

January, 2017

NTHMP

Warning Coordination
Subcommittee Meeting

Agenda

- Introductions
- WCS
 - 2016-Action Item Review
 - Strategic Plan Tasks and inputs for new plan
- 2016 tsunami events of note
 - New Zealand
 - Solomon Islands
- TWC Products
 - 2016 Updates and Feedback
 - ***SPN product header change
 - Potential changes for 2017
 - EAS activation for advisories
 - NWS WR Auto EAS Update
 - WEA activations for distant events based on Warning
 - NTWC Conference Calls for Potential Danger events
 - NTWC No Potential Danger Info Statements – warning about increase magnitude?
 - Facebook postings

Agenda

- Web Site
 - Combined web site features and feedback
 - Tview demonstration and status
 - Evacuation Lines – CA Playbooks?
 - Consistent color maps with state work?
 - Observatory Messages – post on tsunami.gov
 - Use of CISNDisplay for OMs
- Exercises
 - Monthly Comms tests and false alarms
 - 2017 National exercises
 - 2017 ETE Comms tests
 - Others?
 - Use World TAW as unified date for US exercises?
 - 2018 plans
 - Catalog of tsunami scenarios
 - Exercise development

Agenda

- Training
 - NTWC TWS training plans
- IT Mod. Update
- WCS co-Chair Election and RoP approval
- New Action Items and New Strategic Plan Options
- TRAC Update
- Review Team Questions

Reviews

- Action Item Review
- WCS Strategic Plan Tasks
 - Inputs for next plan
 - Consider these during meeting and we'll revisit at end

2016 Events of Interest

- McCreery

Significant Events Since Last NTHMP Meeting

Date	Place	Mw Initial	Mw CMT	Mw USGS	International	Domestic
04/03/16	Vanuatu	7.2	6.9	6.9	Threat	
04/16/16	Ecuador	7.4	7.7	7.8	Threat	
04/28/16	Vanuatu	7.3	7.0	7.0	Threat	
08/12/16	Loyalty Is.	7.6	7.2	7.2	Threat	
09/01/16	New Zealand	7.2	7.0	7.0	Information	
11/13/16	New Zealand	7.4	7.9	7.8	Information	
11/21/16	Japan	7.3	6.9	6.9	Threat	
11/24/16	Central America	7.2	7.0	6.9	Threat	
12/08/16	Solomon	8.0	7.8	7.8	Threat	HI: Watch
12/09/16	Solomon	7.0	7.0	6.9	Threat	
12/17/16	New Ireland	8.0	7.9	7.9	Threat	
12/25/16	Chile	7.7	7.7	7.6	Threat	
01/03/17	Fiji	7.2	7.0	6.9	Threat	
01/22/17	New Guinea	8.1	7.9	7.9	Threat	

- Typical annual number of events
- Mw (CMT) in 20 minutes is very good

Some Notable Challenges

Date	Place	Mw Initial	Mw CMT	Mw USGS	International	Domestic
09/01/16	New Zealand	7.2	7.0	7.0	Information	
Earthquake depth initially overestimated , small tsunami observed						
11/13/16	New Zealand	7.4	7.9	7.8	Information	
Epicenter on land, complex rupture, delayed rupture, tsunami > 1m New Zealand Response Issues						
11/21/16	Japan	7.3	6.9	6.9	Threat	
Tsunami > in Japan is larger than expected for Mw 6.9						
12/08/16	Solomon	8.0	7.8	7.8	Threat	HI: Watch
Challenges with Immediate Watch for Hawaii						
01/03/17	Fiji	7.2	7.0	6.9	Threat	
Small Tsunami but Fiji Response Issues						
01/22/17	New Guinea	8.1	7.9	7.9	Threat	
Epicenter depth > 100km but small tsunami generated						

Lessons Learned (or reminded about)

- No magic magnitude / depth / location threshold for tsunami generation.
- Tsunami generation depends upon the complex time and space characteristics of the rupture which are (currently*) not estimated quickly.
- TWC procedures are designed to be conservative to allow for uncertainties.
- TWC alerts and forecasts likely to be least accurate for the local tsunami.
- Coastal communities with a local tsunami threat should design tsunami education and response procedures with this in mind.

