

2024 NOAA SECART All-Hazards Exercise: Hurricane Ken

After-Action Report/Improvement Plan

August 20, 2024

The After-Action Report/Improvement Plan (AAR/IP) aligns exercise objectives with preparedness doctrine to include the National Preparedness Goal and related frameworks and guidance. Exercise information required for preparedness reporting and trend analysis is included.

TABLE OF CONTENTS

Exercise Overview.....1

Analysis of Core Capabilities & Objectives2

 Objective 1 4

 Objective 2 5

 Objective 3 6

Appendix A: Improvement PlanA-1

Appendix B: Exercise Participants.....B-1

Appendix C: Acronyms.....C-1

Appendix D: Participant Feedback.....D-1

EXERCISE OVERVIEW

Exercise Name	2024 NOAA SECART All-Hazards Exercise: Hurricane Ken
Exercise Date	May 21, 2024
Scope	This exercise is a tabletop exercise, planned over a 1-day period. Exercise play is limited to invited Jacksonville, FL agencies with a stake/role in disaster and hurricane response and recovery in the area.
Mission Area	Response & Recovery
Core Capabilities	Information & Intelligence; Operational Assistance; Situational Assessment
Objectives	1. Demonstrate and explain the capabilities of each represented agency to increase region-wide collaboration during a hazardous situation. 2. Discuss the capability to provide decision-makers with decision-relevant information regarding the nature and extent of the hazard. 3. Evaluate current plans, policies, and procedures in place to address the region's impacts and restore/revitalize the region to pre-disaster status, while minimizing future health and safety threats and strengthening community resilience.
Threat or Hazard	Major Hurricane
Scenario	An early season tropical storm forms north of the Greater Antilles Islands and is projected to move west-northwest toward the southeastern United States. Due to high pressure, landfall is unlikely north of Brunswick, Georgia and is expected to occur on Monday afternoon or early Tuesday morning.
Participating Organizations	Academia: University of North Florida County: Dorchester County Emergency Management Dept. Energy: TECO Peoples Gas Federal: Department of Labor; National Oceanic and Atmospheric Administration; USMC Blount Island Health: Trident Health State: Fleming Island, FL; FL Department of Environmental Protection
Point of Contact	Emily Carpenter, Lead Meteorologist, National Weather Service Columbia, SC, (803) 822-8133, emily.carpenter@noaa.gov

ANALYSIS OF CORE CAPABILITIES & OBJECTIVES

Aligning exercise objectives and core capabilities provides a consistent taxonomy for evaluation that transcends individual exercises to support preparedness reporting and trend analysis. Table 1 (on page 3) includes the exercise objectives, aligned core capabilities, and performance ratings for each core capability as observed during the exercise and determined by the evaluation team.

Core Capability	Objective	Performed without Challenges (P)	Performed with Some Challenges (S)	Performed with Major Challenges (M)	Unable to be Performed (U)
Situational Assessment	Demonstrate and explain the capabilities of each represented agency to increase region-wide collaboration during a hazardous situation.		✓		
Information & Intelligence	Discuss the capability to provide decision-makers with decision-relevant information regarding the nature and extent of the hazard.		✓		
Operational Assistance	Evaluate current plans, policies, and procedures in place to address the region's impacts and restore/revitalize the region to pre-disaster status, while minimizing future health and safety threats and strengthening community resilience.		✓		

Table 1. Summary of Core Capability Performance

Ratings Definitions:

- **Performed without Challenges:** The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s) and did not negatively impact the performance of other activities. Performance of this activity did not contribute to additional health and/or safety risks for the public or for emergency workers, and it was conducted in accordance with applicable plans, policies, procedures, regulations, and laws.
- **Performed with Some Challenges:** The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s) and did not negatively impact the performance of other activities. Performance of this activity did not contribute to additional health and/or safety risks for the public or for emergency workers, and it was conducted in accordance with applicable plans, policies, procedures, regulations, and laws. However, opportunities to enhance effectiveness and/or efficiency were identified.
- **Performed with Major Challenges:** The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s), but some or all of the following were observed: demonstrated performance had a negative impact on the performance of other activities; contributed to health and/or safety risks for the public or for emergency workers; and/or was not conducted in accordance with applicable plans, policies, procedures, regulations, and laws.
- **Unable to be Performed:** The targets and critical tasks associated with the core capability were not performed in a manner that achieved the objective(s).

