



UNESCO/IOC – NOAA ITIC Training Program in Hawaii (ITP-TEWS Hawaii)
TSUNAMI EARLY WARNING SYSTEMS
AND THE PACIFIC TSUNAMI WARNING CENTER (PTWC) ENHANCED PRODUCTS
TSUNAMI EVACUATION PLANNING AND UNESCO IOC TSUNAMI READY PROGRAMME
15-26 September 2025, Honolulu, Hawaii

EHW-25

Exercise Hawaii Wave 2025

General Instruction

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EHW-25 Team (ITIC, PTWC, IOTIC)

EHW-25 EXPLAN

ITP-Hawaii 2025 Tsunami Exercise Exercise Hawaii Wave 2025 (EHW-25)

On 25 September, a Tsunami Exercise in 'real-time' will be conducted as part of the training workshop. The post-exercise evaluation will take place on 26 September through a 'Press Conference.' The aim of Exercise Hawaii Wave 2025 (EHW-25) is to provide participants the opportunity to demonstrate the knowledge obtained in the manner.

Participants will:

- Use and interpret PTWC tsunami products
- Apply a tsunami warning scenario to pre-developed time tables, checklists, and templates that constitute their SOI
- Identify and describe the individual actions taken by each tsunami warning
- Demonstrate the above through report-back at 'Press Conference'
- Receive comment from lecturers and peers on their report

Objectives:

- Exercise, evaluate, and improve TWC and TER local tsunami evacuation, focusing on actions taken within the first minute origin time, and at and after warning cancellation.
- Integrate tsunami warning decision support tools (e.g., C Monitoring web site, TTT, TsuCAT tsunami database, TTT threat assessment, monitoring, etc) into SOPs
- Integrate evacuation maps and associated procedures as

Assumptions:

- Each country is interested in enabling and improving own
- EHW-25 allows the opportunity to identify the best-practice experience, and then to test those SOPs.

Scope and Format

EHW-25 will be conducted as a modified functional exercise. September with Group actions and responses taking place in Group reporting orally on their response and evaluation the 'Press Conference' with media questions.

Discussion of the scenario and injects, and their responses representing the Tonga, New Zealand, and Chile national tsunami and local disaster management office (emergency management should take into account and apply the knowledge and prepared during the training to demonstrate an appropriate response to

Groups will represent and respond as a country according to is expected. The Groups will react, based on their pre-planned international/national/other information or injects starting immediately and continuing as a tsunami is confirmed and impacts the country

EXERCISE CONDUCT

Exercise Control

Exercise Controllers are ITIC, PTWC.

Simulators will represent persons or agencies for the exercise

ROLE

Government High-Level Official, National/Local Authority
Media (TV, Radio, etc)

Other Agencies, Private Sector (Hotels, Ports/Harbors, Power/Fuel, Transportation, etc)
Public (Schools, Hospitals, Residents, Surfers, etc)

TSP PTWC

All Other Stakeholders, Backup

Observers – ITIC, PTWC

Exercise Time

Universal Coordinated Time (UTC, or Zulu) will be used to conduct the exercise. The exercise will start at 0000 UTC. Exercise time will be approximately 2 hours from 1400 – 1600 local. If time is limited, the Controllers will have to advance time, or slow time to all injects.

- Time is logged as UTC
- Exercise Clock controlled Controller
- Shared with NTWC and TER Timekeepers (Google Meet)

PTWC Products

This event is comprised of 30 PTWC message products. To conduct EHW-25 in two hours and for it to be managed by the Controller. 19 messages will be skipped and cover the 26 hours of the event.

Message that are skipped and time advances will be informed

Post-Exercise Evaluation

EXERCISE FLOW, GROUPS, COUNTRY INFORMATION

Scenario – Products and General Timeline

For Exercise Hawaii Wave 2025, the source will be a local, regional or distant tsunami affecting the countries (Tonga, New Zealand, Chile). PTWC text messages will be provided to everyone (TWC, TER); PTWC enhanced products will be provided only to the TWCS – it is then the TWC's decision on whether to further distribute the products to the NDMO, other organizations, or the public. The Groups will represent and issue tsunami warning and safety information nationally or locally for this local event.

Each Group will follow an SOP based on the tsunami threat that is agreed by the group. The SOPs to be used are decided during the EHW-23 Preparation Session.

1. For EHW-25, we request one participant from each TER and TWC Group to volunteer their email address for use as the Communication Focal Point (CFP) for each Group
2. The TWCS will receive PTWC products from PTWC by email issued by the Exercise Controller.
3. The TWCS and TERs will receive tsunami information from the Exercise Controller.
4. The TWCS will follow the agreed SOP for their country.
5. The TERs will follow the agreed SOP for their country.

