



# Field Data Collection

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Introduction to using and configuring the common mobile apps used for data collection

# Objectives



## **Cover the three main apps used for GIS data collection in the field**

What makes them unique

- Use Cases
- Getting Started
- Known issues



## **Get some hands-on experience using the apps**

Using the same projects USAR teams use in disaster response

# As we wait to get started, download these apps

## **QuickCapture**

- Training a3c71 NAPSG Sandbox Wide Area Search



## **Field Maps**

- Download Field Maps here



# The Three Main Apps

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QuickCapture



Field Maps



Survey123





# QuickCapture



- Perfect for fast, easy data collection
- Data inputs configured on the backend
- Push button data collection – points and lines
- Can be configured with user input dropdowns, choice list, or text
- Works on and offline with ability to download MMPKs for offline map
- **NEW** Ability to turn off layers in the map
- “So easy a firefighter can do it!”



# QuickCapture Demo

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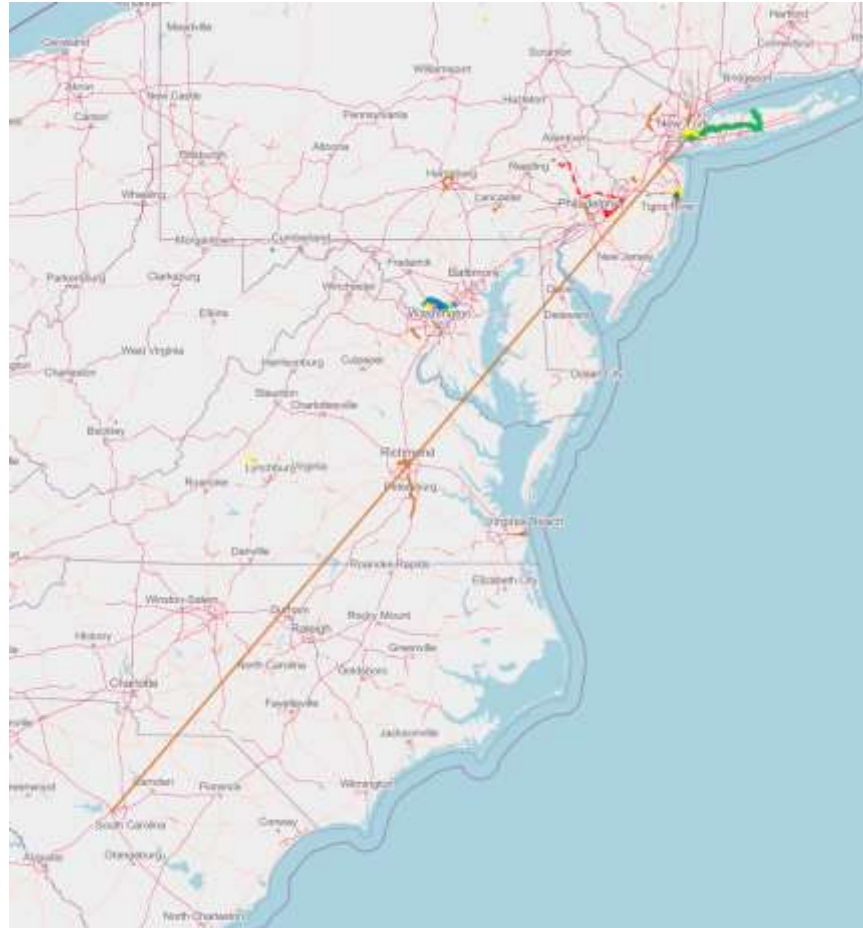
- Basic functionality
  - What does each button do?
- Where to go to start configuring a project
- Saving, updating, and advanced





