

MARINE CORPS BASES HAWAII COMMUNITY BRIEFING ON TSUNAMIS



INSTALLATION PROTECTION



Purpose

- Provide you with information and understanding to be prepared for a Tsunami hitting the State of Hawaii.



How will we do this?

- **Understand the Elements of a Tsunami**
 - Different Types of Tsunamis
- Know what to do during a Tsunami
- How to be prepared
- No Question or Answer period out of courtesy of other's time



Understand the Elements of an Tsunami Before it Happens

- A Tsunami or tidal wave, is a **series** of waves caused by the displacement of a large volume of water, generally in an ocean.
- Earthquakes, volcanic eruptions, other underwater explosions, landslides, glacier calving, or meteorite impacts above or below water, all have the potential to generate a Tsunami.





Understand the Elements of an Tsunami Before it Happens

- A Tsunami can happen at any time.
- A Tsunami can reach a height of 100 feet (30 meters).
- A Tsunami can travel up to 500 mph.
- Multiple waves will impact the coastline
- Could take hours from when first wave arrives to “all clear”



Understand the Elements of an Tsunami Before it Happens

■ Different Types of Tsunami

■ Tsunami:

- Past tsunamis
- Distance – Local travel time
- Size of wave and size of earthquake.





Understand the Elements of an Tsunami Before it Happens

■ Different Types of Tsunamis

- Extreme Tsunami: **Worst case** –
- New data gathered by experts that a tsunami similar to the Japan Tsunami could happen in Hawaii.
- 1-1000 years
- Aleutian Islands
- 9.2 Earthquake
- 4-6 hrs arrival time



Japan's Worse Case



The 330 ton Kyotokumaru was swept by the towering tsunami from the city's dock for about 750 meters into a residential district of Kesenuma.



Understand the Elements of an Tsunami Before it Happens

- Possible effects to MCB Kaneohe Bay:
 - Loss of Life
 - Loss of Living Quarters
 - Loss of Government assets
 - Loss of Utilities (Electricity and Water)
 - Loss of shipping capability to Hawaii
- Possible effects to Camp Smith and Manana Housing
 - Loss of Utilities
 - Loss of Shipping capability to Hawaii
- Other areas
 - Same as the above



Know What to do During a Tsunami

■ Tsunami:

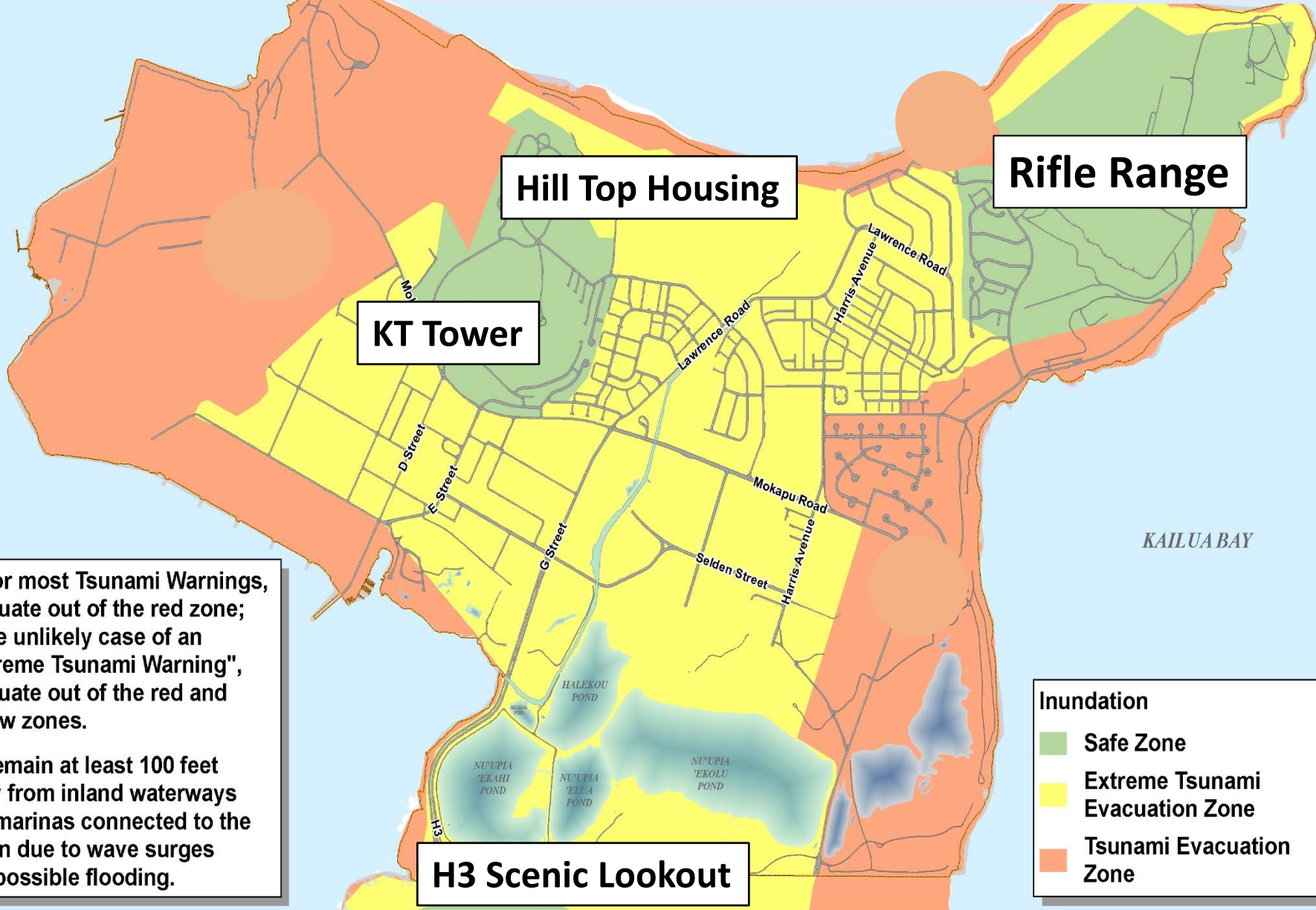
- Evacuate to safe haven
 - All beaches/ocean front areas.
 - Outside Zones 1a, 2a, 2b and 3b, Pu'uloa and Marine Corps Training Area Bellows.
- Everyone else is in a safe location.



