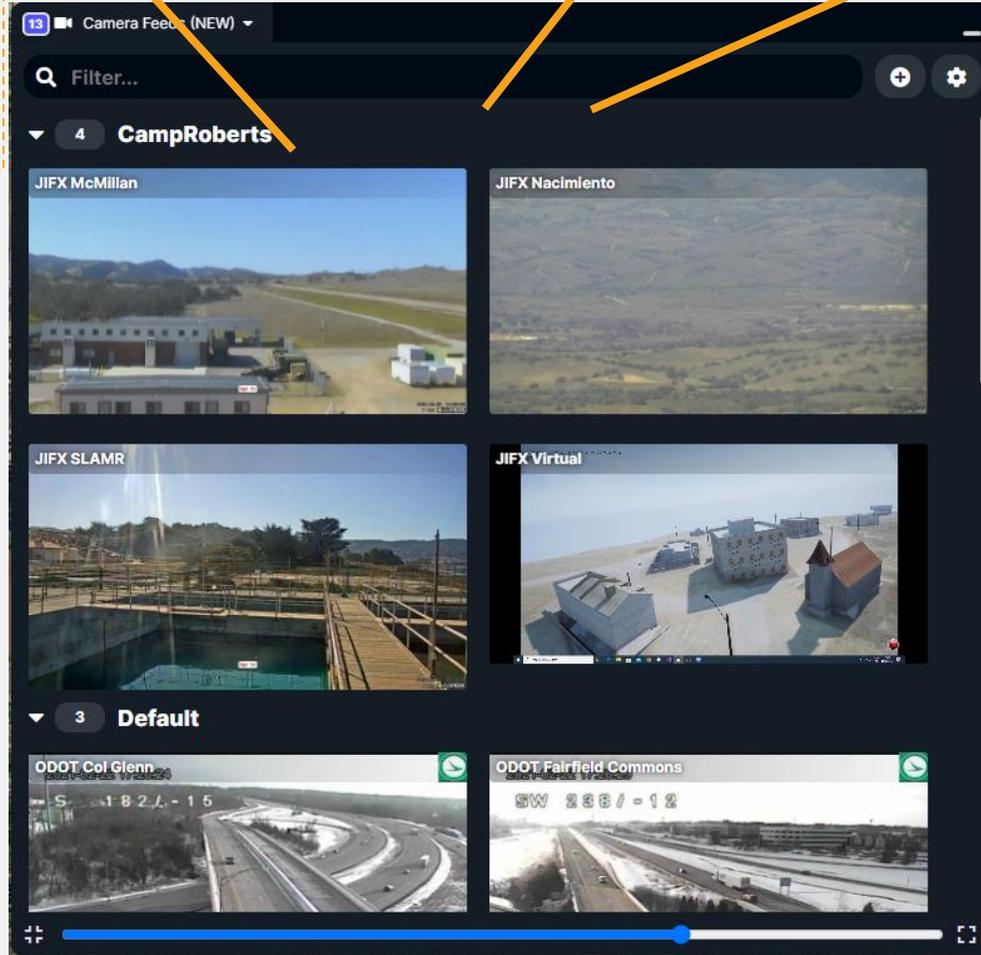
Stream Video Feeds (new)