# QuickCapture – Configuration and limitations

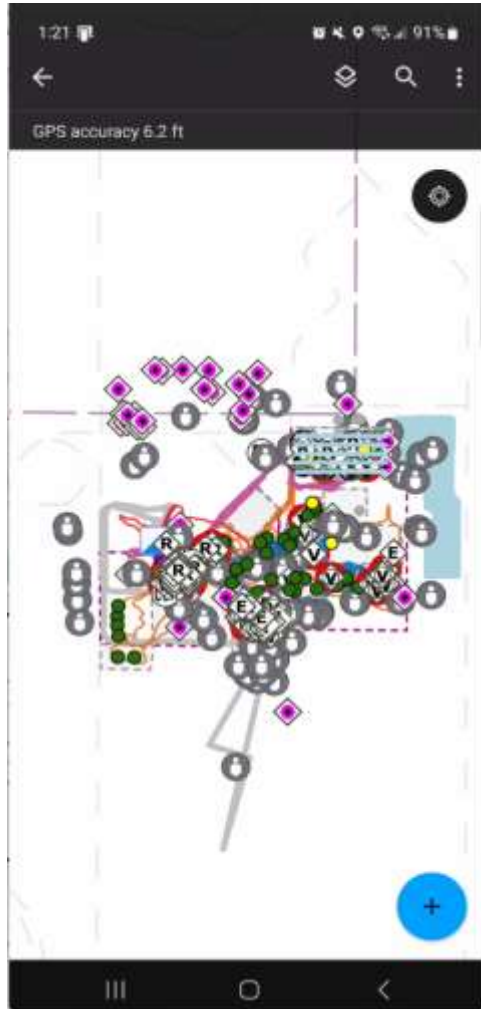
- Configure each button
- JSON editing for advanced functions
- Webhooks
- Data is usually good about being sent to AGOL
- Trackline spiking





# Field Maps

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- Great for feature layer editing in the field
- Uses existing web maps
- Smart forms can make data collection and editing easy
- Ability to see pop-ups, filter, and turn on/off layers
- Works on and offline (create offline areas with all the layers you want)





# Field Maps - Use

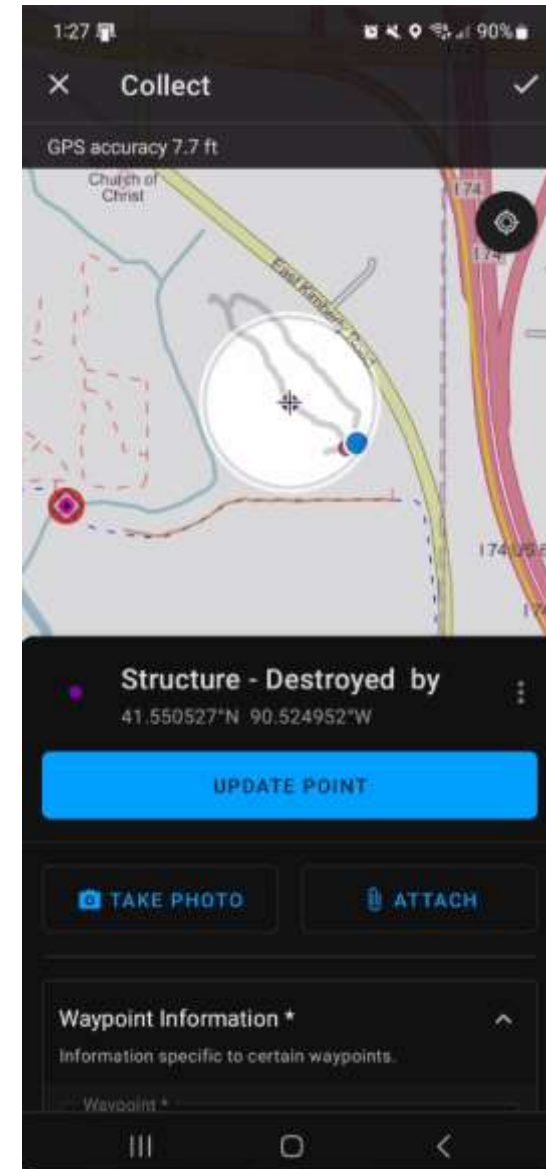
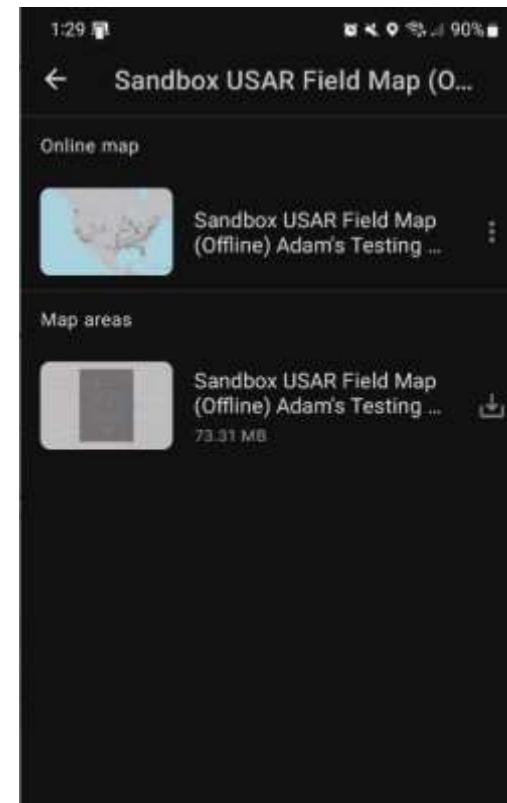
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- Basic functionality
  - What does each button do?
- Where to go to start configuring a project
- Saving, updating, and advanced



