

NOAA Emergency Response Posture Workshop

After-Action Report/Improvement Plan

June 13-15, 2017

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.

EXERCISE OVERVIEW

Exercise Name	NOAA Emergency Response Posture Workshop
Exercise Dates	June 13-15, 2017
Scope	This exercise was a tabletop exercise, planned for 3 days —with one day of training — at the Office for Coastal Management (2234 South Hobson Ave., Charleston, SC 29305).
Mission Area(s)	Prevention, Mitigation, Response, and Recovery
Core Capabilities	Situational Assessment, Communication, and Finance, Legal & Administration
Objectives	<ol style="list-style-type: none">1. Demonstrate and explain the capability of each represented NOAA office to increase agency-wide awareness and collaboration during a hazardous situation.2. Discuss the capability to deliver coordinated, prompt, reliable, and actionable information among NOAA Line Offices, upper management, and the Regional Collaboration Team, as well as identifying the best tools to accomplish this.3. Evaluate NOAA's capacity to maintain a coordinated response in a hazardous situation through discussion of Line Office management of staff, resources, and communications.
Threat or Hazard	Major Hurricane (cat. 3+)
Scenario	Major hurricane (cat. 3+) threatening the United States East Coast.
Sponsor	Southeast and Caribbean Regional Collaboration Team (SECART)
Participating Organizations	NOAA (various offices), SC Sea Grant, and SECOORA.
Point of Contact	Matt Moreland, Meteorologist-in-Charge, Florida Keys Weather Forecast Office, (305) 295-1316 ext. 222.

ANALYSIS OF CORE CAPABILITIES

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 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.

Objective	Core Capability	Performed without Challenges	Performed with Some Challenges	Performed with Major Challenges	Unable to be Performed
Demonstrate and explain the capability of each represented NOAA office to increase agency-wide awareness & collaboration during a hazardous situation.	Situational Assessment		✓		
Discuss the capability to deliver coordinated, prompt, reliable, and actionable information between NOAA Line Offices, upper management, and the Regional Collaboration Team, as well as identifying the best tools to accomplish this.	Communication		✓		
Evaluate NOAA's capacity to maintain a coordinated response in a hazardous situation through discussion of Line Office management of staff, resources, and communications.	Finance, Legal, & Administration		✓		

Table 1. Summary of Core Capability Performance

**Performance rating definitions are found on the following page.*

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 additional 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).

The following sections provide an overview of the performance related to each exercise objective and associated core capability, highlighting strengths, and areas for improvement.

ANALYSIS OF OBJECTIVES

Objective 1: Demonstrate and explain the capability of each represented NOAA office to increase agency-wide awareness and 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: Experience and senior level representation of participants.

Strength 2: NOAA Line Offices exhibit a culture of cooperative operational cross-cutting that tends to come to the forefront to get things done—especially in times of emergencies.

Strength 3: All but one office in the region—with more than 30 employees—were represented at the workshop

Areas for Improvement

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

Area for Improvement 1: Not all offices in the region were able to attend the exercise. This resulted in information gaps and areas in which planning was not possible.

Area for Improvement 2: Due to time restrictions, limits had to be set for presentation length. As a result, this hampered productive discussion and participant's understanding of each office's roles and responsibilities. Further, while NOAA staff now have a better awareness of other Line Office responsibilities and capabilities, time did not allow in-depth exploration of how we can coordinate better among offices.

Area for Improvement 3: The proposed directory with accompanying response roles for each Line Office should be a valuable tool throughout the organization and for partners – especially for those not as experienced as some of the more senior workforce.

Objective 2: Discuss the capability to deliver coordinated, prompt, reliable, and actionable information between NOAA Line Offices, to upper management, and the Regional Collaboration Team, as well as identifying the best tools to accomplish this.

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: Certain offices with response authority have procedures and tools for information management and sharing that are established and effective.

Strength 2: ERD's experience and 24/7 on-scene response missions are well suited to continuously update situational information and status from operational centers during emergency response.

Strength 3: There was considerable enthusiasm among workshop participants to better understand and coordinate capabilities across the region.

Areas for Improvement

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

Area for Improvement 1: Information flows up to management fairly well through the requests by SMTs, HSPO, etc. However, information does not flow back down to the field offices or across field offices well, resulting in "stove-piped" communications and response/recovery

Area for Improvement 2: The role(s) of the Regional Collaboration Teams in facilitating communications is not well defined (or even if there should be a role).