MCBH Zones



Tsunami Evacuation



--- For most Tsunami Warnings, evacuate out of the red zone; in the unlikely case of an "Extreme Tsunami Warning", evacuate out of the red and yellow zones.

--- Remain at least 100 feet away from inland waterways and marinas connected to the ocean due to wave surges and possible flooding.



Know What to do During a Tsunami

- Extreme Tsunami:
 - Evacuation of entire Base
 - Ul'upau Rifle Range
 - Kansas Tower Hilltop area by O'Club
 - H3 to the scenic lookout.







Know What to do During a Tsunami

- Pu'uloa and Marine Corps Training Area Bellows
- All other communities
 - Move inland immediately
 - Go to:
 - <https://www.honolulu.gov/dem.html>
 - <https://www.tsunami.gov/>



Definitions

Tsunami Alerts		
Alert Name	Actions	Potential Hazards
 WARNING	Get to high ground or inland IMMEDIATELY Follow tsunami evacuation signage	Danger! Tsunami imminent! Flooding/powerful currents Wave heights > 3 ft. or unknown
 ADVISORY	Stay out of the water and away from the shore	Strong currents and dangerous waves in or very near water Wave heights of 1 - 3 ft.
 WATCH	Be prepared to take action Stay tuned to local radio/TV/ NOAA "alert" weather radios	Tsunami possible Alert level may change once more information is known
 INFORMATION STATEMENT	No action needed	No tsunami impact expected Alert level may change once more information is known



How to Be Prepared

- **Preparedness**: a set of actions that are taken as precautionary measures in the face of potential disasters.
- Tonight's focus is on **individual preparedness**
 - Alerts
 - Stay Connected
 - Prepare a "GO KIT"



Alerts

■ Alerts

- Pacific Tsunami Warning Center here in Hawaii sends out the alert
 - Watch – Pacific Warning Center is still investigating.
 - Warning – Confirmed Tsunami
- During a warning, the State will activate the Emergency Alert System (Sirens, Radio and TV and cell phones) .
 - The Siren aboard MCBH is activated by the State
- MCBH will augment the State's Alert System and activate the EOC
 - Speaker System (Meant for those that are outside)
 - Social Media
 - ATHOC (Text, phone calls, emails)
 - Patrols



■ Stay Alert

- If you **FEEL THE EARTH SHAKE**
- If the ocean water recedes
- If you hear a roaring sound off shore
- If you hear the sirens
- Stay connected on Social Media
- Turn to your radio or television for information.



AtHoc



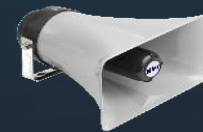
Social
Media



Telephone



Smartphone



Giant
Voice



PLMR



Take Actions Now to Ensure You Are Ready

- Prepare a “**Go Kit**” that will help you to survive for a few days
 - Food, water, diapers and formula for infant
 - Prescription medicine
 - Can opener/pocket knife
 - Important Documents
- Have a pet plan to include food
- Get connected on MCBH’s Social Media sites and sign-up for ATHOC.





