

Tornado Operation Aid - Exercise

September 14, 2016

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Exercise Goal

To facilitate a better understanding among and between operators and GIS/IT staff of decision points essential to promoting operational coordination, and the data, analysis, products, and technology requirements needed to support effective decision making.

Mutual Aid Technology Objectives

What *incident-specific trigger points* identify a need for mutual aid system integration and information sharing to support effective operational coordination?

- Identify and validate trigger points that indicate ***when*** mutual aid technologies should integrate and readily share information.
- Identify ***to what extent*** mutual aid systems need to integrate and share information
- Identify common operational ***information requirements*** specific to resource management, and associated mission critical attributes.
- Identify key ***operational workflows*** and existing mutual aid hierarchies need to be supported or enabled.

Geospatial Preparedness Objectives

What feature and/or functional *enhancements* to decision support tools are needed to address information requirements for decision making around operational coordination?

- Identify and validate ***common operational coordination decision points*** and information required to support decision making.
- Identify feature and functional enhancements for decision making capabilities that could be provided by the IT and GIS staff.
- Identify ***potential shortfalls*** in how location-enabled decision support tools are provided and used for emergency or disaster operations.
- Identify ***technical workflows*** and information management integration requirements between mutual aid technologies, GIS capabilities, and other resource management systems.

Assumptions

- This is ***YOUR*** exercise
- We are **not** evaluating your individual skills or knowledge
- We are observing and capturing information
- There is no right or wrong answer or solution
- There are no right or wrong map products

Helpful Hints

- Use the **tools** you have learned about at this Summit
 - HIFLD Data and GII Services
 - Standardized symbology
 - Standard templates and applications
 - US National Grid
- **Injects** will be coming to you via your Facilitator/Controller during the next 2 hours
- This is **real-time 2 hours**; we're not solving the whole event scenario.

