

Hands-On Simulation & Tabletop Discussion: Great Galveston Hurricane



November 13, 2019

Hosted by National Alliance for Public Safety GIS (NAPSG) Foundation

napsfoundation.org | [@napsfoundation](https://twitter.com/napsfoundation)

Great Galveston Hurricane Simulation & Tabletop Discussion

- Welcome
- **Please utilize the 8 numbered tables.**
- **Each table will be a team, and will need a mix of:**
 - Decision Maker / Planner / EOC
 - Operator / Field
 - GIS/Technical Specialist
- Our goal today is to build enhanced cooperation and coordination across disciplines as we work through a series of tasks together.

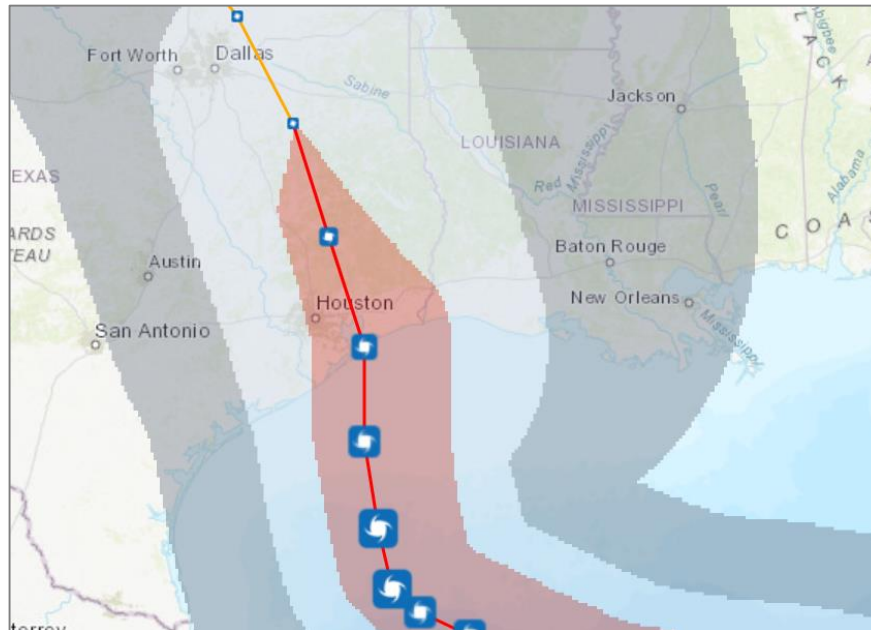
Facilitators

- Michael Chard, Director, City & County of Boulder Office of Emergency Management (CO)
- Michael Ouimet, Unit Chief, Operations Technology – HQ, Texas Division of Emergency Management (TX)
- Jared Doke, Adam Fackler, and Tricia Lawson, NAPSG Foundation

Session Overview

Hands-on technology simulation and tabletop discussion

- SCENARIO: Category 2 hurricane that will severely impact the Galveston, TX area.
- OBJECTIVE: Lay the foundational building blocks pre-incident, to allow for enhanced informed decision making during the incident



No Formal Roles Today

- We represent various roles across various disciplines.
- We encourage everyone to play as themselves, we have no formal roles to fill.
- **Work through the tasks as team.**
- Within your home agencies, most of us can identify with one of the groups:
 - Decision Maker / Planner / EOC
 - Operator / Field
 - GIS / Technical Specialist
- As we work through the simulation, we offer example questions for these groups to spark conversations.



Goals and Outcomes

- **GOAL: Work together across roles and disciplines** to accomplish the tasks today:
 - Gain awareness and understanding of roles/responsibilities of teammates
 - Improved operational coordination
 - Importance of pre-staged GIS tools
 - Understanding the importance of regional GIS data application
 - Improved decision assistance
- **Outcome: Enhanced cooperation, coordination, and preparation** amongst the various roles and disciplines to improve informed decision making



Disclaimer

***We understand that response to large-scale disasters are complex and multi-faceted, however, in order to distill the scenario down and work through it in two hours, we need to focus our efforts on sheltering and incident field data.**

We will work through how to preplan resource and shelter needs based on community demographics; view the status of shelters from a theoretical regionwide shelter dataset in a live dashboard and use a shelter editor to change the status of those shelters; and utilize field data collected by first responders to determine if the status of shelters should be changed. The workflows described are derived from similar workflows being developed by the Colorado North Central All-Hazards Region and the South East Region in partnership with NASPG.