What MCBH is doing to better prepare

- **Constant planning with Tenant Commands and Interagency Partners**
 - **State, City and County, FEMA, other Military on Island**
- **Base has a 24/7 duty officer and Provost Marshal's Office to monitor and take action 24/7.**
- **Information in Lobby:**
 - **Tsunami evacuation Maps**
 - **Information on how to sign-up for; social media, ATHOC and how to get to our webpage**
 - **Information on what types of supplies you might need**
- **MCBH.EOC.Coordinator@usmc.mil 257.8460**
- **<https://www.mcbhawaii.marines.mil/>**



Closing Comments



A tsunami-tossed boat tossed by giant waves lies atop a building in the city of Otsuchi in northern Japan

Sorted: Recent

Filtered: 2.0+ mag

Nearby Places

Oahu, Hawaii has had: (M1.5 or greater)

0 earthquakes in the past 24 hours

4 earthquakes in the past 365 days

The largest earthquake in Oahu, Hawaii:

this year: 3.7 in Marine Corps Base Hawaii - MCBH, Hawaii, United States

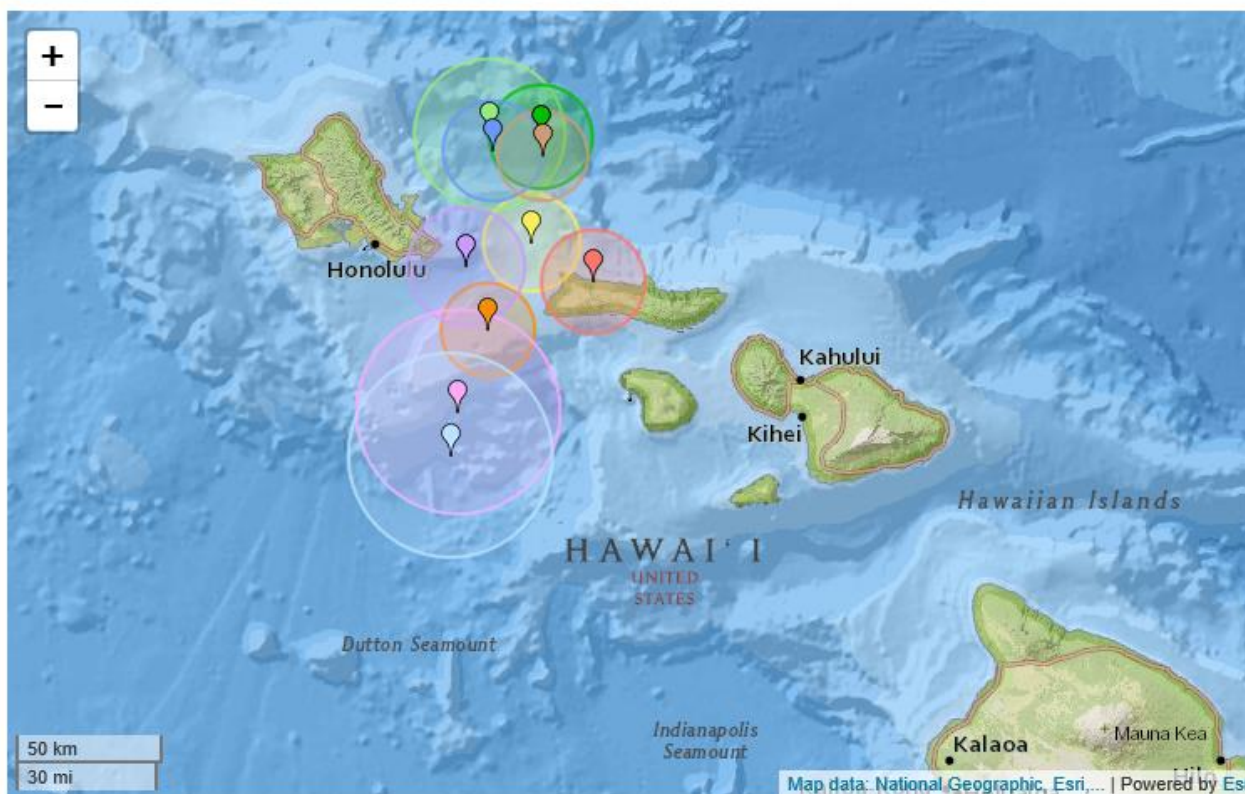
Earthquake Alerts via Twitter:

Follow @QuakesToday

Sorted: Recent

Filtered: 2.0+ mag

Nearby Places



- 4 months ago 2.4 magnitude, 2 km depth**
Waimānalo Beach, Hawaii, United States
- 5 months ago 2.5 magnitude, 13 km depth**
Waimānalo Beach, Hawaii, United States
- 5 months ago 3.7 magnitude, 10 km depth**
Marine Corps Base Hawaii - MCBH, Hawaii, United States
- 5 months ago 2.8 magnitude, 8 km depth**
Marine Corps Base Hawaii - MCBH, Hawaii, United States
- about a year ago 2.7 magnitude, 15 km depth**
Marine Corps Base Hawaii - MCBH, Hawaii, United States
- 2 years ago 3.2 magnitude, 14 km depth**
Waimānalo Beach, Hawaii, United States
- 4 years ago 4.2 magnitude, 6 km depth**
Waimānalo Beach, Hawaii, United States
- 4 years ago 4.2 magnitude, 16 km depth**
Lānaʻi City, Hawaii, United States
- 4 years ago 2.0 magnitude, 17 km depth**
Marine Corps Base Hawaii - MCBH, Hawaii, United States
- 4 years ago 2.8 magnitude, 0 km depth**
Kualapuʻu, Hawaii, United States