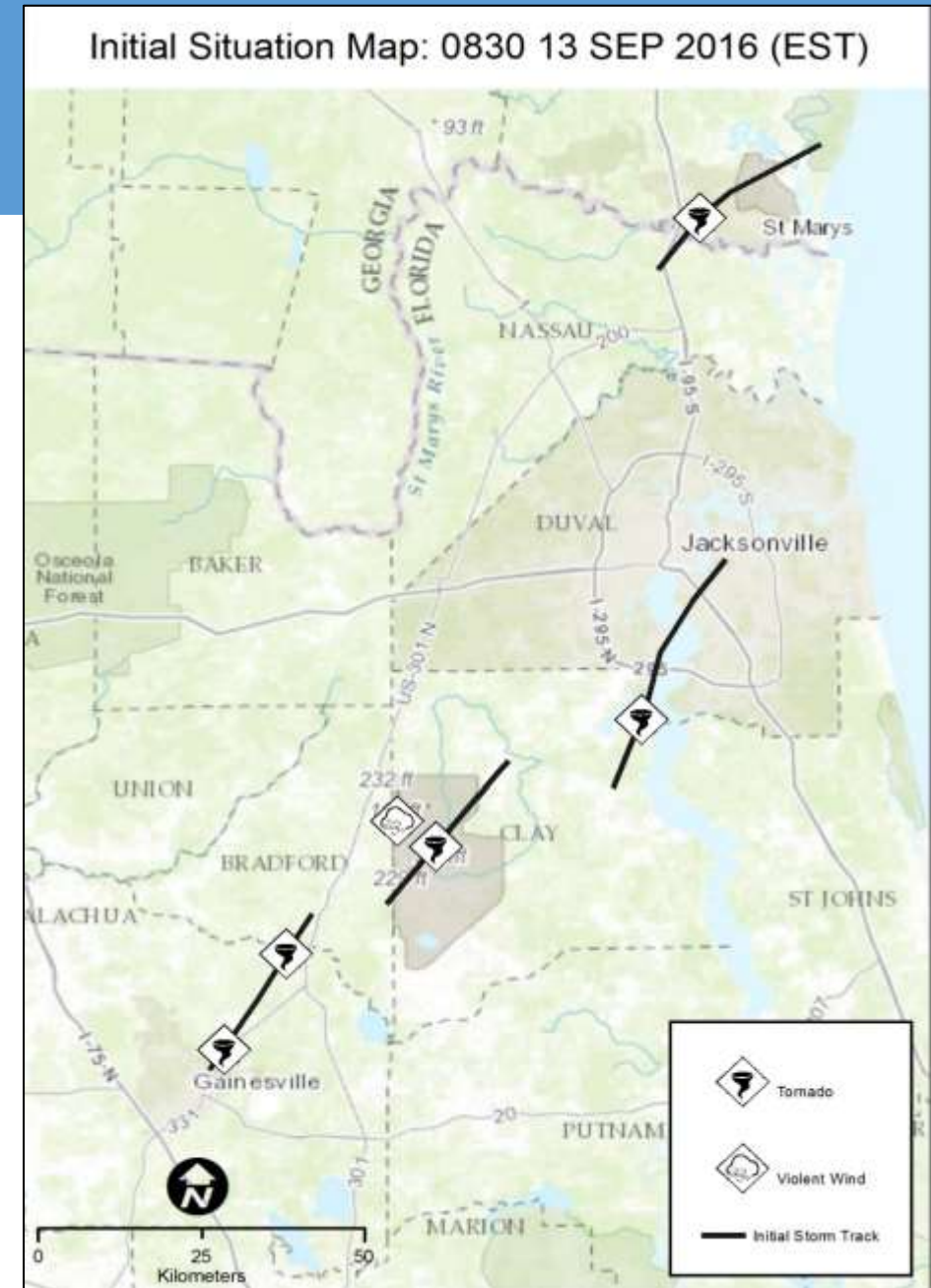
Final Discussion and Hot Wash

- Assign 1 operator and 1 GIS person to present to the larger group once done
- Be prepared to discuss:
 - What trigger points did you identify for when resource information needed to be shared?
 - What were the key decision points?
 - What common operating information was identified to support decision making?
 - What did you take away when you go back to your agency?



0830 September 13

- Tornado outbreak affected a broad regional area spanning from Gainesville to Jacksonville, FL and across state lines into Kingsland, GA
- Initial reports indicate as many as 5 tornadoes have affected Florida Counties of Alachua, Bradford, Clay, and Duval and Camden (GA)
- Severe line of thunderstorms associated with a rare convergence of frontal boundaries from the north with a large low pressure tropical system from the south
- Resulting in several mass casualty incidents, severe damage to community lifelines (power/communications) in affected areas



Impact Summary

- Resulting in several mass casualty incidents, severe damage to community lifelines (power/communications) in affected areas
- Initial casualty estimates project **13,530 INJURED** and **1,811 DECEASED**
- SAR continues for missing and entrapped person aided by a variety of intra- and interstate mutual aid, survivors, and spontaneous volunteers including 53rd Brigade troops
- Initial damage assessments below are based on reports received by Sheriffs and 911 calls or media coverage
- Nearly 25% of housing stock in affected areas of Fleming Island, FL (Clay County) and Kingsland, GA (Camden County) is destroyed or majorly damaged
- Significant damage to community lifelines resulting in power outages, fuel shortages / delayed resupply, and strained communications capabilities.

Countywide Estimates

D+12	Casualties	Juveniles	Adults	D+24	Casualties	Adults
Deceased	906	233	673	Deceased	1,811	1,345
Injured	6,765	1,795	4,970	Injured	13,530	9,940
Missing	345,915	91,779	254,135	Missing	338,244	248,493

Demographics

Jurisdiction	Pop (2012)	Under 5	5 to 19 Years of Age	20 to 64 Years of Age	65+ Years of Age
Clay, FL	193,438	11,869	43,688	113,016	22,292
Bradford, FL	28,814	1,670	4,639	18,098	4,113
Putnam, FL	74,523	4,689	14,111	41,494	14,070
Duval, FL	877,062	59,501	168,614	539,979	96,168
Camden, GA	51,435	3,983	11,285	30,689	4,556
Surrounding Counties (FL)	369,284	19,811	65,141	231,303	43,045

