

ITP-Hawaii 2023 Tsunami Exercise Exercise Hawaii Wave 2023 (EHW-23)

On 17 August, a Tsunami Exercise in 'real-time' will be conducted as part of the training workshop. The post-exercise evaluation will take place on 18 September through a 'Press Conference.' The aim of Exercise Hawaii Wave 2023 (EHW-23) is to provide participants the opportunity to demonstrate the knowledge obtained in the workshop in a practical manner.

Participants will:

- Use and interpret PTWC tsunami products
- Apply a tsunami warning scenario to pre-developed time lines, flowcharts, criteria action tables, checklists, and templates that constitute their SOP's for warning and evacuation.
- Identify and describe the individual actions taken by each stakeholder in response to the tsunami warning
- Demonstrate the above through report-back at 'Press Conference' to the plenary
- Receive comment from lecturers and peers on their reports

Objectives:

- Exercise, evaluate, and improve TWC and TER local tsunami SOPs, including evacuation, focusing on actions taken within the first 60 minutes after local earthquake origin time, and at and after warning cancellation.
- Integrate tsunami warning decision support tools (e.g., CISN, Tide Tool, IOC Sea Level Monitoring web site, TTT, TsuCAT tsunami database, TTT, your own tools for detection, threat assessment, monitoring, etc) into SOPs
- Integrate evacuation maps and associated procedures as part of the response

Assumptions:

- Each country is interested in enabling and improving own national SOPs
- EHW-23 allows the opportunity to identify the best-practice SOPs, using each country's experience, and then to test those SOPs.

Scope and Format

EHW-23 will be conducted as a modified functional exercise. It will take place on 17 August with Group actions and responses taking place in the afternoon in real, or near-real time, and the Group reporting orally on their response and evaluation in the morning of 18 August through a 'Press Conference' with media questions.

Discussion of the scenario and injects, and their responses will be conducted by Groups representing the Fiji, Samoa, and Tonga national tsunami warning center or national and local disaster management office (emergency management agency). Participants should take into account and apply the knowledge and preparation they have developed during the training to demonstrate an appropriate response to the scenario.

Groups will represent and respond as a country according to when the first-arriving tsunami is expected. The Groups will react, based on their pre-planned SOPs to international/national/other information or injects starting immediately after the earthquake and continuing as a tsunami is confirmed and impacts the coast. The scenario will be a Pacific scenario (earthquake parameters, tsunami predictions and observations) and be used by all Groups.

Groups will be separated physically and according to their 'country' and responsibility (NTWC or NDMO/TER) in order to simulate a realistic environment where face-to-face continuous interaction may not be possible. To communicate, Injects (PTWC products and situation injects) will be by email, and Actions communicated by PHONE and/or through Email between NTWC and TER Groups, or to the Exercise Controllers for other audiences

Groups should use the EHW-23 Preparation Session ([Thursday 1045-1200](#)) to discuss and decide on their SOPs, e.g., public/media information flow, and TWC or TER SOPs (criteria, timeline-driven activities, messages, checklists, templates, etc.). The developed SOPs do NOT have to follow the country's actual SOPs.

Exercise Participants

All participants in the training workshop will take part in the exercise. Participants will be divided into 2 sets of Groups representing NTWC and TER (DMO) agencies.

Exercise Control

Exercise Controllers are Laura Kong, Ardito Kodijat, Chip McCreery.

Simulators will represent persons or agencies for the exercise:

- TSP(s), NTWC-TER interaction – Chip McCreery, Stuart Weinstein
- Politician (National/Local Authority), High-government official – Stuart Weinstein
- Public – Tammy Fukuji, Ethan Hui
- Media – Ardito Kodijat
- Other agencies (such as Education, Ports/Harbors, Hotels, Power/Fuel...) – Carolina Hincapie Cardenas, Marie Eble
- All other stakeholders will be represented by the Controllers.
- Observers – Art Sonen, Desiree Bayouth Garcia, everyone

Exercise Time

Universal Coordinated Time (UTC, or Zulu) will be used to simplify discussion and action. The exercise will start at 0000 UTC. Exercise time will be projected on screen (actual exercise length will be 2 hours from 1400 – 1600 local). Because our exercise time is limited, the Controllers may have to advance time, or slow time, in order to give time to react to all injects.