# Field Maps – Configuration and limitations

- Map follows same configuration as Web Map
- Smart forms let you input and edit data
- Offline maps for low bandwidth environments
- Steeper learning curve for field users
- Data collection is slower





# Survey123

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\*Training\* v8 WAS Sandbox


Survey instructions and tips. Click arrow to left to open.

Event Details: ★ *Open to complete event details and "Set as favorite answers" (using instructions above) to pre-populate future forms. Be sure to reset favorite answers at the beginning of each search operation.*

Location \*

Select the map to improve location accuracy or search an address / place / USNG. For damage surveys - be sure to "drag" the pin to the building footprint where available.

15S UD 6283 2688



Degree Decimal Minutes

When relaying coordinates verbally, the words, "degrees," "decimal," and "minutes" must be spoken along with the cardinal direction.

39°04.821'N 94°35.146'W

Waypoint \*

✓

- Form/ survey centric platform
- Works on web and on mobile
- Great for collecting data from crowdsource
- Survey123 Connect gives flexibility in survey design
- Works on and offline
- Can edit other existing features



# Survey123 – Configuration and limitations

ID	Type	Name	Text	IsRequired	IsRequiredMessage	Required	Default	Validation	Constraint	ConstraintMessage
103	Text	id_prob_collaps	I.D. most PROBABLE Collapse Mode	Hidden				{selected}\$value, amount_checked({id_prob_collaps}), "checked", ""		
104	Text	id_falling_hazards	I.D. all Exterior Falls and Hazards	Hidden				{selected}\$value, amount_checked({id_falling_hazards}), "checked", ""		
105	Text	id_egress_egress	I.D. All Egress and Egress Locations	Hidden				{selected}\$value, amount_checked({id_egress_egress}), "checked", ""		
106	Text	id_struct_multiple_entries	id_struct_multiple_entries	Hidden				{selected}\$value, amount_checked({id_struct_multiple_entries}), "checked", ""		
107	Text	team_outside	Make sure that at least one other Team Member remains outside and you remain	Hidden				{selected}\$enter_struct_checked({team_outside}), "checked", ""		
108	Text	safety_ill	Notify If you are entering structure - which side	Hidden				{selected}\$enter_struct_checked({safety_ill}), "checked", ""		
109	Text	visible_trap	Leave Early Visible Trap as you explore interior	Hidden				{selected}\$enter_struct_checked({visible_trap}), "checked", ""		
110	Text	closed_door_trap	Check each Closed Door for heat (HOT) to OPENERS	Hidden				{selected}\$enter_struct_checked({closed_door_trap}), "checked", ""		
111	Text	inspect_ground_flr	Inspect Ground Floor Level Before moving upwards	Hidden				{selected}\$enter_struct_checked({inspect_ground_flr}), "checked", ""		
112	Text	main_columns	Check Main Columns and Shear Walls-Cracks, Spalling	Hidden				{selected}\$enter_struct_checked({main_columns}), "checked", ""		
113	Text	main_beams	Check Main Beams to Column Connections	Hidden				{selected}\$enter_struct_checked({main_beams}), "checked", ""		
