

Lesson Learning from Past Tsunami Warning and Response

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CITY & COUNTY OF HONOLULU

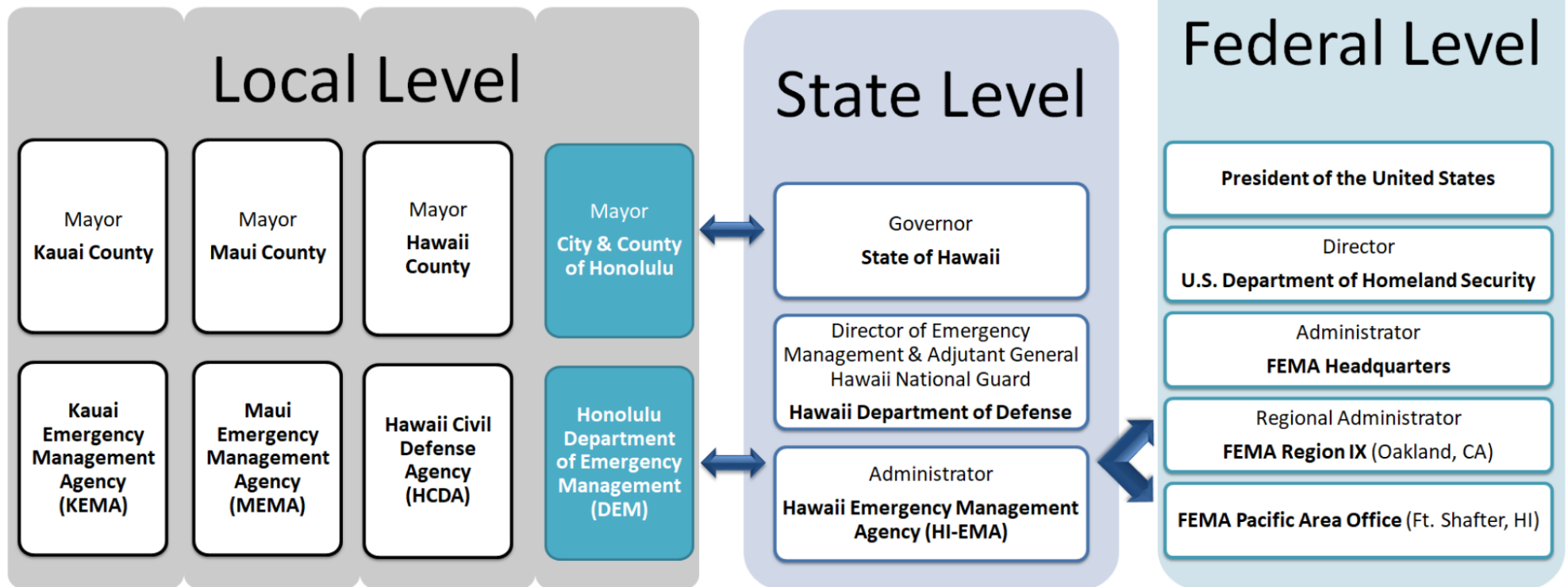
DEPARTMENT OF EMERGENCY MANAGEMENT





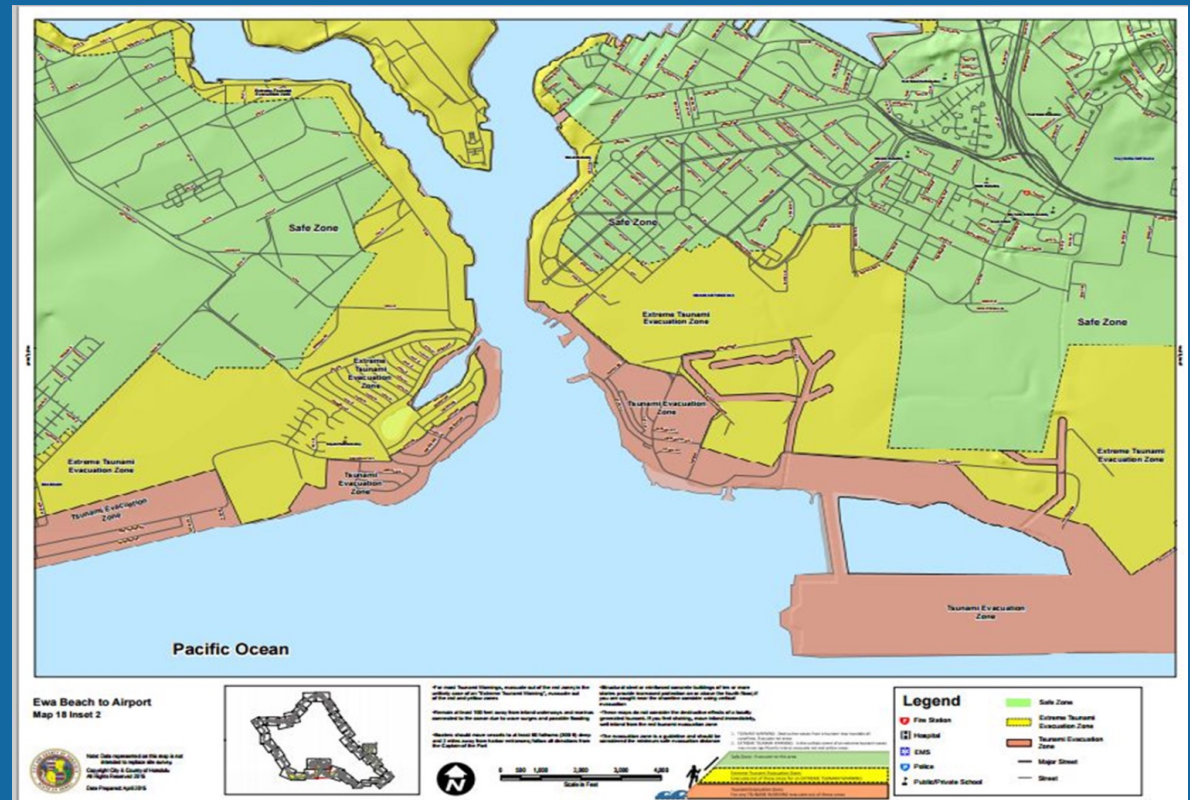
Stafford Act is the statutory authority for most Federal disaster response activities

Hawaii Revised Statutes 127 establishes state and local emergency management structure and authorities. Structure is communication, coordination, and support, not command and control.



KEY ROLES: LOCAL GOVERNMENT

- Coordination of response efforts by City agencies and non-governmental partners
- Alert and warning of the public
- Evacuation