TWC Text Products – 2016 updates

- Removal of EQI (SE**) products
 - Combined with TIB products for simplicity
- NTWC messages now in mixed case
 - Upper and Lower case with punctuation
- PTWC PR/VI products
 - Active when AOR changes takes place
- ***SPN product update
 - Spanish products headers now synched up with others – not implemented yet

*****SPN Product Header Changes**

- Existing NTWC and initially proposed PTWC AWIPS Identifiers for Spanish-language text products were ambiguous (i.e., the same identifier for different products).
- New AWIPS IDs will be assigned and announced in an NWS Service Change Notice prior to the transition of the Puerto Rico and Virgin Island products from NTWC to PTWC.

TWC Text Products – 2017 possibilities

- N. California zones and breakpoints
 - Added new breakpoints at
 - Hum/Mendo County Line,
 - Cape Mendocino, and
 - Hum/DelNorte County Line
- Minor text updates and clarifications for NTWC messages
- PTWC Updates

Planned Upcoming TWC Product Changes

- Merge of NTWC and PTWC websites under “tsunami.gov” (addressed in more detail in a later agenda item). Target date of March 1, 2017.
- Transition of the domestic Puerto Rico and Virgin Island products from NTWC to PTWC. (to follow shortly after website goes live)
- Complete Social Science recommendations in PTWC domestic (and international?) products.
- NTWC Products - Minimal Changes

Products

- EAS for Advisory Status
 - Consider dropping as an action???
- TsunamiEAS at WFOs - JL
- WEA Polygon Status
 - Action stuck at NWS HQ
 - Presently entire zone will activate WEA
- Distant WEAs and early alert
- Twitter products – add hash tags

Products

- NTWC Conference Calls for Potential Danger Information Statements
 - Should they be held???
- Should NTWC Tsunami Information Statements which do not have any expected danger have alert about possible update???
- Facebook Postings
 - TWC educational and operational posts
 - Should they be combined or separated to different sites

Combined TWC Web Site

- Overview of tsunami.gov
 - [Tsunami.gov](http://tsunami.gov)
 - Feedback
 - Should more earthquake information be posted
 - i.e., events which TWCs presently issue observatory messages which get VERY limited distribution and post to web
 - CISNDisplay status
 - Expected time line

Private forecast site – Tview

- Tview project overview
 - Tview - <https://nctr.pmel.noaa.gov/tview>
nctr/tsunami
 - Timeline to operations
 - Update to TWC software
 - Hosting environment
- Evacuation lines
 - Need from all states
- Consistent color maps for wave heights with state work???

Exercises

- Monthly Comms. Tests
 - False Alarms – recent
- 2017 Exercises - [Link to Plans](#)
 - CaribeWave17; March 21, 2017
 - Lantex17; March 22, 2017
 - Pacifex17; March 29, 2017
 - ITIC - Others???
- 2017 Communication Tests
 - Alaska
 - N. California
 - PR/USVI
 - Others???

Current PTWC Website

ptwc.weather.gov



NOAA's National Weather Service

Pacific Tsunami Warning Center

weather.gov



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[DOC](#) > [NOAA](#) > [NWS](#) > [PTWC](#)

Click on the tabs below to see tsunami messages relevant to each of PTWC's [areas of responsibility](#).

All Regions
Pacific Ocean
Hawaii
Caribbean Sea
Indian Ocean (discontinued)

Page last loaded at: Mon, 30 Jan 2017 17:58:45 UTC.

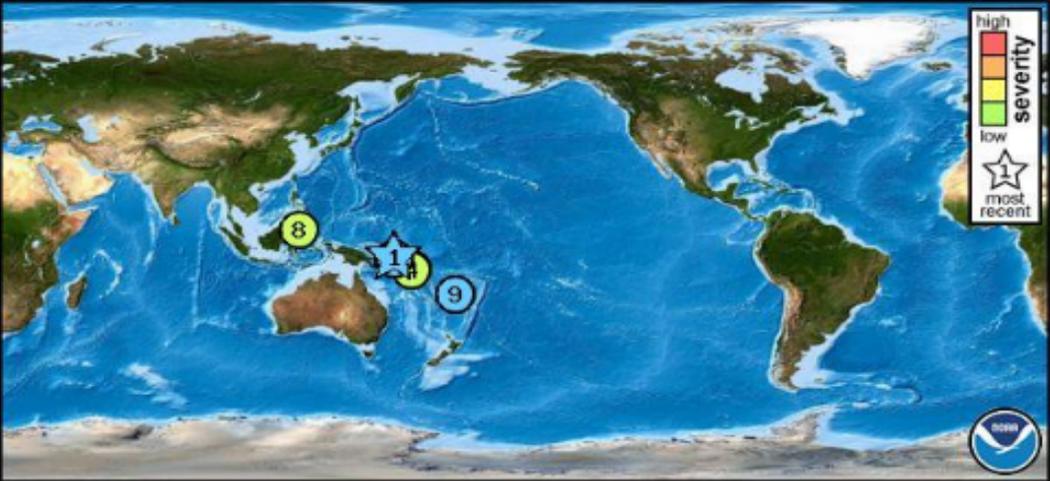


No Current Warning, Watch, or Advisory in Effect

Click here to read the latest tsunami message.