Messages

All EHW-25 communications and products are Message or by Hard Copy (some Inject messages)

- Inject Messages provide the PTWC products,
- Action Messages can inform (give out) information respond to inquiries or information requests
- Groups are in control of the timing of communications
- Possible communications (WhatsApp, Email)
 - TSP to TWC,
 - TWC to TER and vice versa,
 - TWC or TER to customers (public, media, media, high government officials, etc) and

Communication Methods

- Injects Messages will be from Exercise Controller
- Actions Messages by Countries will be by WhatsApp
 - To and From TWC and TER Groups (using WhatsApp)
 - To Exercise Controllers for other audience

WhatsApp Format

- Voice or Text or Graphics to designated phone number

EMAIL format

- Use the ACTIONS template for communication
- The template specifies TO, FROM, DATE/TIME, COMMUNICATION

Exercise Log

It's important log your actions in the EXERCISE LOG because the Controller will be aware of any Country interactions

Exercise Flow

The Exercise Flow will flow as follows:

After receiving an Inject, each Group should:

- Review inject
- Decide on the Action
- Take TWC and TER SOP action (issue action through phone call to designated entity phone number)
- Log Actions – electronic or hard copy
- Follow SOPs, e.g., that cover Who, What, When, How, Where
- Communicate information or action to stakeholders / agencies (government, etc)
- Include dissemination of alerts, public safety actions (evacuation) and/or me

Generalized scenario timeline:

1. Time 0 minutes: Hypothetical local earthquake occurs off a country's coastline strong ground shaking lasting between 1 to 2 minutes
2. Time A minutes after earthquake: Initial earthquake information, or outside of
3. Time B minutes: Initial PTWC products issued (text, graphics, tables)
4. Time C (10-45) minutes: initial waves arrive at coastline
5. Time D minutes: Initial sea level gauge readings received (Tide Tool or other confirming tsunami)
6. Time E minutes to hours: PTWC last forecast issued
7. Time F hours: Country warning cancellation
8. Time G hours: Country All-Clear for some communities

Exercise Groups

There will be Three (3) countries conducting the same Pacific scenario.

1. Tonga, affected by Local Tsunami
2. New Zealand, affected by Regional Tsunami
3. Chile affected by Distant Tsunami

EHW-25 EXPLAN - BRIEF

Exercise Hawaii Wave 2025 (EHW-25)

1. The scenario is from the Pacific
2. There will be Three (3) countries conducting the same scenario. The Countries are:
 - A. Tonga, affected by Local Tsunami
 - B. New Zealand, affected by Regional Tsunami
 - C. Chile, affected by Distant Tsunami
3. There will be Six (6) groups - Three (3) for TER and Three (3) for TWC.
Each Group will have of max 7 participants

Tonga	TER-A	TWC-A
New Zealand	TER-B	TWC-B
Chile	TER-C	TWC-C
4. Each Group will follow an SOP based on the tsunami threat that is agreed by the group.
The SOPs to be used are decided during the EHW-25 Preparation Session.
5. For EHW-25, we request one participant from each TER and TWC Group to volunteer their email address for use as the Communication Focal Point (CFP) for each Group
 - a. Email TER-A CFP:
 - b. Email TER-B CFP:
 - c. Email TER-C CFP:
 - d. Email TWC-A CFP:
 - e. Email TWC-B CFP:
 - f. Email TWC-C CFP:
6. The TWCs will receive tsunami information from PTWC by email (issued by Exercise Controller)
7. The TWCs will follow the agreed SOP for their action.
8. The TERs will follow the agreed SOP for their action.
9. All communications are called Messages and should be done by WhatsApp (Voice, Text), Email
Messages should be logged into the Exercise Event Log for reference in the Hotwash
All email communications should:
 - a. Use the email template for communication (to be shared).
The template specifies
TO, FROM, DATE/TIME, COMMUNICATION METHOD, SUBJECT, MESSAGE
 - b. CC the email of the controller: carolina.hincapie@noaa.govMessages can inform (give out) information, receive (take in) information, or respond to inquiries or information requests
Groups are in control of the timing of communications – when, to whom, and how
Possible communications could be from
 - TSP to TWC,
 - TWC to TER and vice versa,
 - TWC or TER to customers (public, media, special needs groups, stakeholders, media, high government officials, etc) and vice versa.