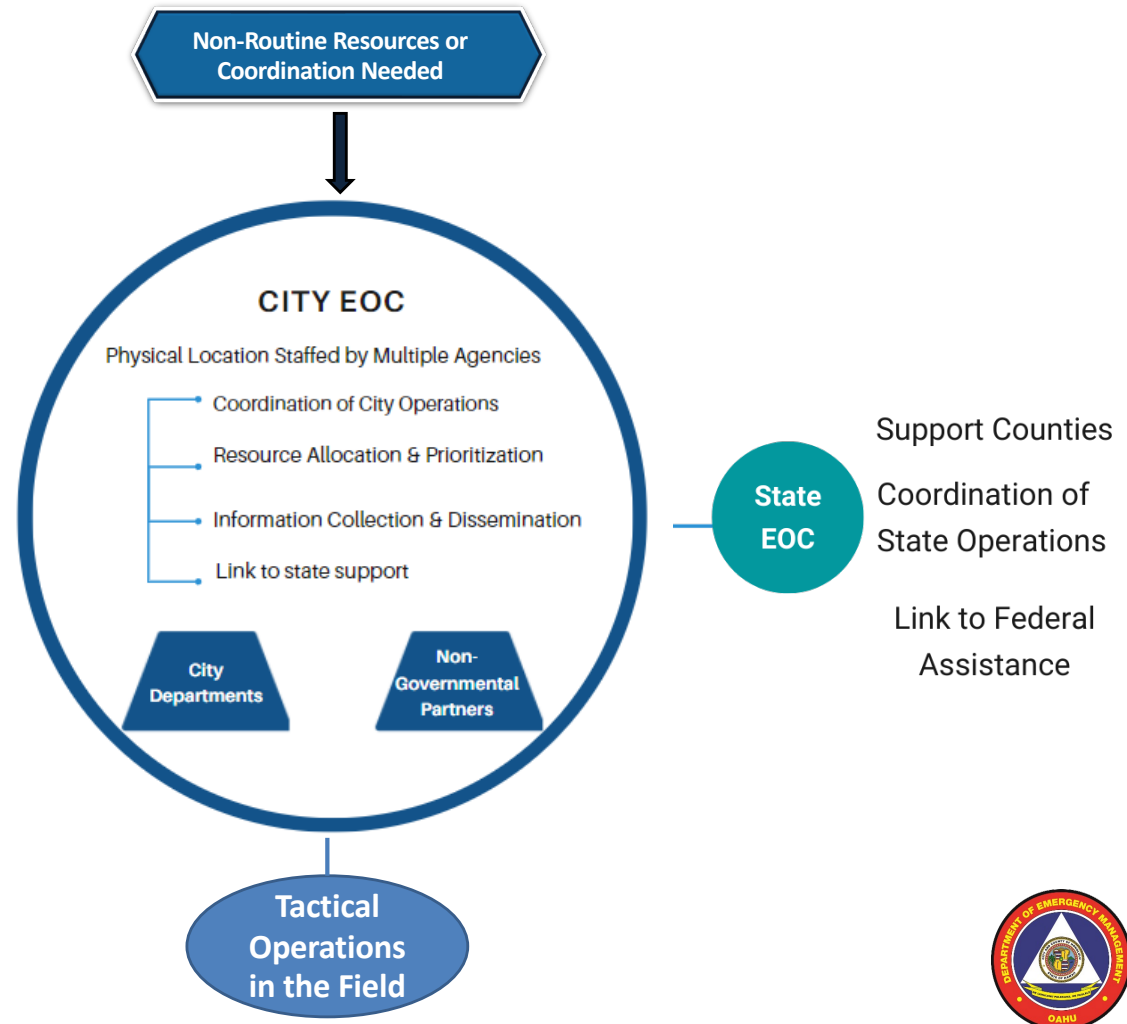
JULY 29 TSUNAMI WARNING: COORDINATION OF RESPONSE EFFORTS

1:31PM Watch issued for Hawaii

1:43PM Oahu EOC Fully Activates to Provide Overall Coordination of City Response

≈2:00PM Joint Traffic Management Center (JTMC) Facility activates their 'Bridge'

Dispatch supervisors from 911 call enters for police, fire and emergency medical services and the City's transportation agency go to a central location to coordinate tactical decisions related to evacuation



PUBLIC ALERT AND WARNING

1:31PM Tsunami Watch Issued (EAS Triggered)

1:37PM City Initiates Local Public Messaging via HNL Alert and Social Media – *prepare to act; review zone*

2:43PM Tsunami Warning Issued (EAS/WEA Triggered)





2:47PM City Initiates Local Public Messaging on Tsunami Warning – *take action – evacuate; link to map; vertical evacuation guidance; stay off road if outside zone*

3:22PM Statewide alert via EAS/WEA

4:10PM Initial siren sounding by State and EAS/WEA. Repeated Hourly

Non-Emergency Alerts

Opt-in systems

	
HNL ALERTS	OFFICIAL SOCIAL MEDIA
Sent to anyone who signs up at at hnlalert.gov via text, email, or app.	Alerts are posted on official social media accounts including City, State, and trusted partners.
Used in both routine and emergency situations.	
HNL Alerts about emergency situations are sent to all subscribers.	@oahudem