Area for Improvement 3: Although we have many tools and platforms to collect and disseminate information, there isn't one that is always used where information can be collected/found. Clarity from NOAA on the preferred (or required) tools for collection and dissemination of information during a disaster/response/recovery would be helpful.

Objective 3: Evaluate NOAA's capacity to maintain a coordinated response in a hazardous situation through discussion of Line Office management of staff, resources, and communications.

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: Workshop participants were eager to develop a resource directory to identify expertise, capabilities, and responsibilities of NOAA offices and other agencies in the region.

Strength 2: ERD's experience and 24/7 on-scene response missions are well suited to continuously update situational information and status from operational centers during emergency response.

Strength 3: Weather Service online info sources are excellent.

Areas for Improvement

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

Area for Improvement 1: For this type of discussion, office management, program directors, and possibly even AAs/DAAAs should be present to help explain and assign resources based on need and availability to ensure a coordinated and effective response.

Area for Improvement 2: Although each office is aware of their own resources (typically), an asset database (such as NRAD) would be beneficial to allow for easy access and query of available resources.

Area for Improvement 3: Once an overall information management plan is developed, we should regularly exercise it.

APPENDIX A: IMPROVEMENT PLAN

This IP has been developed specifically for the Southeast and Caribbean Regional Collaboration Team as a result of Max's Mayhem conducted on June 14-15, 2017.

Objective	Issue/Area for Improvement	Corrective Action	Primary Responsible Organization	Organization POC	Start Date	Completion Date
Demonstrate and explain the capability of each represented NOAA office to increase agency-wide awareness & collaboration during a hazardous situation.	1. Not all offices in the region were able to attend – resulted in info gaps & areas in which planning was not possible.					
	2. Due to time restrictions, limits had to be set for presentation length. This hampered productive discussion and participant's understand of each LO's roles & responsibilities.					
3. Proposed directory w/ accompanying response roles for each LO should be a valuable tool throughout the org & for partners – especially for those not as experienced.						

