

MES Annual Meeting Notes – Aug. 19, 2019

Work Plan Discussion:

Maritime-

- Maritime Guidance Website prototype
 - On Google -(<https://sites.google.com/view/tsunami-maritime-guidance/home>)
 - Intro
 - Hazard Analysis
 - Describes hazard in various areas
 - Offshore safe depth
 - Response and Ex
 - For Emergency Mangers, CG, responders
 - Linkages to TsunamiReady with maritime considerations
 - Preparedness
 - For Emergency managers, harbor operators
 - Linked to TsunamiReady
 - Outreach
 - Mitigation plans
 - Recovery
 - TsunamiReady tie 2 requires mitigation and debris plan
 - Boating community
 - Focus on audience of vessel captains and owners
 - Resources
 - Doc/reports
 - Partner links
 - Administrator – CalOES
 - Could be integrated in NWS/Tsunami NTHMP – continued discussion (Lopes learned later – this website *cannot* be integrated into the NTHMP website, but it can be linked from the NTHMP website to it. The main reason is that NWS HQ does not have the capacity to keep this site updated or maintained and can't take it on as a new requirement.)
 - Linking not duplicating info
 - Discussion
 - Collapse links on front page
 - Gaps with Maritime groups (USCG, Navy, Ports, etc.) and how to respond and communicate during an event
 - Continue to work with Coast Guard and lots of discussion with groups
 - What are Navy/Coast Guard doing during CSZ? Possibly add a template on what you know about your stakeholders on how decisions made.
 - Would you see benefit linking to TsunamiZone.
 - Positives for California which uses the site currently
 - Easy to be user managed, linking is good, this sets a precedent
 - Not put all of site on TZ, but a solid link/page to help promote
 - Maintenance, flexibility, searchability and upkeep of site and data important to the group.

Mitigation & Recovery Workgroup–

Maritime Mitigation Focus Group

Solicit outside expertise, provide information to NTHMP stake holders, coordinated work to meet 2018 Strategic Plan

Year 1 Priority – Maritime Mitigation

Future M&R work: ASCE/Building Code/state-level mitigation strategies and PTHA works, TsunamiReady Tier 2, Debris plan guidance.

Initial workgroup calls brainstormed issues and needs based on regional and national levels, providing webinars, 3-tiered approach, SAFRR scenarios, how to message.

Products developed include Mitigation & Recovery measures, actions, and partner resources tables, TsunamiReady criteria maritime strategy table, and others.

Discussion: Tsunami Mitigation/Recovery Resources – economic plans are not identified, port-specific projects and plans could be beneficial, etc we might want to look at. Looking at resources to provide stakeholders on the how to do the process.

Ports (if public or quasi-governmental) can be subaward partners to a state under NOAA/NWS Grants. Invite AAPA-ports.org, climate adaptation and how ports are addressing sea-level rise and how to leverage the discussion with tsunamis and mitigation.

Social Science – Areas of study: Five, WA/Lincoln City, OR/Eureka, CA

Draft data presented and discussed.

- A. Community survey results (see presentation for survey questions and responses):
 1. Low response rate from communities
 2. Questionnaire missing some key areas of interest (i.e. wireless emergency alert)
 3. Additional review of survey responses needed to fully understand data/results
 4. Identified target topics and locations for enhanced outreach
 5. Community notification important
- B. Final report: anticipated in October/November 2019
- C. Additional discussion:
 1. Reach out to rei (retail store) to partner with community preparedness
 2. Future MES discussion: process of conducting social science project and lessons learned

Tsunami Zone –

- A. MES Subcommittee toured website – displayed California page as sample state webpage
 1. Each state limited to single page
- B. State webpages under development:
 1. Alaska
Hawaii
 2. Washington
- C. Future updates:
 1. U.S. Virgin Islands – request individual webpage (separate from Caribbean page)
 2. Add links to additional resources
 3. The NWS would like to see expanded usage of website – include additional NTHMP partners
 4. Increase mobile capability of website

- D. Additional discussion:
1. Washington developing multi-hazard guidance for evacuation drills (link on TsunamiZone.Org)
 2. Oregon developed community-based tsunami walk guide
 3. Why we don't combine Shake Out and Tsunami Zone? How many in ShakeOut – 63.5M, 20M in US - TsunamiZone – CA 343,000 - Has been looked at it the past but didn't seem appropriate.

