

Notes and Actions Items from the Second Meeting of the NTHMP Tsunami Warning Coordination Subcommittee

October 31, 2006; Silver Spring, MD

Paul Whitmore – Subcommittee Chairperson - NOAA/NWS/West Coast and Alaska Tsunami Warning Center

Action Item Review:

- Reviewed action items from the initial meeting of the working group on January 30, 2006.
- All completed except two (Implement Arctic Ocean procedures and add new travel time points to Pacific list – both are ongoing).
- The following are comments regarding specific action items:
 - Item 3 – The previous 5 types of messages were condensed to four. These could be further condensed to three; or could be left as is. Item was further discussed during Product Review below.
 - Item 5 – Earthquake depth has been added to the WCATWC messages. Led to a discussion on the pros and cons of including depth. Since WCATWC messages get widespread world-wide distribution, distances should be listed in both miles and kilometers.
 - Item 9 – Watch definition may need to be reworded in products and web site to include watches as used in the Indian Ocean and Caribbean Sea. **Action: Review Watch definitions in products and web site to ensure consistency with other international regions that use watches.**
 - Item 14 – The product wording review team held two meetings and work has been completed. PTWC will use output from this group to guide public products for Hawaii.
 - Item 15 – For magnitude 7.6-7.8 quakes, the 3 hour warning/3 hour watch has been replaced with a warning only for an area to the nearest breakpoint beyond 1000km from the epicenter.
 - Item 21 – A joint end-to-end communications test will be conducted on March 28, 2007 with Alaska and several counties in northern California.
 - Jeff Lorens stated that California OEM requested tests with EAS activation using live tsunami warning codes.
 - Negotiating who issues press releases – getting media involved is a problem.
 - Alaska stated that they have good support of their end-to-end tests from the media.
 - Hawaii tests tsunami sirens monthly – did not conduct an end-to-end test last year due to floods.
 - Jeff Lorens will keep Hawaii in the loop regarding the next test (March 28, 2006). British Columbia is also in the loop for the test.
 - Emergency Activation System (EAS) does not have a programmed message stating “this is a test” which is causing media pushback. Same problem with EAS for the radio systems.
 - Can a test message be developed for the EAS system? EAS programmers need to come up with a fix. Also wanted to know if this was also a problem with NOAA weather radio. This is not a problem with NWR.

Tsunami Product Review:

- Tsunami Advisories:
 - Advisories issued so far by the TWCs are not much different from information statements.
 - Some felt the fewer the message types the better.
 - Advisories have a different meaning in USGS products.
 - During Mt St Helens eruptions, NWS issues Volcanic Ash advisories for eruptions that eject ash into the atmosphere
 - NWS Western Region stated that their customers felt the information in the advisories was useful.
 - Tsunami message ordering (Warning, watch, advisory, information) is different from weather service messages for storms, etc.
 - PTWC said that the issue of nomenclature (Warning, watch, advisory) should be raised internationally since these should be consistent worldwide and that this is now being discussed in international working groups.
 - Pacific Region director stated that this topic (message types) has been around for four years. Maybe should start from scratch and define the user requirements.
 - Need to be careful changing products since a change can cause more problems.

- Summary statement - can't always link to NWS products since tsunami warnings are different than weather warnings.
- **Action: Convene team with same participants from last year's product working team to re-examine message types - Melinda Hinojosa will lead group. ITIC representative will be added to group.**
- Other tsunami product items:
 - Discussion on feedback from bulletin issued for Hawaii earthquake. Many people did not get word that a tsunami would not occur.
 - Add metric distances to products (i.e. km in parenthesis). Currently using miles. **Action: Add km in parenthesis when distance (or depth) is given in miles.**
 - Tim Rulon brought up that TWC products should include VTEC and UGC codes. **Action: Tim will work with TWCs to add VTEC codes and UGCs as necessary.**
 - Wave arrival information in advisories can lead to confusion as advisories normally indicate there is no threat. **Action: WCATWC will remove ETAs from advisories but will keep ETAs on web site available through a link.**
 - Wave height reporting not consistent between centers. **Action: WCATWC and PTWC will coordinate on wave height reporting format and report in a consistent manner in products.**
- Graphical Products:
 - New WCATWC graphical products are on web site and are available through CISNDisplay. **Action: Display hyper-linked maps in new browser window.**
 - WCATWC uses private internet server farm run by Akamai to serve web site.
 - RSS feeds available.
 - TWCs working to improve CAP/XML product.

Overview of Washington State Evacuation Notices – George Crawford:

- Evacuation decision is now made at the state level; not local.
- Warning message has been pre-recorded and does not say evacuate.
- Planning to test the system monthly on the same date.
- State message backs up the NOAA message and unifies the state systems.
- Trying to get away from evacuations dependent on vehicles.
 - Establishing assembly areas.
 - Looking at Japanese process.

Procedures:

- Reviewed procedural changes since last year.
- GAO study recommended that TWC review warning criteria with external reviewers. **Action: Convene warning criteria review panel for WCATWC Pacific and Atlantic AORs.**

TWC Network Improvements:

- Pacific NOS tide gages upgraded to 6 minute transmission interval with 1 minute sample rate data.
- Atlantic NOS gages to be upgraded by 2007.
- DART network upgraded to 19 units:
 - Alaska – 7
 - West Coast – 5
 - Hawaii – 1
 - Atlantic – 3
 - Caribbean – 1
 - Gulf of Mexico – 1
 - East-central Pacific – 1
- 15 new NOS tide gauges

- West Coast - 4
- Alaska – 5
- Puerto Rico/Virgin Islands – 6
- 4 new WCATWC tide gauges.