Timeline

Opening of Session

- 2:40 – 2:50 Introductions and Welcome (10 Min)

Preparedness & Readiness Phase

- 2:50 – 3:00 Task 1 (10 min)
- 3:00 – 3:10 Discussion Questions (10 min)

Initial Response Phase

- 3:10 – 3:30 Task 2 (20 min)
- 3:30 – 3:45 Discussion Questions (15 min)

Response & Transition to Recovery Phase

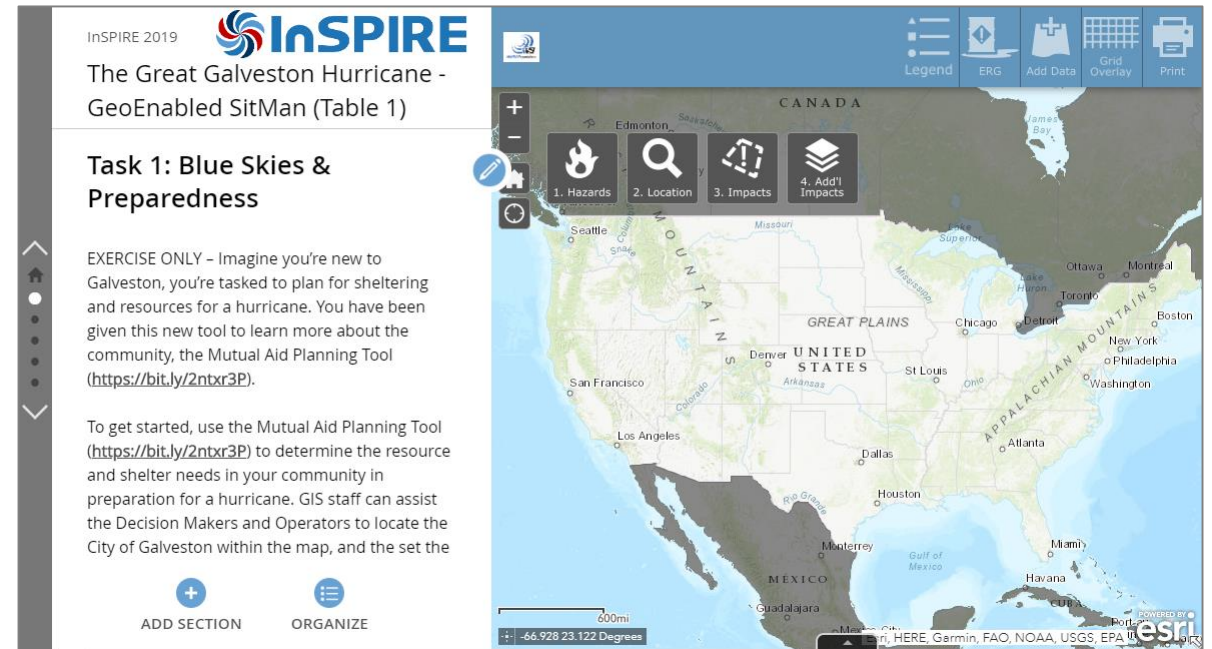
- 3:45 – 4:00 Task 3 (15 Min)
- 4:00 – 4:10 Discussion Questions (10 min)

Closing of Session

- 4:10 – 4:30 Hotwash

Let's Get Started!

- Each table represents the same jurisdiction:
 - Galveston County, TX
- Each table has their own:
 - Geo-Enabled SitMan: StoryMap
 - Situational Awareness Viewer
 - Shelter Editor/Dashboard
- Worksheets on Table
 - Links to each individual product
- Geo-Enabled SitMan
 - Links to individual products by table