Double-click video thumbnail to open in new window

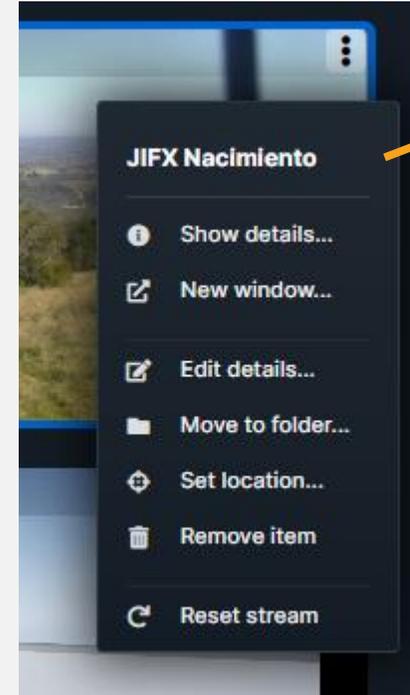
Display/hide video names

Locate video feed on map

Open selected video

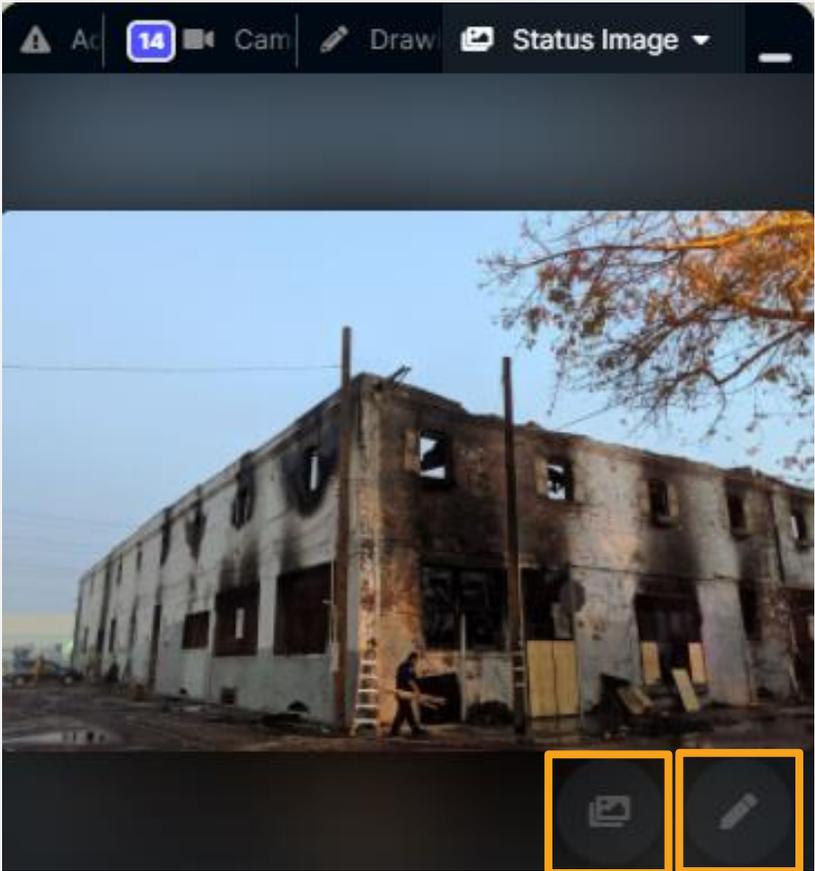


Right-Click or the 3dot button



*This item is based on a tool template. The actual tool name may be different.

Image Deck*

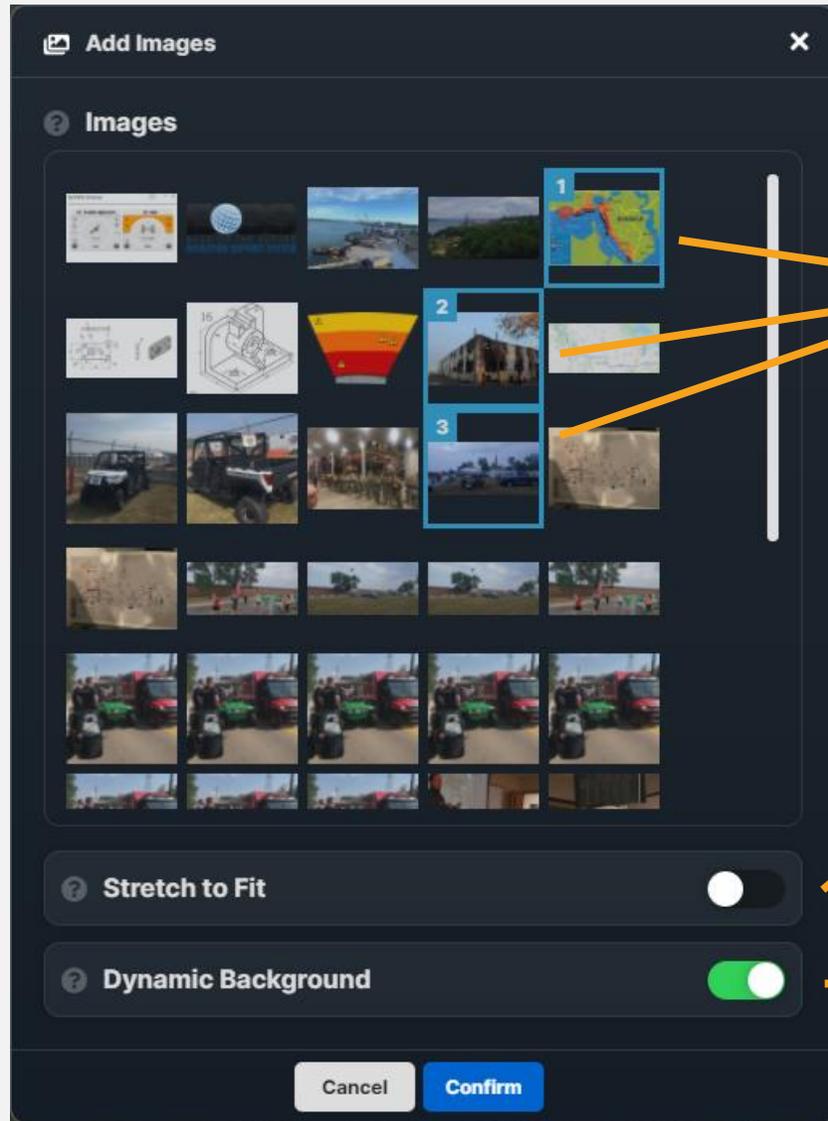


Change image
displayed when more
that one is selected

Edit image(s)
selection

*This item is based on a tool template.
The actual tool name may be different.

Image Viewer – Selection



Edit image(s)
selection
Number represents
order images are
presented

Image will fill to size
of tool in workspace

Sets background
color hue when
images are not
stretched to fit

The following topics are covered in the
COPERS (Event) Administrator document:

- Event Settings
- Reports
- Enterprise View