Oregon Uniform Tsunami Warning Signal – Jay Wilson

- In 2005, State Senate Bill 557 established a uniform standard for siren signal duration, volume and device location.
- Uniform testing of the system.
- OEM website contains electronic versions of FEMA guidance as well as OEM guidance.
- Jay also indicated that the resolution of the Oregon Uniform Tsunami Warning System is being delayed by DHS' current review/upgrade of National EAS.

Customer Feedback – Dave Soroka, Tyree Wilde, Jeff Lorens:

- Useful if watch and warning products looked different from bulletins and advisories.
- Verbiage in products can still be confusing.
 - **Action: PTWC to add countries in which the warning is cancelled in cancellation headline.**
 - **Action: WCATWC to add warning criteria link to message definitions.**
- Overall systems are working well.
 - Monthly tests worthwhile.
 - **Action: NWS should work to identify and decrease amount of NWR quiet zones along the Pacific, Caribbean and Atlantic coasts.**
- Exploit communications technology
 - Use existing private industry sites to push information
 - Emergencymail.org
 - Stormwatch
- Would like to see combined Pacific Basin/US tests and exercises.
- Need standardized siren tones.
- Possibly establish a tsunami awareness week in conjunction with annual test.

Other Items:

- George Crawford stated there are TsunamiReady areas in that can not receive NOAA weather radio.
- Laura Furgione to work with John McNulty to examine expansion for coastal regions that do not have coverage (Action 11).

Participants:

Chris Maier	NWS HQ WCM	301-717-3704	chris.maier@noaa.gov
Dan Noah	NWS WCM Tampa WFO	813-645-2323	daniel.noah@noaa.gov
Melinda Hinojosa	NWS Southern Region	817-978-1100x107	melinda.hinojosa@noaa.gov
Paula Dunbar	NOAA, NGDC	303-497-6084	paula.dunbar@noaa.gov
Susan McLean	NOAA, NGDC	303-497-6478	Susan.McLean@noaa.gov
George Priest	State of Oregon	541-574-6642	george.priest@dogami.state.or.us
Rob Witter	State of Oregon	541-574-6642	rob.witter@dogami.state.or.us
Jay Wilson	State of Oregon	503-378-2911	jm.wilson@oem.state.or.us
Chris Jonientz-Trisler	FEMA	425-487-4645	chris.jonientztrisler@dhs.gov
Tyree Wilde	NWS WCM Portland WFO	503-326-2340x223	tyree.wilde@noaa.gov
Thomas LeBlanc	State of Texas	512-424-7501	Thomas.LeBlanc@txops.state.tx.us
Don Miller	NWS Eastern Region	631-244-6122	donald.J.miller@noaa.gov
Paul Whitmore	NOAA, WC/ATWC	917-745-4212	paul.whitmore@noaa.gov

Jeff Lorens	NWS Western Region	801-524-4000	jeffrey.lorens@noaa.gov
Laura Furgione	NWS, Alaska Region	907-271-5186	laura.furgione@noaa.gov
Jeanne Johnston	State of Hawaii	808-733-4301x552	jjohnston@scd.hawaii.gov
Walt Dudley	State of Hawaii	808-640-8131	dudley@hawaii.edu
Chip McCreery	NOAA, PTWC	808-869-8207	charles.mccreery@noaa.gov
Roger Hansen	State of Alaska	907-474-5533	roger@giseis.alaska.edu
Jeff LaDouce	NWS, Pacific Region	808-532-6416	Jeff.LaDouce@noaa.gov
Jim Goltz	State of California	626-356-3810	jim.goltz@oes.ca.gov
Rich Eisner	State of California	510-286-0688	rich.eisner@oes.ca.gov
Joel Cline	NWS, Pacific Region	808-282-4538	joel.cline@noaa.gov
Tim Walsh	State of Washington	360-902-1432	tim.walsh@wadnr.gov
Rod Combellick	State of Alaska	907-451-5007	rod@dnr.state.ak.us
George Crawford	State of Washington	253-512-7067	g.crawford@emd.wa.gov
Christa von Hillebrandt	Puerto Rico	787-833-8433	christa@midas.uprm.edu
Scott Simmons	State of Alaska	800-478-2337	scott.simmons@ak.prepared.com
Jenifer Rhoades	NWS HQ	301-713-1975x173	jenifer.rhoades@noaa.gov
David Green	NWS HQ	301-713-1975	david.green@noaa.gov
David Soroka	NWS, WCM Monterey WFO	831-656-1710x223	david.soroka@noaa.gov
Ervin Petty	State of Alaska	800-478-2337	evern.petty@ak.prepared.com
Leo Espia	Guam	671-475-9600	lespia@guamhs.org
David Adler	Department of Commerce	301-713-3557x159	david.adler@noaa.gov
Bryan Fisher	State of Alaska	907-428-7096	b.fisher@ak.prepared.com
Tim Rulon	NOAA	301-713-1677x128	tim.rulon@noaa.gov