***Note:** The following information provides an overview of the performance related to each objective of this exercise.*

Objective 1: Demonstrate and explain the capabilities of each represented agency to increase region-wide collaboration during a hazardous situation.

The strengths and areas for improvement for each objective are described in this section.

Strengths

The partial capability level can be attributed to the following strengths:

Strength 1: Throughout the two-day workshop and exercise, many Jacksonville area agencies that play a role in disaster management were in attendance to build relationships as well as learn.

Strength 2: The expertise and level of representation increased the participant's knowledge of each office and their specific roles, capabilities, and assets during disaster situations.

Strength 3: Each represented office demonstrated and explained the ways in which they work to alleviate barriers and coordinate across and between regional agencies to ensure a comprehensive response to the disaster.

Areas for Improvement

The following areas require improvement to achieve the full capability level:

Area for Improvement 1: Although many Jacksonville area agencies were in attendance throughout the workshop and exercise, it was noted that some key agencies were not able to attend, which created information gaps.

Area for Improvement 2: Within the Jacksonville area, agency roles, capabilities, and assets were clearly explained. However, there were situations brought up that pointed to uncertainty of resource availability and potentially the need for resource deconfliction. It was noted that having higher level decision-makers present during the exercise could lead to pre-disaster conversations to ensure a comprehensive response.

Area for Improvement 3: The presentations from each of the represented agencies provided critical knowledge and information for the discussion portion of the exercise. However, participants noted the desire and need for additional information related to each of these agencies.

Objective 2: Discuss the capability to provide decision-makers with decision-relevant information regarding the nature and extent of the hazard.

The strengths and areas for improvement for each objective are described in this section.

Strengths

The partial capability level can be attributed to the following strengths:

Strength 1: Within the Jacksonville area, many disaster-focused organizations and agencies have redundant communication methods in place to ensure decision-relevant information can be shared to decision-makers.

Strength 2: At times, response agencies work and communicate in silos unintentionally isolating their operations from partner agencies. Exercise participants expressed commitment to collaborate and share information with partners for a unified response.

Strength 3: Throughout the Jacksonville area, there are contingency plans in place that address preparedness, response, and recovery efforts for various disasters, such as the landfall of a major hurricane. An example of this would be the USCG plans to clear debris and reopen ports after hurricane landfall.

Areas for Improvement

The following areas require improvement to achieve the full capability level:

Area for Improvement 1: After a disaster of this magnitude, communication methods will be severely degraded and even with multiple redundancy options, area agencies may not be able to easily share disaster information with decision-makers.

Area for Improvement 2: It would be beneficial (during disaster situations) for agencies to continue communicating regardless of any communication interruptions. To do this, agencies would need to ensure their alternate methods of communication are identified, shared, and are capable of interoperability.

Area for Improvement 3: Based on the exercise discussion, it is unclear how agile agencies would be to adapting those existing plans in an effort to respond to a different type of disaster.

Objective 3: Evaluate current plans, policies, and procedures in place to address the region's impacts and restore/revitalize the region to pre-disaster status, while minimizing future health and safety threats and strengthening community resilience.

The strengths and areas for improvement for each objective are described in this section.

Strengths

The partial capability level can be attributed to the following strengths:

Strength 1: In the Jacksonville area, many response and recovery plans exist to guide responders including the [Northeast and Eastern Central Florida Area Contingency Plan](#), the Emergency Operations Plan, the [Duval County Local Mitigation Strategy](#), as well as the [Florida Marine Debris Reduction Plan](#).

Strength 2: Throughout the workshop and exercise, various agencies shared situational awareness tools and methods used to ensure decision-makers are provided the best and most up-to-date disaster information.

Areas for Improvement

The following areas require improvement to achieve the full capability level:

Area for Improvement 1: The exercise highlighted the need for additional cross-agency plans, specifically to address communications and other disaster-related coordination efforts.

Area for Improvement 2: Although there are various methods available in the Jacksonville area for situational information, the ability for decision-makers to access this information will more than likely be diminished as a result of the disaster magnitude. Additional measures should be considered to mitigate this potential information exchange barrier.

APPENDIX A: IMPROVEMENT PLAN

This Improvement Plan (IP) has been developed specifically for those who participated in the 2024 NOAA SECART All-Hazards Exercise conducted May 21, 2024. These documented recommendations are based on the participant's discussions that occurred during the exercise.