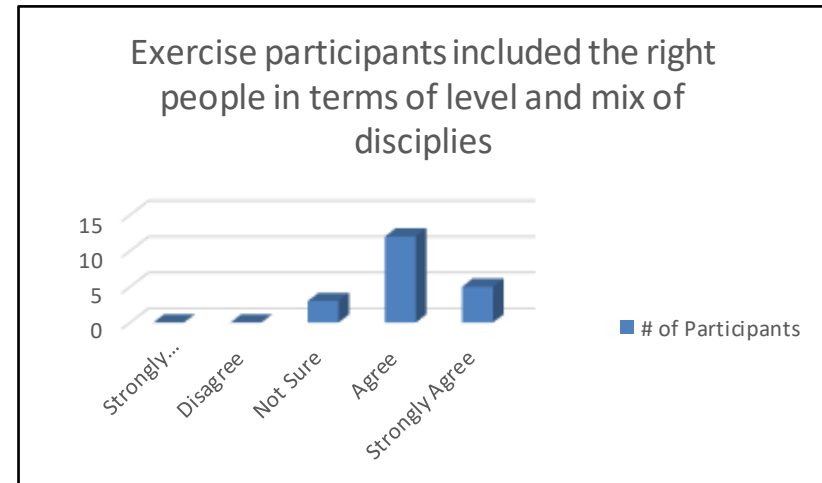
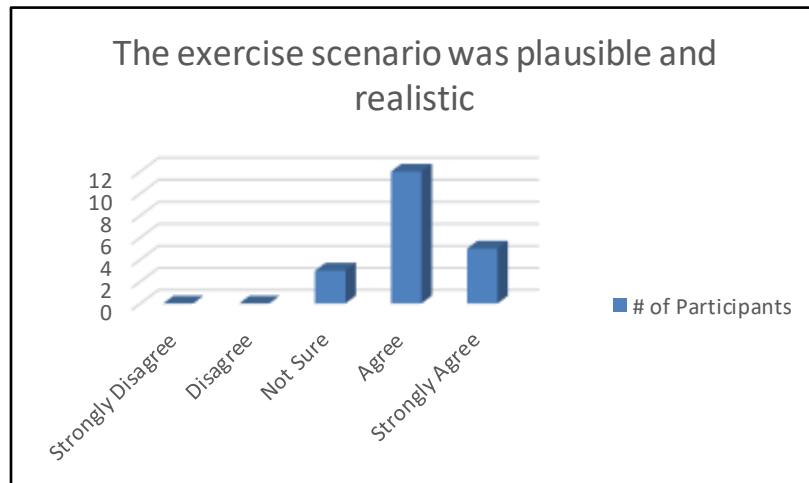
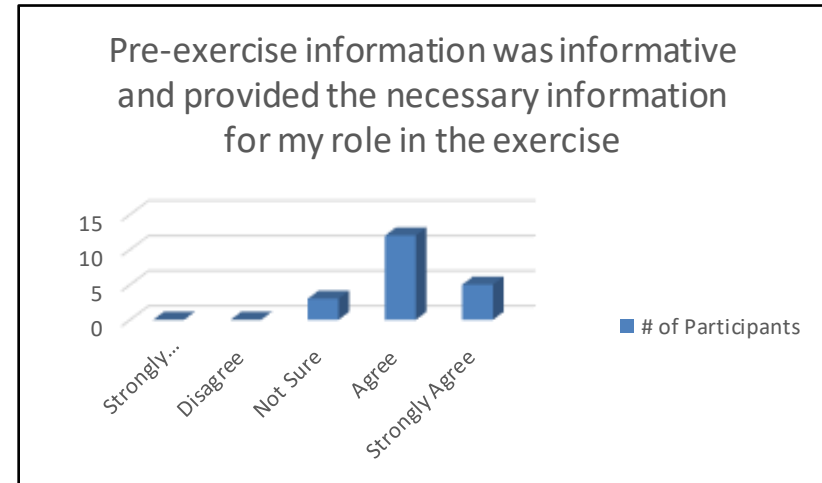
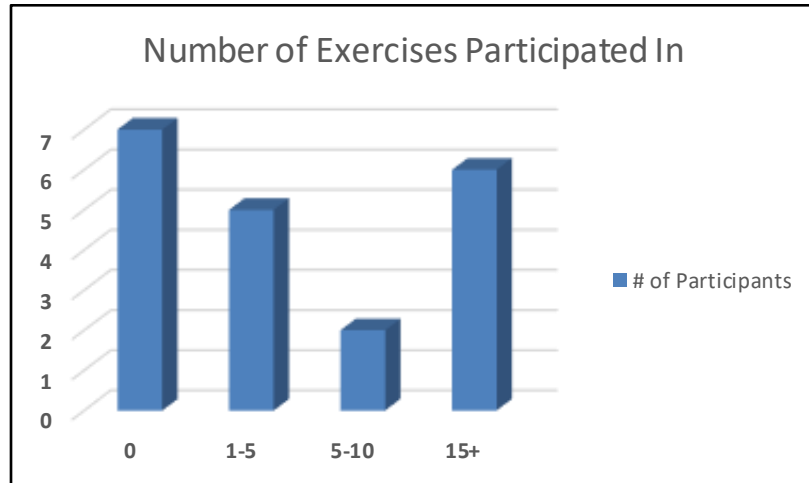
Discuss the capability to deliver coordinated, prompt, reliable, and actionable information between NOAA Line Offices, upper management, and the Regional Collaboration Team, as well as identifying the best tools to accomplish this	1. Info flow up to mgmt. went fairly well through the requests by SMTs, HSPO, etc. However, info does not flow back down/across to field offices well, resulting in "stove-piped" comms and response/recovery.				
	2. The role(s) of the Regional Collaboration Teams in facilitating comms is not well defined (or even if there should be a role).				
	3. Clarity from NOAA on the preferred (or required) tools for collection and dissemination of information during a disaster/recovery would be helpful.				

Evaluate NOAA's capacity to maintain a coordinated response in a hazardous situation through discussion of Line Office management of staff, resources, and communications.	1. For this type of discussion, office mgmt., program directors, & possibly even AAs/DAA's should be present to help explain & assign resources based on need/availability to ensure a coordinated & effective response.				
	2. Although each office is aware of their own resources (typically), an asset database (such as NRAD) would be beneficial to allow for easy access & query of available resources.				
	3. Once an overall information management plan is developed, we should regularly use it.				