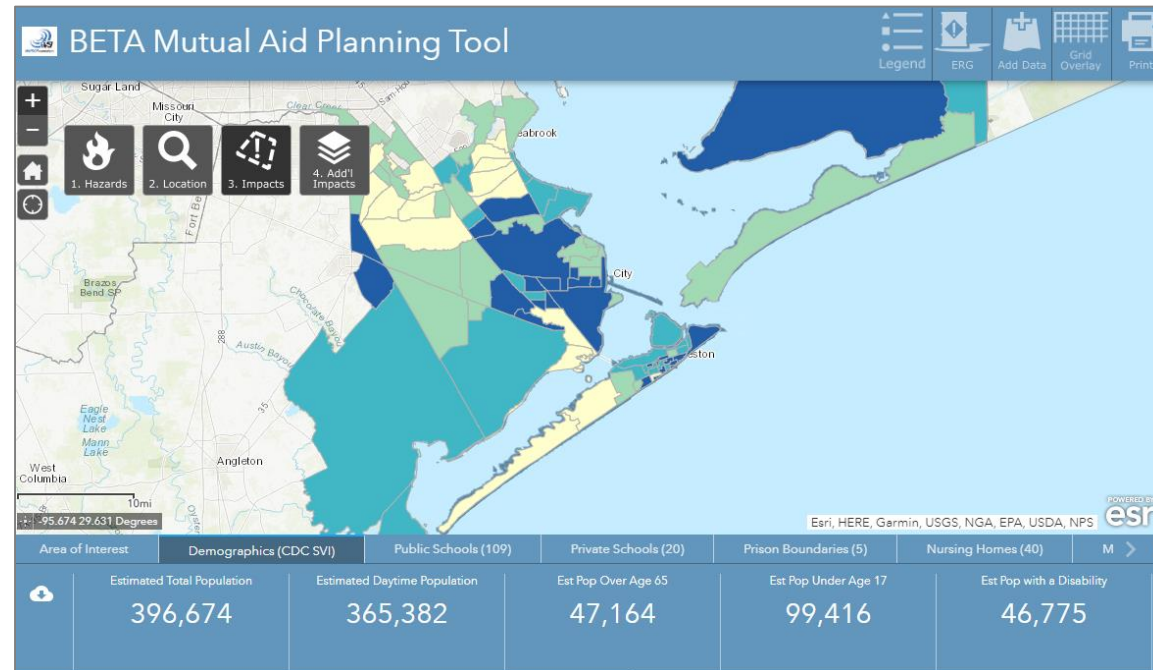


To get started, open your Geo-Enabled SitMan – StoryMap

<https://inspire-napsg.hub.arcgis.com/>

Task 1: Narrative & DEMO

EXERCISE ONLY – Imagine you're new to Galveston, you're tasked to plan for sheltering and resources for a hurricane. You have been given this new tool to learn more about the community, the [Mutual Aid Planning Tool](#)



Demo

- [Mutual Aid Planning Tool](#)



Task 1: 10 minutes 2:50 – 3:00pm

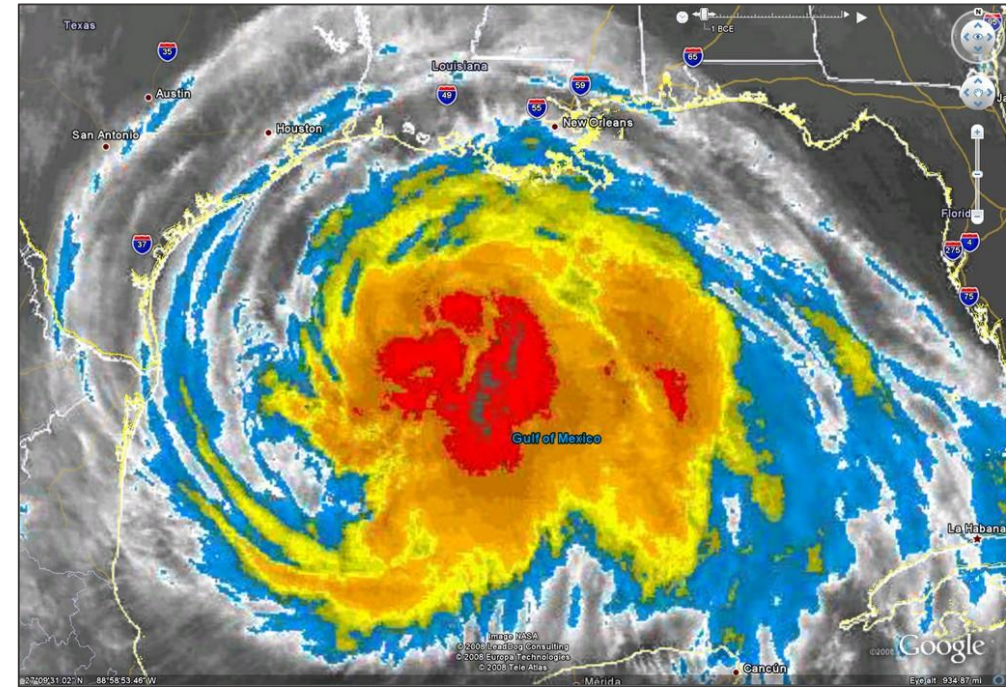
Task 1	
Tasks	To get started, use the Mutual Aid Planning Tool to determine the resource and shelter needs in your community in preparation for a hurricane. GIS staff can assist the Decision Makers and Operators to locate Galveston County within the map, and the set the location for the situational awareness widget to run the analysis. In a lot of instances, various roles are utilizing the same data. How would you utilize this information to prepare for a hurricane? What are your core information needs?
Decision Maker (Example questions)	1. What is the total population in your jurisdiction? What are the special needs and infrastructure? 2. From this information, are you able to make decisions on resource and/or sheltering needs if a hurricane were to occur?
Operator (Example questions)	1. Based on the information provided in this tool, can you make resource decisions based on this information? What decisions can you make? 2. What additional information needs do you need to make decisions at this point?
GIS Technicians (Example questions)	1. Are you able to use this tool to support the decision makers and operators? 2. What additional functionality would make this better?