Objective	Issue/Area for Improvement	Corrective Action	Primary Responsible Organization	Organization POC	Start Date	Completion Date
Demonstrate and explain the capabilities of each represented agency to increase region-wide collaboration during a hazardous situation.	1. Although many Jacksonville area agencies were in attendance throughout the workshop and exercise, it was noted that some key agencies were not able to attend, which created information gaps.	a. Based on this scenario (as well as others common to the region), outline which agencies were not able to attend, but would play a role in response or recovery efforts.				
		b. Setup specific meetings with these agencies to update/brief on this exercise as well as related efforts in the region.				
		c. Continue to encourage and ensure agency availability for the next workshop, meeting, exercise, etc.				
		d. Consider polling area participants to learn what time of year works best to hold workshops and exercises.				

	2. Within the Jacksonville area, agency roles, capabilities, and assets were clearly explained. However, there were situations brought up that pointed to uncertainty of resource availability and potentially the need for resource deconfliction. It was noted that having higher level decision-makers present during the exercise could lead to pre-disaster conversations to ensure a comprehensive response.	a. Identify those key, higher level decision-makers who were not able to attend, but who need to be brought into the conversation.				
		b. Pre-identify potential resources that may need deconfliction during a disaster response and/or recovery.				
		c. Pull key decision-makers together to discuss ways to deconflict these resources prior to the next disaster.				
		d. Between regional partners, identify potential “shared resources” (e.g., shelters, reunification sites, points of distribution, logistics management facilities, etc.) that could benefit all jurisdictions during a large-scale event.				
	3. The presentations from each of the represented agencies provided critical knowledge and information for the discussion portion of the exercise. However, participants noted the desire and need for additional information related to each of these agencies.	a. Provide these presentations to exercise participants (if not already done) to enhance cross-agency education.				
		b. Allow additional time for each presenter ensuring they’re able to include the breadth of their office’s work (vs. just mission).				
		c. Consider facilitating/hosting SECART-focused webinar series allowing members to				

		learn more about each NOAA program/office.				
--	--	---	--	--	--	--

Objective	Issue/Area for Improvement	Corrective Action	Primary Responsible Organization	Organization POC	Start Date	Completion Date
Discuss the capability to provide decision-makers with decision-relevant information regarding the nature and extent of the hazard.	1. After a disaster of this magnitude, communication methods will be severely degraded and even with multiple redundancy options, area agencies may not be able to easily share disaster information with decision-makers.	a. Evaluate (through polls, discussions, etc.) which ways decision-makers prefer to receive disaster-related information – especially in a degraded environment.				
		b. Explore potential new and/or improved communications technology that would allow for the transmission of critical disaster information in a degraded environment.				
		c. Based on this evaluation, work with community agencies for long-term, cross-agency planning to acquire new (or upgraded) communications equipment and methods on a similar timeline.				

	2. It would be beneficial (during disaster situations) for agencies to continue communicating regardless of any communication interruptions. To do this, agencies would need to ensure their alternate methods of communication are identified, shared, and are capable of interoperability.	a. Identify common communication channels to communities in the impacted area.				
		b. Identify alternative methods of communicating. Once identified, share with area agencies and ensure those methods support two-way flow of information (such as amateur radio).				
	3. Based on the exercise discussion, it is unclear how agile agencies would be to adapting those existing plans in an effort to respond to a different type of disaster.	a. Research current Jacksonville area plans and determine which ones have applicable components that could be modified and implemented during multiple disaster situations/scenarios.				
		b. Compiled a team of appropriate agency representatives to take on the project of adapting the identified area plan components for preparedness, response, and recovery efforts for various common Jacksonville disasters.				