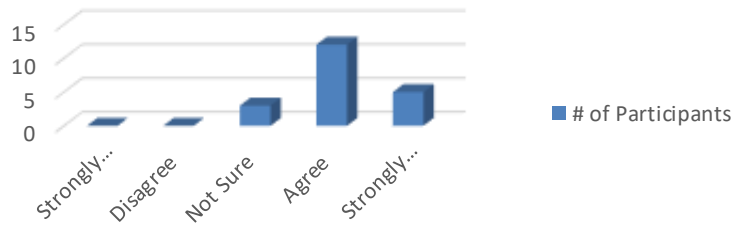
APPENDIX B: EXERCISE PARTICIPANTS

Participating Organizations		
Name	Email	Line Office/Program
Geno Olmi	geno.olmi@noaa.gov	NOS
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Rich Townes	Rich.Townes@noaa.gov	NOS/OCM Facilities

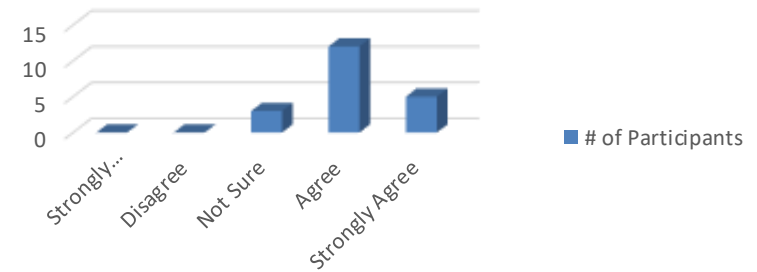
APPENDIX C: EXERCISE STATISTICS & FEEDBACK



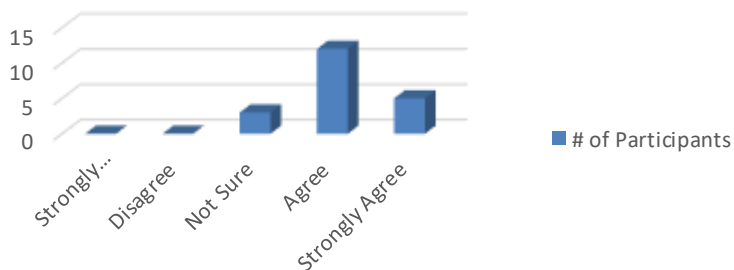
The exercise increased my understanding about and familiarity with the capabilities and resources of other participating organizations



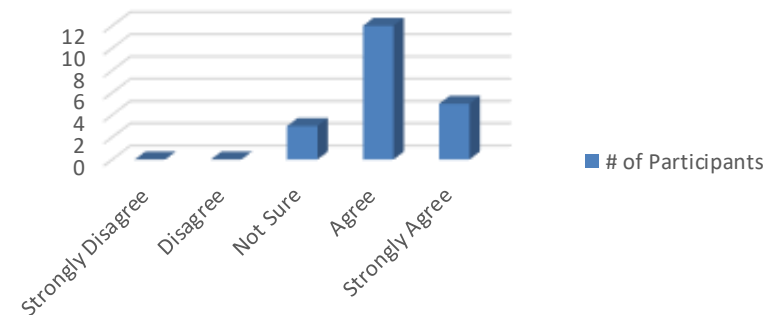
Exercise participation was appropriate for someone in my field with my level of expertise/training

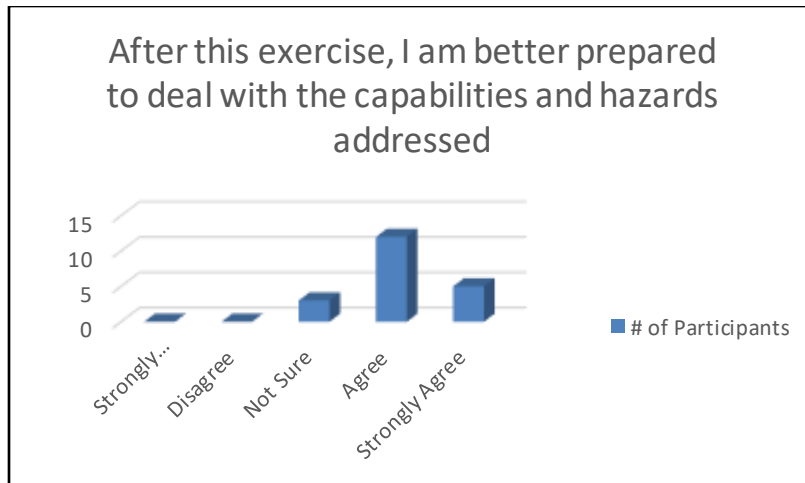


The exercise provided the opportunity to address significant decisions in support of critical mission areas