HAZUS:

California, East Coast & Oregon are doing HAZUS Tsunami assessments under FY19 NOAA grants. Each presented its deliverables and planning assumptions. Will present findings next year on work completed.

Coastal Flood Exposure Viewer:

Discussion and presentation on new NOAA coastal viewer with updates to the West Coast and Tsunami Data. Tool for community-based approach to assessing coastal flood exposure risks and vulnerabilities Expanded to West Coast in March 2019 (Alaska not included)

Website updated annually – could schedule additional updates if needed (i.e. – inundation map updates)

- A. Website Tour: - one of top 5 tools
1. Website address:
<https://coast.noaa.gov/floodexposure/>
 2. Provides Various Layers of Detail
 3. Inundation data provided by NTHMP partners
 4. Capabilities:
 - a. Save and store maps
 - b. Export map, map & legend, map & title, or all 3
 - c. Export multiple maps
 - d. Share maps with others via email (sends map URL)

Discussion:

- a. Provide link to hazard mitigation plans to illustrate plans to address flood risk shown in maps
Response: site geared toward emergency management – could incorporate examples of mitigation efforts in case studies section of website
- b. are there concerns regarding competing data/data sources? (i.e. – local jurisdictions, subject matter experts)
response: code used in data development on website shared with partners to maintain data specific to the jurisdiction

FEMA NDPTC Tsunami Awareness: NDPTC has submitted updates to FEMA. NDPTC will submit updates/changes that were submitted to the MES cochairs.

Background of training course development and delivery provided by NOAA/NWS and FEMA National Disaster Preparedness Training Center (Hawaii) in process of updating training course

1. Re-certification required every 3 years (can make small tweaks to content between updates)
 - a. Latest statistics
 - b. Recent events
 - c. New data and materials

2. Course update includes:
 - a. Outreach
 - b. Tsunami bulletins
 - c. Exercises (Lantex, Pacifex)
3. instructors do not need to re-certify
4. update status: currently in FEMA review – approval expected within next couple months
 - a. Reviewed by 3rd party content subject matter experts
 - b. Reviewed for 508 compliance (accessibility for persons with disabilities)
 - c. FEMA will send current draft to NWS for distribution to MES Co-chairs for review/comment

discussion:

1. U.S. Virgin Islands requested addition of CaribeWave scenario to exercise section of the training course
 - a. Increase applicability to jurisdiction
 - b. Enhance training experience
 - c. Suggested change will be sent to NDPTC for review
2. What were major changes to course?
Response: none, updates to graphics, exercise scenarios, content

TsunamiReady: Program Established in 2001
195 TsunamiReady Locations

TsunamiReady discussion objectives:

1. how NTHMP partners can collaborate with NWS Warning Coordination Meteorologists (WCMs)
2. NTHMP seeking feedback for NWS update to its TsunamiReady Directive
- A. Puerto Rico (PR) presentation:
 1. 49 TsunamiReady communities (cities/municipalities)
 - a. 46 PR
 - b. 3 U.S. Virgin Islands
 - c. 10 TsunamiReady supporters
 2. Highest threat – local sources (5 minute travel time)
 3. Tsunami plan – annex to multi-hazard plan
 4. Strong partnership and outreach program
 - a. Actively seek opportunities for tsunami education
 1. Outreach events for other hazards including earthquake and hurricane
 2. Provide materials and signage to communities
 - b. Partner with FEMA, WCM, Local Emergency Managers, PR Emergency Management Agency
 - c. One required training each year for community emergency managers
 - d. Social media and media interviews
 5. TsunamiReady Process:
 - a. PR TsunamiReady Model:
 1. Successful TsunamiReady Program requires a team/partnership
 2. Not possible for WCM to do alone
 - b. PR established a team (2 full time dedicated grant-funded staff members) to implement PR TsunamiReady Program
 1. WCM, PR Seismic Network (University), PR Emergency Management Agency (Science, Emergency Management, Outreach and Education)
 2. Partnership throughout entire process
 - c. 9-Step Process