Objective	Issue/Area for Improvement	Corrective Action	Primary Responsible Organization	Organization POC	Start Date	Completion Date
Evaluate current plans, policies, and procedures in place to address the region's impacts and restore/revitalize the region to pre-disaster status, while minimizing future health and safety threats and strengthening community resilience.	1. The exercise highlighted the need for additional cross-agency plans, specifically to address communications and other disaster-related coordination efforts.	a. Assess the current cross-agency plans, policies, and procedures and identify any areas for improvement or gaps that need to be addressed to make response and recovery efforts smoother.				
		b. Potentially poll (or similar) community preparedness, response, and recovery agencies to help identify other areas where new or improved plans, policies, and/or procedures could enhance regional efforts.				
		c. Based on the identified gaps, compile a team of key representatives to brainstorm and build additional area plans.				
		d. Work toward developing inter-jurisdictional action plans that allow for additional coordination for all types of common disasters in the area.				
	2. Although there are various methods available in the Jacksonville area for situational information, the ability for decision-makers to access this information will more than likely be diminished as a result	a. Determine and document (if not already done) cross-agency communications needs based on different types of disasters.				

	of the disaster magnitude. Additional measures should be considered to mitigate this potential information exchange barrier.	b. Explore additional communication and coordination methods available to fill the identified gaps during the assessment process.				
--	--	---	--	--	--	--

APPENDIX B: EXERCISE PARTICIPANTS

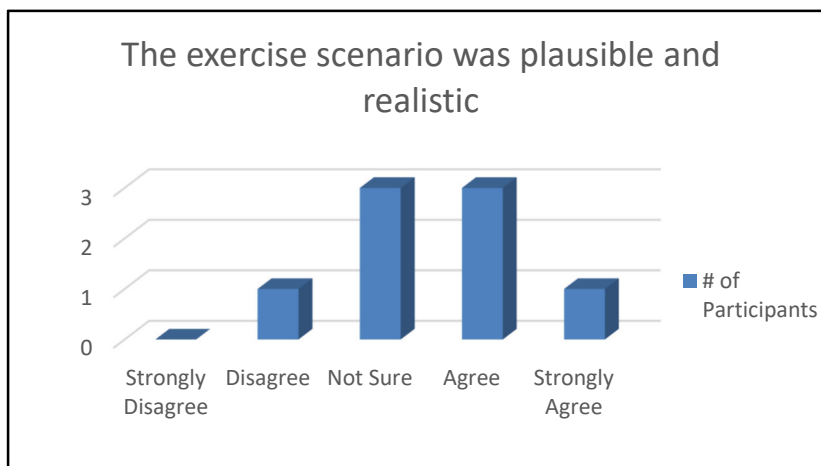
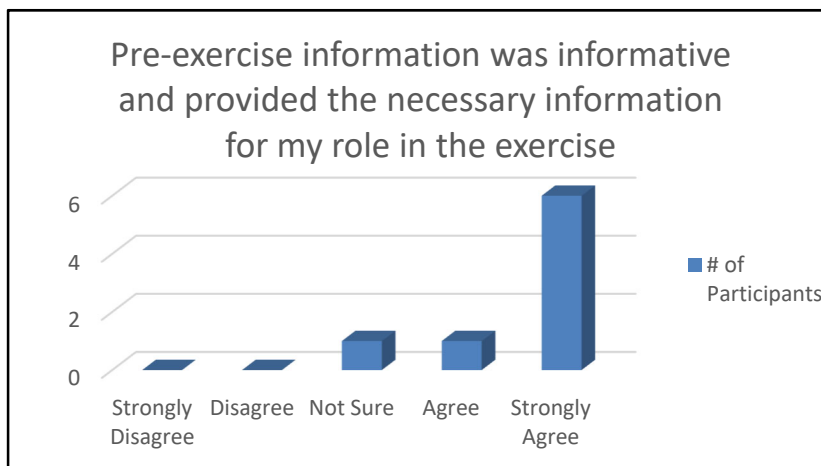
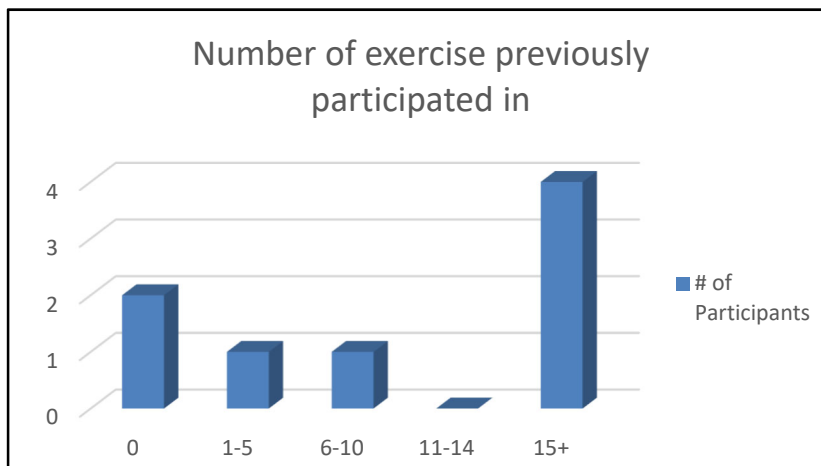
Last	First	Agency	Email
Booth	Alex	NOAA/NWS/WFO Jacksonville, FL	alexander.booth@noaa.gov
Brinson	Gracie	FL Department of Environmental Protection	gracie.kennedy@floridadep.gov
*Carpenter	Emily	NOAA/NWS/WFO Columbia, SC	emily.carpenter@noaa.gov
Cooper	Scott	Trident Health	scott.cooper@hcahealthcare.com
Cordero	Scott	NOAA/NWS/WFO Jacksonville, FL	scott.cordero@noaa.gov
Deamer	Nicholas	Dorchester County Emergency Management Dept.	ndeamer@dorchestercountysc.gov
Egan	Katharine	NOAA, SECART Regional Coordinator	katharine.egan@noaa.gov
*Enyedi	Angie	NOAA/NWS/WFO Jacksonville, FL	angela.enyedi@noaa.gov
Greenlaw	Robert	University of North Florida	r.greenlaw@unf.edu
Hale	John	University of North Florida	john.hale@unf.edu
Knigge	Kelly	TECO Peoples Gas	KWKnigge@tecoenergy.com
Konarik	Stephen	NOAA/NWS/National Hurricane Center	stephen.konarik@noaa.gov
*Krushinski	Katie	NOAA/Homeland Security Program Office	katherine.krushinski@noaa.gov
Mack	Brierra	FL Department of Environmental Protection	brierra.mack@floridadep.gov
McKinley	Donielle	FL Department of Environmental Protection	donielle.mckinley@floridadep.gov
*Okulski	Richard	NOAA/NWS/WFO Columbia, SC	richard.okulski@noaa.gov
Oxendine	Wardrecka	Department of Labor	oxendine.wardrecka.l@dol.gov
Pendleton	Matt	NOAA/NOS/Office for Coastal Management	matt.pendleton@noaa.gov
Rogers	Fred	USMC Blount Island	willie.rogers@usmc.mil
*Sandrik	Al	NOAA/NWS/WFO Jacksonville, FL	al.sandrik@noaa.gov
Schmidt	John	NOAA/NWS/River Forecast Center, GA	john.schmidt@noaa.gov
Timmers	Samantha	NOAA/Office of Marine & Aviation Operations	samantha.timmers@noaa.gov
Weatherby	Don	Fleming Island, FL	donald.weatherby@flhealth.gov
*Zebrowski	Allyssa	NOAA/NOS/ORR/Disaster Preparedness Program	allyssa.zebrowski@noaa.gov