Participants were actively involved in the exercise





I observed the following strengths during this exercise:

- Very broad depth of knowledge, experience, and expertise
- Openness and willingness to share experiences and observations
- Great support from facility staff (especially Gale)
- Realistic weather graphics/briefings
- Individual Line Office knowledge of their operations, plans, roles, responsibilities, and priorities
- All were extremely knowledgeable in their current positions and understand what needs to be done to accomplish the mission.
- The level of professional responsibility and personal connection to their profession and respect for their resources (people, reef, ports, etc.) is highly commendable.
- Good discussion – all agencies got a chance to speak – nobody dominated too much
- Good representation of agencies
- Desire to list tangible results and follow-ups
- Discussion questions were sufficient to keep groups engaged
- Good mix of offices with each group
- Agency presentations were very well received
- Katie did an excellent job facilitating the exercise
- Good agency representation
- Just about everyone actively engaged in discussion
- Break-out groups worked effectively
- Manageable groups
- Good communication
- Effective time management
- Fostered good discussions among participants
- People learned about new technologies
- A lot of discussion built off old exercises, which I think is good. If furthered past action items, but some conversations were similar
- Wide Line Office representation
- A very positive can-do attitude from all involved in wanting to support any response/recovery efforts for NOAA
- A very willing group for making the most of this exercise and collaborating now in preparedness and response
- Lots of support and interest in how all parts of NOAA work together and what they have to offer
- Participation was good
- Group discussion from multiple perspectives – seemed like from mostly field/players
- Briefing material
- Workshop was well organized
- Preparation was thorough
- Participants were engaged, and conversations were productive

- Communication, teamwork, expertise
- All presentations were very informative and helpful, but I found the NOAA FEMA Liaison and OMS presentations to be particularly helpful
- People were continuously engaged throughout the entire time
- Facilitation was excellent
- There had been a lot of pre-planning that went into the workshop development
- The exercise brought a very diverse set of NOAA players and programs together to better understand what each role is during emergency events and what products, services, tools they can provide to assist your own mgt/responsibilities during these events
- Great cross-section of NOAA expertise/capabilities
- I learned a great deal about other NOAA functions
- Background materials were helpful, concise, and circulated in advance to allow for adequate time prep
- Class was well organized and Katie did an excellent job facilitating
- I appreciated the PPTs and one-pagers participants provided – that was probably the most informative part of the exercise for me and the information presented helped provide context for the discussion of the various modules.
- I liked the demos of the different emergency response databases, ERMA, WebEOC, ResponseLink, etc.
- I liked the small talks from the different offices on how they handle emergency responses
- The breakout groups were good too
- The amount of participants was good too...not too many and not too few.
- The facility was nice
- As far as the exercise, I liked that different groups were represented so the discussions weren't one-sided.
- I liked how it was broken down into modules
- I appreciated the graphics as it made it more realistic.
- The time and day were just right
- Not too many things packed into the agenda and the days didn't go too long
- Very positive engagement of nearly all participants
- Flexibility in working through agenda
- Realistic scenario to frame conversation
- Extended preparation by many participating organizations for single events
- Willingness to communicate by all participating organizations
- Strong commitment by all organizations to carry out mission and protect natural resources, human life, economy, and business
- Nice preparation of graphics and conduct of the briefings
- Making the NOAA Liaison to FEMA present was helpful.
- It would have been nice to have the meeting in the same place as the hotel or even closer.