114	Text	stairwells	Check stair wells for Damage and Access	Hidden				{selected}\$enter_struct_checked({stairwells}), "checked", ""		
115	Text	fx_system	Check Condition of Floor System	Hidden				{selected}\$enter_struct_checked({fx_system}), "checked", ""		
116	Text	int_collapsing_flo	I.D. All Interior Collapsing Hazards	Hidden				{selected}\$enter_struct_checked({int_collapsing_flo}), "checked", ""		
117	Text	int_falling_haz	I.D. All Interior Falling Hazards	Hidden				{selected}\$enter_struct_checked({int_falling_haz}), "checked", ""		
118	Text	safe_haven	Locate safe Haven and Escape Route	Hidden				{selected}\$enter_struct_checked({safe_haven}), "checked", ""		
119	Text	report_outside	Report all Data to Outside Person before continuing	Hidden				{selected}\$enter_struct_checked({report_outside}), "checked", ""		
120	Text	radio_contact	Proceed Up/Down Only if Can Maintain Radio Contact	Hidden				{selected}\$enter_struct_checked({radio_contact}), "checked", ""		
121	Text	upper_stories	Proceed to Upper Stories, Check each before Proceeding	Hidden				{selected}\$enter_struct_checked({upper_stories}), "checked", ""		
122	Text	basement_check	Proceed to Basement and Check Structure & Foundation	Hidden				{selected}\$enter_struct_checked({basement_check}), "checked", ""		
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- Web and desktop configuration options
- Can work with points, lines, polygons, or no geometry at all
- Web builder is very capable
- Connect learning curve
- Editing existing data is difficult
- Slowest of the three field apps

QuickCapture



Quick data  
collection

Field Maps



Advanced data  
creation and  
editing

Survey123



Complete data  
creation



Questions?



## QuickCapture

- Training a3c71 NAPSG Sandbox  
Wide Area Search



## Field Maps

- Download Field Maps here
  - Click Skip Sign in & rescan QR code



# Exercise!

- Taking a walk around the block
- Mark buildings with Structures Waypoints
- Mark Cars with targeted searches or Extra 21
- Start tracks!
- Mark other things as you desire!





Questions?



# Resources

A person wearing a blue helmet and a white t-shirt is kneeling in a debris field, surrounded by wooden planks and branches. A golden retriever is standing nearby. The scene appears to be a site of destruction or demolition.

QuickCapture Documentation

<https://www.esri.com/en-us/arcgis/products/arcgis-quickcapture/overview>

Field Maps Documentation

<https://www.esri.com/en-us/arcgis/products/arcgis-field-maps/overview>

Survey123 Documentation

<https://www.esri.com/en-us/arcgis/products/arcgis-survey123/overview>



# THANKS!

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[napsgfoundation.org](http://napsgfoundation.org)

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## Sessions after lunch:

Shaping and sizing Esri  
and Microsoft Tools –  
Room 506

Building the NAPSG  
Community –  
Room 1104

Research in Public  
Safety - Auditorium