Task 1 Discussion Questions: 10 min 3:00 – 3:10pm

- **What are your core information need in this phase?**
- Would you be able to determine the number of shelters needed, by using this tool?
- Would you able to make resource decisions based on this information? What decisions could you make?
- What additional functionality do you need to make decisions?

Incident Briefing

- EXERCISE ONLY – A report from the from the National Weather Service: A category 2 hurricane is forecasted to make landfall within 48 hours and will affect the entire Galveston County.
- *For today, we will focus our efforts on shelters.*
- Many people have decided to evacuate; however, it is estimated that there is a significant population that has remained, whether by choice or due to lack of resources.
- Galveston County, as well as neighboring jurisdictions, has decided to open shelters at this time. Given the currently available data, you will be tasked with determining which shelters to open.



Demo: 3:10pm – 3:15pm

- [Situational Awareness Viewer](#)
- [Shelter Editor/Dashboard](#)



Task 2: 15 min 3:15 – 3:30pm

Task 2	
Tasks	To get started, utilize the Situational Awareness Viewer and turn on the region wide shelters. Utilize the shelter editor tab of the Shelter Dashboard to turn on/off shelters in your jurisdiction. In the Shelters dashboard tab, you can see your sheltering information. What are your core information needs for informed decision making? Does the regional data/information affect your decision making?
Decision Maker (Example questions)	1. Can you quickly visualize the Sheltering impacts by using your Situation Awareness Viewer? 2. Based on this– what Shelters do you want to open? 3. Can you work with your GIS staff to open those shelters?
Operator (Example questions)	1. Based on the current forecast and SLOSH models, would you be able to determine and prioritize potential search segments for first responders and SAR personnel to search once it is safe for them to respond?
GIS Technician (Example questions)	1. Help the decision makers and operators use the situational awareness viewer and shelters dashboard to answer critical questions. 2. Is the region wide data useful? Can/should this approach be implemented on other datasets? 3. Is this dashboard useful in turning data into actionable information? Would this be beneficial in answering questions during an activation?

Task 2 Discussion Questions: 15 min 3:30 – 3:45pm

- **What are your core information needs for informed decision making?**
- **Does the regional data/information affect your decision making?**
- Is the region wide data useful? Can/should this approach be implemented on other datasets?
- Is this dashboard useful in turning data into actionable information?
- Would a sheltering dashboard be beneficial in answering questions during an activation?

Incident Briefing

EXERCISE ONLY – The hurricane tore through the area leaving damage and destruction. SAR and Debris Removal teams are in the field collecting data, painting a picture of the scene outside. We will continue to focus our efforts on sheltering, utilizing field observations provided in the SAR Dashboard to determine if there are any shelters that may need to be closed due to the effects of the hurricane.



org | @napsgfoundation

Demo

- [SAR Dashboard](#)



Task 3: 15 min 3:45 – 4:00pm

Task 3	
Tasks	To begin, utilize the SAR Dashboard to view flooding, search & rescue efforts, and first responder operations. You can also view the SAR data in your Shelter Dashboard to see the data alongside with your shelters. What are your core information needs for informed decision making? Does the field data/information affect your decision making? What additional field information would you find valuable?
Decision Maker (Example questions)	1. Based on the field observations provided in the SAR Dashboard are there any shelters that may need to be closed due to the effects of the hurricane?
Operator (Example questions)	1. Analyze the dashboard. What does this say / mean? Can you identify action items based on info in dashboard.
GIS Technicians (Example questions)	1. Help the operators and decision makers utilize the SAR Dashboard, as well as the Shelter Editor to open and close shelters.