EXERCISE Hawaii Wave 2025 - Summary

- **Use and interpret PTWC products**
- **Apply a tsunami warning scenario to participant developed SOPs**
- **Describe actions taken by stakeholder agencies to tsunami warning**
- **Demonstrate knowledge through 'Press Conference'**
- **Receive comment from trainers and other participants**

EXERCISE EHW-25 - Activities

EHW-25 to simulate decision-making on

- ❑ Issuance of Warning, or not, and where
- ❑ Upgrade of Warning, or not
- ❑ Coastal evacuation of threatened communities
- ❑ Continue, Cancel, Downgrade Warning;
- ❑ Criteria for Search and Rescue, Public All-Clear

INJECTS AND ACTIONS:

- ❑ 0-60 min: EQ Monitoring and Early Source Characterization, TSP Forecasts, Threat decision-making, TER risk decision-making, alerting and evacuation
- ❑ Min - hrs: Wave arrival, Warning cancellation
- ❑ Hrs - days: TER Search-and-Rescue, Safe-to-Return

EXERCISE EHW-25 - Scope and Format

- **Conducted on Thursday, 25 September
Modified Functional (separate NTWC / TER)**
- **Real time, but Controllers can advance / slow clock**
- **3 sets of Country Groups (NTWC, TER):
Take action based on their SOPs**
 1. NTWC - Chile, NTWC/TER
 2. NTWC - New Zealand, NTWC/TER
 3. NTWC - Tonga, NTWC/TER
- **NTWC and TER physically separate**
 - Main conference room (3 TER/DMO, Controller, TSP, Media, Politician)
 - ITIC Library / Conference Room / Nearby room (3 NTWC, Others, Public)
 - Various locations – other entities (by phone only)

EHW-25 - Conduct

- **Exercise Begins 1400 local (000Z),
Ends 1600 local (0200Z)**
- **Source is local tsunami for Tonga, regional for New Zealand,
distant for Chile**
- **PTWC injects will be their tsunami bulletins**
- **Situation injects will be issued**
- **Each Group reviews injects, takes actions, and simulate
interactions between stakeholders, and/or through Controllers**
- **Each Group documents its actions and responses, reviews
its performance for report-back to Plenary through the Press
Conference (same day)**

EXERCISE CONTROL

- **Exercise Controllers will control the pace and can suspend or advance the exercise Clock.**
- **Controllers and Simulators act as any outside agencies and individuals (i.e. media, prime minister, etc.) not physically present in order to interact with TWC & DMO groups.**

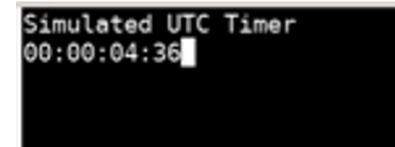
- **Controllers: ITIC, PTWC**

- **Simulators :**

ROLE	PERSON
Government High-Level Official, National/Local Authority	Stanley Goosby
Media (TV, Radio, etc)	Ardito Kodijat
Other Agencies, Private Sector (Hotels, Ports/Harbors, Power/Fuel, Transportation, etc)	Christa von Hillebrandt,
Public (Schools, Hospitals, Residents, Surfers, etc)	Marie Eble, PTWC
TSP PTWC	Chip McCreery
All Other Stakeholders, Backup	Laura Kong, Chip McCreery

- **Observers: ITIC, PTWC**

TIME



- ❑ Time is logged as UTC
- ❑ Exercise Clock controlled Controller
- ❑ Shared with NTWC and TER Timekeepers (Google Meet Invitation)
Summary
- ❑ This event requires 30 message,
- ❑ To make EHW-25 manageable, only 11 messages will be issued by the Controller
- ❑ 19 messages will be skipped and 8 Time Jumps will be done to cover the 26 hours of the event.

GUIDANCE

- **Each NTWC and TER/DMO is responsible for:**
 - MESSAGES THEY WILL ISSUE (CONTENT)
 - Controller will provide EQ parameters, Tsunami arrivals, expected heights, observations, other situation injects
 - WHEN MESSAGES ISSUED (HOW OFTEN)
- **Within each country, NTWC and TER/DMO communicate with each other / to their country**
- **National Agencies can contact other countries if they would like, especially if there are already pre-arranged information sharing agreements**

=> *USE TEMPLATES AND CHECKLISTS YOU DEVELOPED*

GROUND RULES

- **All communications are Messages that are delivered by**
 1. WhatsApp (Voice or message) to designated phone number, or
 2. EMAIL (PTWC Products) from Exercise Controller (Carolina Hincapie)
- **Countries should not Acknowledge PTWC message**
- **PTWC Text Products issued to everyone.**
PTWC Enhanced Products issued to NTWC only. It is up to the NTWC to decide which, if any, of products to issue to the DMO or to the public
- **Message standard format**
 - Includes: To, From, Time, Method, content
 - Method of communication could be: Telephone, radio, SMS, e-mail, satellite phones, WhatsApp, Twitter (X), other
- **Log Messages (electronic, paper)**