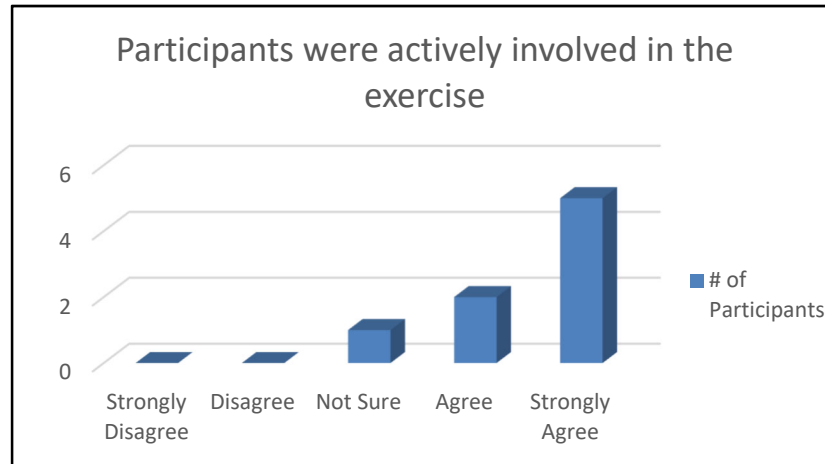
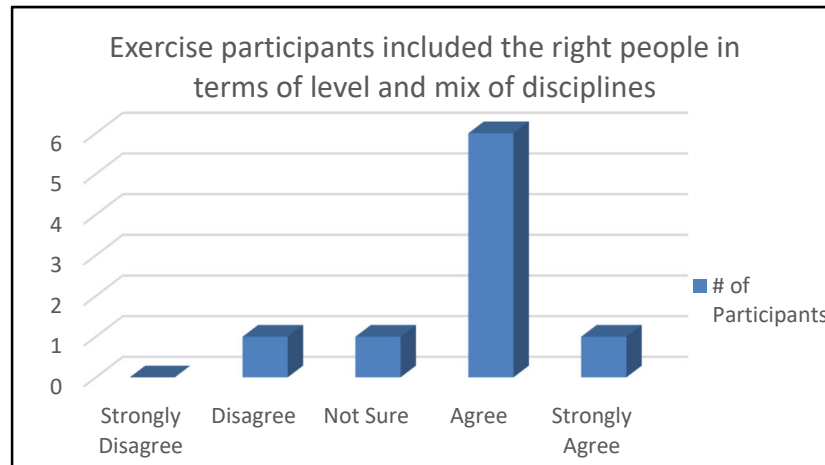
**Denotes Exercise Design Team members.*