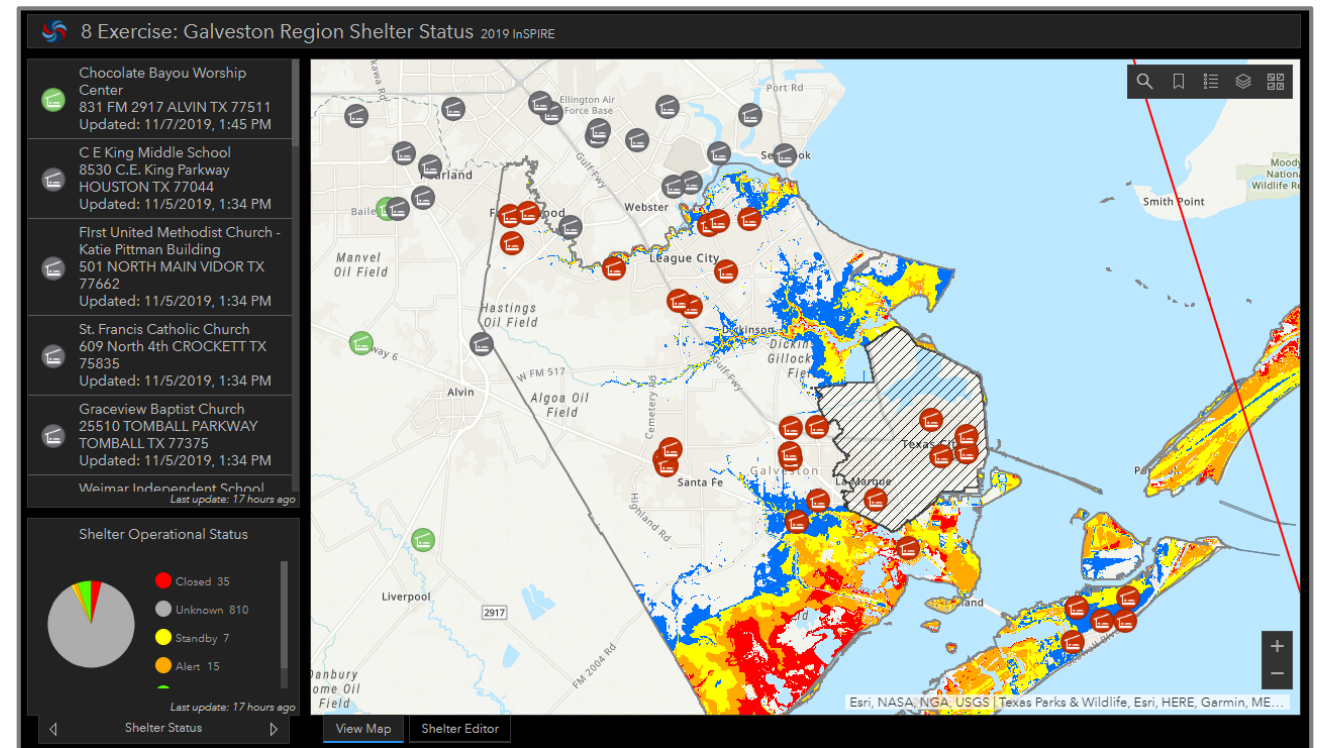
Task 3 Discussion Questions: 10 min 4:00 – 4:10pm

- **What are your core information needs for informed decision making?**
- **Does the field data/information affect your decision making?**
- **What additional field information would you find valuable?**
- Were you able to make decisions on shelters based on the information provided in the SAR Dashboard?
- What additional info would be beneficial?
- Thoughts on shelter editor?

Hotwash: 20 min 4:10 – 4:30pm

What are the takebacks from this session, that you will can utilize in your role/ organization?

- Improved operational coordination
- Improved decision assistance
- Pre-staging GIS tools and data
- Importance of regional GIS data



Thank you!