Tsunami Messages for All Regions (Past 30 days)

Click on the map or table below for more information.



high
low
severity
most recent

Image last created on Mon, 30 Jan 2017 17:58:22 UTC.

Time (UTC)	Region	Type	To:	Details
1	22 Jan 2017 08:41	Ptwc Final Threat Message	Pac	html , text
1	22 Jan 2017 05:41	Ptwc Threat Message	Pac	html , text
1	22 Jan 2017 05:03	Ptwc Threat Message	Pac	html , text
1	22 Jan 2017 04:48	Ptwc Threat Message	Pac	html , text
2	22 Jan 2017 04:41	Solomon Islands Information Statement	Haw	html , text
3	22 Jan 2017 04:38	Ptwc Threat Message	Pac	html , text
4	19 Jan 2017 23:11	Solomon Islands Information Statement	Haw	html , text
5	19 Jan 2017 23:11	Ptwc Information Statement	Pac	html , text
6	10 Jan 2017 15:35	Solomon Islands Information Statement	Haw	html , text

Local forecast by "City, St" or Zip Code

City, St

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Messages

SUBSCRIBE

Pacific Ocean

Hawaii

Caribbean Sea

Indian Ocean

About Messages

Recent Messages

WC/ATWC

Information

FAQ

Hawaii Residents

Tsunami Info Ctr

Tsunami Database

TsunamiReady

About PTWC

Responsibilities

History

Media & Visitor Info

Staff

Contact Us

Current US TWC Website (NTWC products only)

tsunami.gov

United States Department of Commerce NOAA / National Weather Service U.S. Tsunami Warning Centers National Tsunami Warning Center and Pacific Tsunami Warning Center

Home News Organization Search for: [] NWS All NOAA Search

Important Information: Pacific Tsunami Warning Center

No Warning, Advisory, Watch, or Threat
There is No Tsunami Warning, Advisory, Watch, or Threat in effect.

Earthquake: Magnitude: 4.8 Depth: 87 (Mi.) Location: 75 miles SW of Talkeetna, Alaska Origin Time: 1/28/2017, 4:28:13 AM Lat: 62° N Lon: 152.3° W

Note: Times are local to your browser, unless otherwise indicated

Alert Layer Earthquake Previous 40 Observations Forecasts Water-Level Stations DART Systems Travel Time

3000mi 2000mi Earthstar Geographics esri

Warning Advisory Watch Threat Earthquake

U.S / Canada International How to read this map More information about the earthquake

[Observations & Forecasts](#) [Energy Map](#) [Travel Time Map](#) [CAP File](#) [TEX File](#)

Previous 40 Tsunami Messages

TWC	Mag	Depth	Lat	Lon	Origin Time (GMT-10:00)	Location	M&G	English	Spanish
NTWC	4.6	87 (Mi.)	62° N	152.3° W	2017-01-26 14:26:13.0	75 miles SW of Talkeetna, Alaska	WEAKS3	1	1
NTWC	8	104.4 (Mi.)	6.1° S	155.2° E	2017-01-22 04:30:25.0	near the Solomon Islands	WEAKS3	1	1
NTWC	6.7	19.9 (Mi.)	10.7° S	161.4° E	2017-01-19 23:04:22.0	near the Solomon Islands	WEAKS3	1	1
NTWC	4.2	7.5 (Mi.)	56.1° N	136.9° W	2017-01-16 21:40:11.0	90 miles NW of Sitka, Alaska	WEAKS3	1	1

Merged US TWC Website

tsunami.gov

United States Department of Commerce

NOAA / National Weather Service
U.S. Tsunami Warning Centers
National Tsunami Warning Center and Pacific Tsunami Warning Center