I observed the following areas for improvement during this exercise:

- Would have been good to focus some of the discussion on cross-LO coordination – ways to improve.
- It would have been nice to take a tour of the facility where we had the course to learn a little more about it.
- Would be helpful to have DRC or SECART staff also facilitate the breakout discussions because our group sometimes got off topic and we weren't always hearing from all perspectives at the table.
- I would consider creating more detailed discussion questions after each module to encourage participants to dig a little deeper in considering roles, responsibilities, and actions/activities of their offices.
- Focus was somewhat unclear: I understood that this was a SECART exercise, but I fielded several Washington D.C. questions. I had not prepared for impacts north of the Carolinas. Pre-exercise clarification might help next time.
- Could have provided a bit more on individual Line Offices up front to cut down on time for presentations.
- It may have been more helpful for our group to have each office have given an answer for each question instead of lumping all office answers into a general summary.
- More specific office procedures would help.
- More participation from Line Offices that have relevant missions/expertise (e.g., ARD, HCD, PRI).
- Needed HQ perspective
- Defined goals/objectives for the exercise – maybe tackle specific objectives vs broad/general.
- Review case study with real lessons learned or areas that need to improve – maybe we could then brainstorm improvements from our Line Offices perspective.
- It might be useful to have other federal or state agencies participate.
- Seemed to be limited understanding of NOAA's role, while important, in response is assigned, not automatic (i.e., people can't just go and do things because they want to or have done it before). This is clearer in ICS standard response.
- Also seemed to be a need for constant flow of information – this may or may not always be possible.
- Some confusion on mission essential functions vs emergency support functions, and then other “just mission” things that wouldn't need to be done immediately following an event.
- More follow-up after exercise like this.
- For hurricanes, it would be good to share the findings out across NOAA before hurricane season.
- Recommend having someone from ORR management participate.
- Try to ensure that at least one rep from various Line Offices participate (ARD, MDD).
- Individual PPT presentations were rushed – would allow at least 15 mins per presentation.

- Ask each Line Office to provide one pager for their respective programs.
- Some folks did not show up.
- Missing some presentations – need all LOs next time as well as USCG and USACE.
- Everyone knew each other and what they are capable of, but there is no single point resource for NOAA contacts in a disaster situation.
- Some hands-on exercises with ERMA, ResponseLink, WebEOC (more) (other tools?) – that would help with info flow and dissemination during response.
- Also, more brainstorming to discuss how good integration of these tools could enhance our preparedness and response.
- Need clear objectives (measurable/documentable) on what will be produced from this workshop that will improve preparedness and response “including” following up to ascertain what each participating Line Office changed or implemented to improve processes that lead to improvement.
- Need to engage other LOs to become familiar with roles and responsibilities.
- Although this was a NOAA exercise, I believe the SE region presentation would have benefited by having repos from the Coast Guard, USACE, or perhaps DHS.
- A major city, county, or state agency emergency management offices would be helpful too.
- Although everyone was willing to communicate, there seemed to be a lot of silo-ed efforts, some duplications, and therefore an unrecognized need to communicate.
- Keeping LO/program presentations to allotted time.
- Providing participants a better understanding of how they fit and info flows.
- Issues with when/if taking any requests for assistance – and how to request assistance from other federal agencies if needed.

What specific training opportunities helped you (or could have helped you) prepare for this exercise?

- Knowing the alphabet soup of phrases that were being used would have been helpful.
- NWS effective hurricane messaging course (April 2017 – NHC)
- Reading the national and local COOP plan(s) ahead of training
- HURREX exercise (USCG)
- ICS
- ERMA
- WebEOC training and use has room for improvement – HSPO will take that on.
- DRC hurricane drill (3+ years ago)
- Little Splash
- The trainings offered on ERMA, WebEOC, and NRAD were good.
- Adding the ResponseLink training was good on the fly.
- Perhaps add a session demo on NWS Chat.
- ICS courses
- USCG exercises and area contingency plans
- Little Splash
- ICS 300/400
- Participation in USCG prep exercises
- Effective hurricane messaging course
- FEMA L-324: Hurricane Preparedness for Decision Makers
- Incident Meteorologist training
- Working real-life events (Matthew, Oct 2015 flooding, etc.)
- Unsure how WebEOC applies
- ICS courses and other similar exercises
- NWS chat
- ICS
- WebEOC (SMTs)
- Science of Oil Spills
- Environmental tradeoffs (IOSC short course)
- Real-life experiences and previous storm events

Which exercise materials were most useful?