1. Step 1: Letter sent to emergency manager & letter sent to mayor
2. Conduct initial meeting with local emergency manager in jurisdiction to explain process, importance, and what needs to be done (process includes minimum of 2 visits)
3. TsunamiReady team provides on-going guidance and assistance to local emergency manager end-to-end
 - d. Constant communication
 - e. Workshops/trainings
 - f. Templates/draft documents
4. Continuous communication with emergency operations center (EOC) personnel
 - a. Provide evacuation maps
 - b. Inventories, plans, profiles
 - c. Assist with documents
5. visit to tsunami warning focal point and EOC
6. provide support to tsunami warning focal point and EOC personnel
7. workshop for EOC and municipality personnel
 - a. phone tree
 - b. tsunami sign plan
 - c. tsunami evacuation map/update
 - d. outreach assistance
8. EOC personnel required to visit national weather service facilities
9. TsunamiReady committee (team) visits municipality for evaluation and recognition approval – WCM signs-off
- d. propose to distinguish community leaders as “TsunamiReady Champions”
 1. WCM has authority to nominate TsunamiReady Champions
- e. TsunamiReady schedule: 16 communities each year
- f. Challenges:
 1. Competing priorities
 2. Lack of interest in some locations
 - Public engaged in some communities - push for municipality to maintain TsunamiReady recognition
 - Educate emergency managers on program

TsunamiReady discussion:

1. Challenge in California (San Francisco bay area)
 - a. Travel time/traffic
 - b. Staffing – no full-time personnel to dedicate to TsunamiReady
 - c. Local/state/federal competing priorities
 - d. Turnover

Lopes noted that these challenges are present in every NWS WFO and all others seem to be able to maintain TR recognitions. NWS Monterey is the only WFO that has lost 6 out of 21 TR recognitions this fiscal year.
2. Remote verification allowable, not ideal
 - a. Look at possibility to update TR Directive to clarify language regarding remote verification/recognition
3. NWS - Site visit important to illustrate importance of program
4. Renewal schedule – keep at every 3 years or longer? Coordinate with StormReady?

Lopes: most TR communities are also recognized as StormReady, so renewal periods for each program should be the same.
5. International “Tsunami Ready” program growing – renewal every 4 years
6. NWS – TsunamiReady Program important – metric used to measure national readiness – Congress is looking at this program

7. 9 tsunamiready communities were retired in the last year
 - a. Remain in queue for 1-year past expiration
 - b. Suggestion: make TsunamiReady and storm ready applications similar to ease application process for locals
 - c. Suggestion: tie signage and kiosk support to TsunamiReady and/or TsunamiReady renewal process

Vertical Evacuation and model practices

Project Safe Haven – Washington 2010-2011

- Looked at high risk areas
- Berms, towers, retrofit
 - Ocosta elementary school
 - 1st vertical evacuation structure in United States
 - 1,000 person capacity
 - Funded by local bond
 - Shoalwater Bay Tribe
 - Proposed evacuation tower
 - If funded, will be first hazard mitigation program grant funded vertical evacuation structure - \$2.2 million
 - Impoverished community – grant requires 10% match
 - 400 person capacity

Washington developed: manual for tsunami vertical evacuation structures – NOAA/NWS grant funded

- Funding for structures a challenge
- Communities can get advance funding to complete application
- Next step: look at tsunami vertical evacuation structure gap assessment
 - a. Requested 2019 NOAA/NWS grant funding

Evacuation route hardening

- Washington looking at route structures that may be impacted by ground shaking
 - Process to gain community support:
 - Tsunami road show
 - Provided support throughout process – packaged process
 - Incorporate peer-review into process (science, design and project)
- Oregon – focus on hardening routes
 - DOGAMI support with “Beat The Wave” evacuation route mapping
 - Prioritized routes to safety – South Bay, Newport, Oregon
 - a. 20-30 minutes to walk to higher ground
 - b. Identified high ground within community
 - c. Conducted geotechnical studies on hill and strengthened
 - d. Developed 3 routes to hill top (safe haven)
 - Steep, fast route
 - Windy route around hill – less steep
 - ADA compliant route
 - e. Incorporated interpretive signs along route with time to safety information – funded by NOAA/NWS Grants
 - f. Caches of resources in park with lights on hill top

NTHMP Subcommittee Structure and Workload Analysis

- A. Discussion Thursday afternoon
- B. Includes:
 1. Historical information
 2. Strengths and weaknesses

- a. Participation
 - b. Learning curve
- C. Discussion to focus on:
 - 1. What works/doesn't work
 - 2. Solutions
 - 3. Suggestions