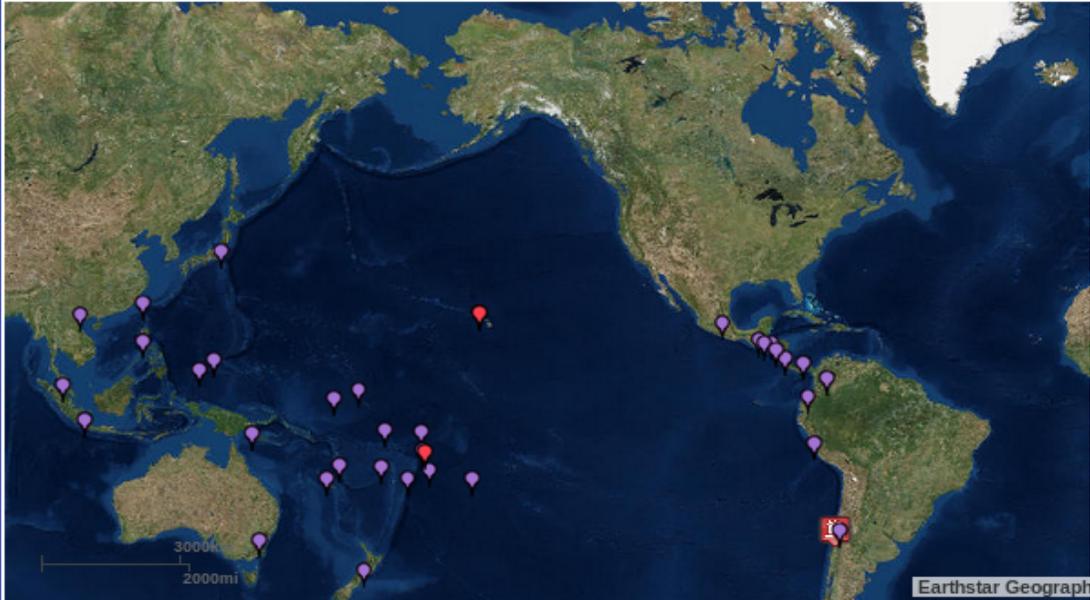
Home News Organization Search for: NWS

Warning Search

 **Earthquake:** **Magnitude:** 9 **Origin Time:** Fri 27 Jan 2017 16:30:00 PM UTC
Depth: 12.4 (Mi.) **Location:** NEAR THE COAST OF CENTRAL CHILE **Lat:** 32.3° S **Lon:** 71.9° W

Note: Times are local to your browser, unless otherwise indicated

Alerts/Threats Earthquakes
 Previous 40 Messages Observations Forecasts Water-Level Stations DART Systems Travel Time



Earthstar Geograph

Warning Advisory Watch Threat Earthquake

U.S / Canada International [More information about](#)

 Observations & Forecasts  Energy Map  Travel Time Map  CAP File  TEX File

 - 1-3 meters Papua New Guinea Issued at: Fri 27 Jan 2017 19:12:39 PM UTC
 - 0-0.3 meters Malaysia Issued at: Fri 27 Jan 2017 19:12:39 PM UTC
 - 1-3 meters Niue Issued at: Fri 27 Jan 2017 19:12:39 PM UTC

Exercises

- World Tsunami Awareness Day
 - Use this as future date for exercises???
 - Use this as future date for comms. tests???
- 2018 Exercises
 - Ideas and Times???

Training

- COMET On Line training – recently updated
 - Tsunamis!
 - Community Tsunami Preparedness – Oct. 28, 2015
 - Tsunami Warning Systems – Jan. 7, 2016
 - Tsunami Strike!
- NTWC TWS training; April 4-6, 2017 in Palmer, AK
 - Still a few slots open
- TWC state level support; e.g., Oregon workshop
- Others???

TWC TOPS Update

Procedural Stuff

- State WCS Co-chair election
- Approve update of Terms of Reference changes

Tsunami Research Adv. Comm.

- 2017 Projects
 - Ongoing
 - NCEI
 - Tsunami Database
 - Tsunami Tide Gage data control
 - DEM development – 4 for PMEL/TWC; 1 for Carib.
 - COMMIT – International Capacity Building
 - GPS Source/NASA
 - TView
 - DART4g - Chile
 - SIFT – Ongoing and upgrades

Tsunami Research Adv. Comm.

- 2017 Projects
 - New
 - HF Radar
 - Test new models for real time propagation model
 - Use new models for real-time runs and generating necessary data for inversion

New Actions

- Web Site
 - New procedure for more earthquake information to be posted???
- Establish date and scenario for 2018 Exercises
- Training?
- Tview

- Ideas for new Strategic Plan