Housing and Structure Damages

Housing Areas (D+12)	Units	Person	Destroyed	Major	Minor	Entrapment
Troop Training Barracks	78	3,500	26	26	28	3
Youth Challenge Camp	8	200	3	3	5	0
Camp Liberty Campground (RV)	200	860	66	66	70	3
Camp Liberty Campground (Primitive)	125	288	41	41	43	4
Vacation Rentals	225	720	UNK	UNK	UNK	UNK
	636	5,568	136	136	146	11

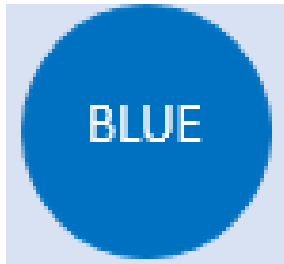
Accessing NAPSG ArcGIS Online Accounts

- **Go To:** <http://www.arcgis.com>
- **Username:** ngps_firstnamelastname
- **Password:** ngps2016
- **Credit Allocation:** 20 per user
- **Role:** Publisher

Exercise Groups

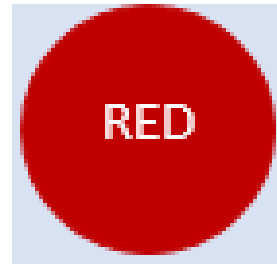
**Florida Division of
Emergency Management**

Plenary Room



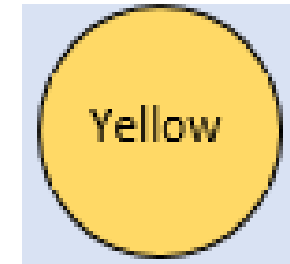
**Georgia Division of
Emergency Management**

Classroom A



**Clay County Emergency
Management**

Classroom B



0915 – Inject 1

- At D+12 an initial situation map has been created providing current data on the tornado and extreme weather locations.
 - The map and data are available @ <http://napsg.maps.arcgis.com/home/item.html?id=6e587ddbfc414dd68fb852c81f9d1251>
 - Hint - Be sure to share your follow-on maps and products with the AGOL group linked here: <http://napsg.maps.arcgis.com/home/group.html?id=c41933c4946d47ce9362ebba5995f61b>
- What decisions need to be made now?
 - What do you need to know to change outcomes for survivors and their communities?
 - What information do you need to support decision making and establish or sustain operational coordination?
- What information do you need to anticipate needs and requirements?
 - What decisions need to be made soon to develop courses of action to stabilize the incident, including: community lifelines, reduce additional loss of life or injury, maintain public health and support medical treatment, and minimize damage to property or the environment?

0945 – Inject 2

- **Information Request** - Decision makers are asking for an assessment of the consequences in the impacted areas so that they can determine the next phase of mission assignments.
 - One source of infrastructure data to support consequence assessment is HIFLD Open: <https://hifld-dhs-gii.opendata.arcgis.com/> - Be sure to utilize standardized symbology for your maps available in the NAPSG Foundation Symbol Library @ <https://www.napsgfoundation.org/all-resources/symbology-library/>
 - Hint - Be sure to share your follow-on products with the AGOL group linked in the 1st inject
- **Operators** - do you have enough resources organically or through existing mutual aid agreements for pre-incident daily levels of service?
 - What resources do you need for the next 24, 36, and 48 hour operational periods?
 - What courses of action will you take to meet resource requirements for the next 24, 36, 48 hour operational periods?
 - When do you anticipate needing to request resources through mutual aid beyond MOUs/MOAs existing pre-incident?

1015 – Inject 3

- **Information Request** - Decision makers need information products to prioritize response efforts for the next operational periods, including:
 - Initial debris management (support entry/re-entry)
 - Search and Rescue
 - Security/Law Enforcement
 - Mass Care
 - Stabilization/Restoration of community lifelines
 - Patient and human remains collection points
- **GIS staff** - help decision makers prioritize these locations using USNG as a tool:
<http://napsg.maps.arcgis.com/home/item.html?id=dc352c5f18854d82b32bce92c0b6656b>
- **Operators** - How are you going to find potentially available resources?
- What do you need to know about potential resources to determine if they meet your operational and other requirements before request through mutual aid?

Final Discussion and Hot Wash

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