- The presentations on what different LOs' roles and responsibilities are was extremely useful.
- LO specific briefings/side line conversations w/ NWS
- Tools and products brought up during Q&A sessions
- Situation manual
- Line Office briefings/presentations
- Weather presentations
- ERMA, ResponseLink, NWS chat accounts, Quicklooks, HDDS
- One-pagers wee great
- Tuesday's training was excellent along with NWS chat discussion
- Situation manual was thorough and complete
- SitMan was useful
- Trajectory map prepared by NWS/hurricane center
- Briefings by programs
- ERMA demo and capabilities
- Scenario briefings (NWS)
- Agency briefings/one-pagers
- Situation manual
- USCG area contingency plan for AOR within impact zone
- Would have like the COOP plan(s) to directly reference
- NWS participants were able to work with briefings templates prior to exercise – this was crucial
- The small presentations by participants were very useful
- Situation Manual
- Would have liked some background on “formal” roles and lines of communications
- Logistics, agenda, and weather briefings
- Bill's list of disaster-related resources within NOAA would be helpful
- 1 website with all COOP plans and hyperlinks

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

- Try to look beyond “this is what we would do” to focus some on improvements – especially as related to coordination across offices
- I would add another exercise like an oil spill or another disaster to prepare folks and to practice.
- We should share the presentations on the Google Drive.
- Also, share the list of participants with the group and perhaps reach out afterwards to see if things have changed in their offices based on what they learned.
- I agree with idea raised during Thursday’s session: compose an exercise summary (especially regarding lessons learned, areas for further evaluation) and submit to NOAA management.
- Before doing next exercise, make sure action items and a report out has been given in order to build upon this week’s work.
- Clear objectives and action items developed
- I liked the Line Office presentations.
- Build on recommendations/lessons learned at this workshop.
- Develop regional response guide/website
- Hold future workshops, perhaps by state and including external partners and federal agencies.
- Recommend keeping same size group, but ensure balanced representation. Not too many, not too few.
- Need to track products, accomplishments, what was not accomplished to set goals, objectives for any future SECART workshops.
- Maybe after 2018 SECART exercise, invite “outside” stakeholders to participate (EPA, State, DOI, FWS, ect.).
- Add state/local (county) participants
- More interactive hands-on
- More scenario injects that would promote ID of Line Office responsibilities for specific issue support, response processes funding issues, authorizations for PRFA of ESF activities, etc.
- Include Line Office level management to obtain a different perspective on incident response.
- Push exercise participants to think beyond regional context when event impacts more than one area.
- Addressing more severe disasters – a cat. 5 hurricane making landfall, a storm threatening HQ/NE so that SE field offices would have to provide back-up support.
- Would like to expand this to other regional teams.
- Portal where NOAA staff and the public could find information on products, services, roles, responsibilities of all NOAA Line Offices.

APPENDIX D: ACRONYMS

Acronym	Term
AA	Assistant Administrator
AAR	After Action Report
AMOL	Atlantic Oceanographic and Meteorological Laboratory
ARD	Assessment and Restoration Division
DAA	Deputy Assistant Administrator
DHS	Department of Homeland Security
DRC	Disaster Response Center
ERD	Emergency Response Division
ERMA	Emergency Response Management Application
FEMA	Federal Emergency Management Agency
HSPO	Homeland Security Program Office
IP	Improvement Plan
LO	Line Office
MDD	Marine Debris Division
NCCOS	National Centers for Coastal Ocean Service
NESDIS	National Environmental Satellite, Data, and Information Service
NGS	National Geodetic Survey
NMFS	National Marine Fisheries Service
NOAA	National Oceanographic and Atmospheric Administration
NOS	National Ocean Service
NRAD	NOAA Response Asset Directory
NWS	National Weather Service
OAR	Office of Oceanic and Atmospheric Research
OCM	Office for Coastal Management
OCS	Office of Coast Survey
ONMS	Office of National Marine Sanctuaries
ORR	Office of Response and Restoration
SECART	Southeast and Caribbean Regional Collaboration Team
SECOORA	Southeast Coastal Ocean Observing Regional Association
SERO	Southeast Regional Office
SMT	Senior Management Team
USACE	United States Army Corps of Engineers
USCG	United States Coast Guard
WebEOC	Web-based Emergency Operations Center