Post-Exercise Evaluation

Evaluation will be in a 'Press Conference' where each Group (NTWC/TER-DMO) will provide the Exercise Statement summarizing its Actions, Issues, Challenges and Improvements. The 'Media', consisting of the trainers and participants, may ask questions and comment on the actions by each group. The quality and comprehensiveness of the report-backs will provide an over-all impression on the level of achievement by the groups, and identify areas needing improvement.

EXERCISE FLOW, GROUPS, COUNTRY INFORMATION

Scenario – Products and General Timeline

For Exercise Hawaii Wave 2023, the sources will be a local or regional tsunami near to the countries (Tonga, Fiji, Hawaii). PTWC text messages will be provided only to everyone (NTWC, TER); PTWC enhanced products will be provided only to the NTWCs – it is then the NTWC'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-23, 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 tsunami information from PTWC by email.
3. The TWCs will follow the agreed SOP for their action.
4. The TERs will follow the agreed SOP for their action.

Communications

- All communications and products are Messages that are delivered by
 - PHONE to designated number
 - EMAIL to designated email address and/or Controller (ter1exercise@gmail.com)
- EMAIL communications should:
 - Use the email template for communication (to be shared). The template specifies TO, FROM, DATE/TIME, COMMUNICATION METHOD, SUBJECT, MESSAGE
 - CC the email of the Controller: ter1exercise@gmail.com
- Communications 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 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, non- government)
- Include dissemination of alerts, public safety actions (evacuation) and/or media info

Generalized scenario timeline:

1. Time 0 minutes: Hypothetical local earthquake occurs off a country's coastline, with strong ground shaking lasting between 1 to 2 minutes
2. Time A minutes after earthquake: Initial earthquake information, or outside data received
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 means, 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. Fiji, affected by Local Tsunami
3. Hawaii affected by Regional Tsunami

Each Country will have 2 Groups, one representing the NTWC and the other the NDMO/TER (total six (6) groups - Three (3) for TER and Three (3) for TWC)

Each Group will have of 6 participants

Fiji	TER-1	TWC-1
Samoa Hawaii	TER-2	TWC-2
Tonga	TER-3	TWC-3

Location of Groups, Controller, and Simulators:

5. The three TERs will be working in Rm 1377.
6. The three TWCs will be working in ITIC Library, Conference Room, and nearby Conference Room on the 3rd Flr
7. The Controllers and PTWC, Political, Media will work in Rm 1377
8. Other Entities (Public, Other agencies, stakeholders etc) will work from ITIC or nearby conference room (Note the requirement to 'escort' foreign nationals)

Countries – TWC, TER/NDMO, Stakeholders and Customers

Group 1:

Fiji NTWC: MRD

Fiji TER: NDMO

Fiji Politician / High-Level Official: President H.E Ratu Wiliame Maivalili Katonivere, **Great Council of Chiefs** (apex of traditional Fijian leadership), Office of Prime Minister

Fiji Media: Fiji TV, Fiji Times newspaper

Fiji Other Agencies / NGO: Fiji Meteorological Services (Fiji Met), Itaukei Provincial Government, Red Cross, First Responders

Group 2:

Samoa NTWC: Samoa Meteorological Service (SMS)

Samoa TER: NDMO

Samoa Politician / High-Level Official: Prime Minister

Samoa Media: Samoa TV, Samoa Observer

Samoa Other Agencies / NGO: Aggie Grey's, Tanoa, Police, Fire, Ministry of Health, Red Cross

Group 3:

Tonga NTWC: Tonga Meteorological Services (TMS)

Tonga TER: NEMO

Tonga Politician / High-Level Official: Prime Minister Siaosi Sovaleni, King Tupou VI

Tonga Media: Tonga Broadcasting Corporation, Mataagi Tonga newspaper

Tonga Other Agencies / NGO: Geological Services, Land and Survey, Red Cross