EXERCISE MESSAGES

**EXERCISE HAWAII WAVE 2025
THIS IS AN EXERCISE**

TO:

FROM:

TIME: UTC

METHOD:

MESSAGE:

EXERCISE MESSAGES

EXERCISE MESO AMERICA CARIBBEAN 2014 THIS IS AN EXERCISE

TO: TWFP

FROM: PTWC

TIME: 5 UTC

MESSAGE:

PTWC Message 1 for CARIBE-EWS

EXERCISE MESO AMERICA CARIBBEAN 2014 THIS IS AN EXERCISE

TO: COPECO TWC, COPECO DMO

FROM: Hospital Administrator

TIME: 15 UTC

MESSAGE:

Puerto Cortes Hospital Administrator calls. I heard there was a tsunami warning in Grand Cayman. Is there a warning here too? Our hospital has critical care patients. Do I have to evacuate them? When will the waves arrive?

EXERCISE LOG

EXERCISE HAWAII WAVE 2025 (EHW-25)
25 September 2025, Honolulu, Hawaii USA

LOG OF EVENTS

ORGANIZATION NAME _____

[illegible]

EVALUATION - Press Conference

- **26 September, 0900-0930, Rm 1377**
- **Preparation for Press Conference – today, after exercise to 1645 and tonight**
- **Press Conference – (30 min)**
 - 3 Country statements (NTWC and TER) – 8 min each
 - Media Question and Answer – 6 min
- **Group Statements should focus on**
 - What was supposed to happen
 - What went well – Sustainable
 - What needs work – Improvement
 - Did we accomplish our Goals?
 - What are your recommendations

EHW-25 Preparation – 0930 – 12 noon (and lunch)

□ **Meet in your Group**

- Review '*Tsunami Exercise Preparation Standard Operating Procedures (SOP) Checklists, Messages, and Communications*'
- Discuss and decide on SOPs
(both individual and together as 'country')
- Decide who will be Communications Focal Point
 1. Communication Focal Point (CFP) email addr
 2. Communication Focal Point (CFP) WHATSAPP
- Give CFP Information to Controllers (ITIC, PTWC)
- Decide who will log actions (ITIC)
- Decide who will do Press Conference (NTWC-TER)

□ **Be Ready!**

Tsunami Exercise Preparation

Tsunami Exercise Preparation Standard Operating Procedures (SOP) Checklists, Messages, and Communications

An Exercise should test the capabilities of earthquake and tsunami stakeholder agencies to respond to a damaging earthquake and/or tsunami. Agencies can ask themselves the following questions to judge their operational readiness.

Overall Questions:

- *When an earthquake and tsunami occurs, are you prepared to respond immediately? Do you have written SOPs for Duty Staff to follow?*
- *Do you have templates, or other pre-scripted communications to make your response faster and standardized?*
- *Have you educated your customers on what they should expect, when, and what they should do with the information you provide?*

Specific Questions:

1. For Tsunami Warning Centers (TWC), Disaster Management Offices (DMO), Media, What will you do when an EQ occurs?
How will you know how big it was and whether there was damage?
Who will you notify, how, and with what info?
How will you know if there is a tsunami?
If there is, what will you do?
Who will you notify, how, and with what info?
2. For TWC, after you issue a tsunami warning or alert,
What will you do? When will you cancel the warning?
Who will you notify, how, and with what info?

3. For Disaster Management Offices (national, local) and Other Response Agencies, after you receive a tsunami warning or alert: What will you do? Who will you notify, how, and with what info?
How do you decide if a evacuation should occur?
How do you inform people to evacuate, and what do you tell them?
4. For TWC, DMO, and Other Response Agencies,
 - a. What will you do if the public / media asks for information?
Who will handle this, and what information will be given (or not given)?
 - b. What will you do if high-level government officials ask for information?
Who will handle this, and what information will be given (or not given)?
 - c. Do you have a backup or contingency plan should your center become inoperable?
e.g., key official unreachable, computer systems broken, communications systems overloaded, normal power not available, building damaged or collapses.
5. For the Media and Public Information,
What is the minimum information you want for a tsunami event? From whom, when, how?
What is the ideal information you want for a tsunami event? From whom, when, how? What are your standards or protocols for ensuring accurate information?
After you receive a public / media alert from the Tsunami Warning Center or the Disaster Management Office, or receive information from other sources, will you issue the information immediately, how, and to whom?



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