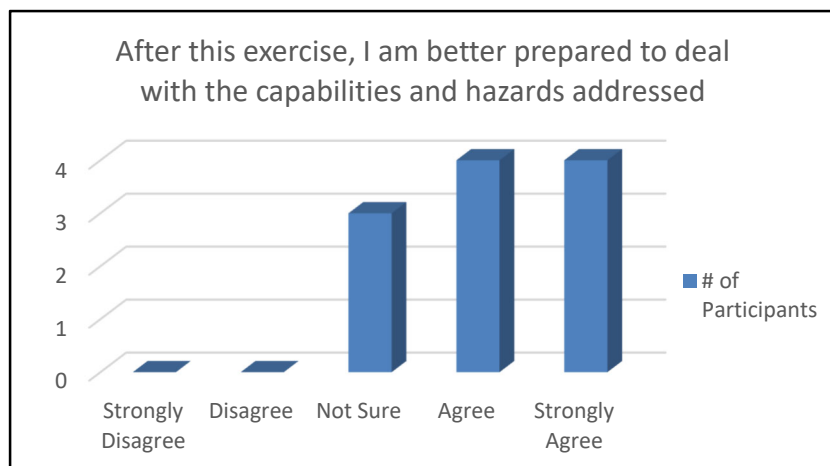
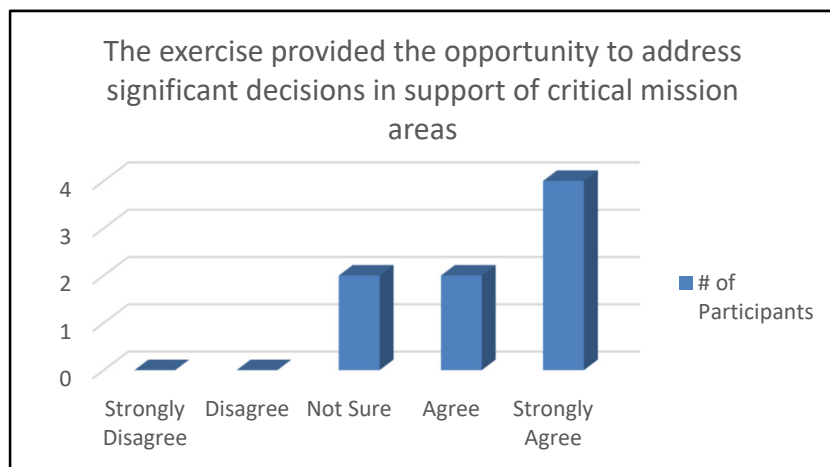
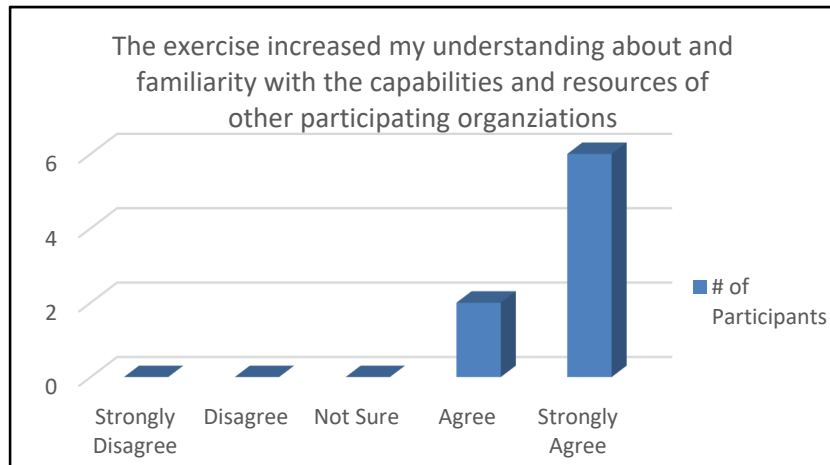
APPENDIX C: ACRONYMS

Acronym	Term
AAR	After Action Report
FL	Florida
GA	Georgia
IP	Improvement Plan
NOAA	National Oceanic and Atmospheric Administration
NOS	National Ocean Center
NWS	National Weather Service
ORR	Office of Response and Restoration
SC	South Carolina
SECART	Southeast and Caribbean Regional Collaboration Team
USCG	United States Coast Guard
USMC	United States Marine Corps
WFO	Weather Forecast Office

APPENDIX D: PARTICIPANT FEEDBACK







Note: The following views, thoughts, and opinions expressed in the text below belong solely to the author, and not necessarily to the organization, committee, or other exercise participants.

I observed the following strengths during this exercise:

- Learned so much about the NOAA line offices!
- Great interaction with other attendees.
- NOAA's diverse tools that can be provided.
- Regional coordination and communication
- Networking with our agencies and hearing the expertise and experience in the field. Coming from the federal side our process is so different and nowhere compare to magnitude of work our counterparts put in.
- Small breakout groups were good for impactful conversations. Participants were engaged and offered useful information.
- it was great learning of all the different agencies and what they do.

I observed the following areas for improvement during this exercise:

- More participation from emergency management (local).
- Need more multi-discipline attendees.
- Getting other agencies that should have been at the table to participate.
- I am out of state so most of the players and partners were associated with the Jacksonville area, which makes sense. But in the grand scheme of things, having people in my region would have been a more benefit. But this is a regional conference/workshop, so it was neat to learn about the region.
- It was already suggested but it would have been great if other agencies that we were familiar with their process were there to provide more guidance.
- Diversity of participants (agencies and level of gov't) was lacking. This is an inherent risk when there are several tabletop exercises in one region over a short period of time.
- Bringing in more career fields

What specific training opportunities helped you (or could have helped you) prepare for this exercise? Please provide specific course names if possible.

- The workshop on the previous day, very well done!
- Capabilities of NOAA
- "Get to know your NOAA" was helpful information however years of experience was the best teacher.
- I am fresh out of school, so I have not done much but internships and classes during my degrees were added benefits to my knowledge which was surprising but pleasing.
- FEMA courses which address NIMS, ICS structure and EOC operations.
- Networking during the training

Which exercise materials were most useful? Please identify any additional materials or resources that would have been useful

- I liked how you incorporated slack into the exercise for injects!
- Exercise scenarios.
- The visual aids were most useful and the storm surge information.
- The questions were thoughtful and intuitive. I enjoyed going around in our groups and hearing the different perspectives based on backgrounds and locations across FL.
- Hurrevac graphics were familiar and realistic. Module briefings were informative and helped set the stage for group discussions.
- Slideshow and breakout groups
- The weather briefings at the beginning of each section gave an excellent idea of the situation we were faced with and allowed for a good understanding of which critical resources were impacted (hospitals, oil reserves, etc.) at the time.

Please provide any recommendations on how this exercise or future exercises could be improved or enhanced.

- Really, more participation from external to NOAA groups, I learned so much and feel they could too!
- Exercise was excellent.
- Per the discussion at the hotwash the timing to be able to get more of the players needed to participate.
- Trying to get more involvement from people across our region instead of just local to the area in which it is being held. Also, try to have injects or scenarios during the exercise instead of just questions and group discussions. Keep us on our toes.
- Having a question somewhere focused on concessions/areas where each representative has to reflect on their office's limitations when thinking about how their office reacts to emergency situations might be beneficial to allow for an understanding of where each office can help the other out and be realistic about expectations in a hypothetical scenario.