Uses a system provided by a City vendor.	
	@oahu_dem

Response

On-site efforts



FIRST RESPONDERS

First responders on scene make direct notifications to people at risk

Includes door-to-door notifications and the use of public address systems from emergency response vehicles

Emergency Alerts

Notifies everyone in affected area



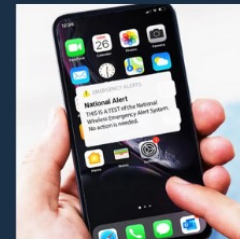
EMERGENCY ALERT SYSTEM (EAS)

Alerts that interrupt programming to deliver urgent emergency info on:

- Broadcast TV
- Cable
- Radio
- Satellite radio

Tested the first business day of the month.

Uses a system provided by FEMA.



WIRELESS EMERGENCY ALERTS (WEA)

Alerts that deliver urgent emergency info to all cellphones in affected geographic areas - no sign up required.

Short, text-like messages.

Uses a system provided by FEMA.



OUTDOOR WARNING SIRENS

Sirens are located primarily along coastal areas meant so people will hear them when they are outdoors. Sirens are used for tsunami warnings and other events.

Loud "Steady Tone".

Tested the first business day of the month at 11:45 a.m.

Sirens are installed/maintained by the state.

JULY 29 TSUNAMI WARNING: EVACUATION

2:47PM Tsunami Warning Triggers Mandatory Evacuation Order for 'Standard' Zone

3:30 – Early Departure Authorized for City and State Workers

3:39 Police Districts report evacuations initiated

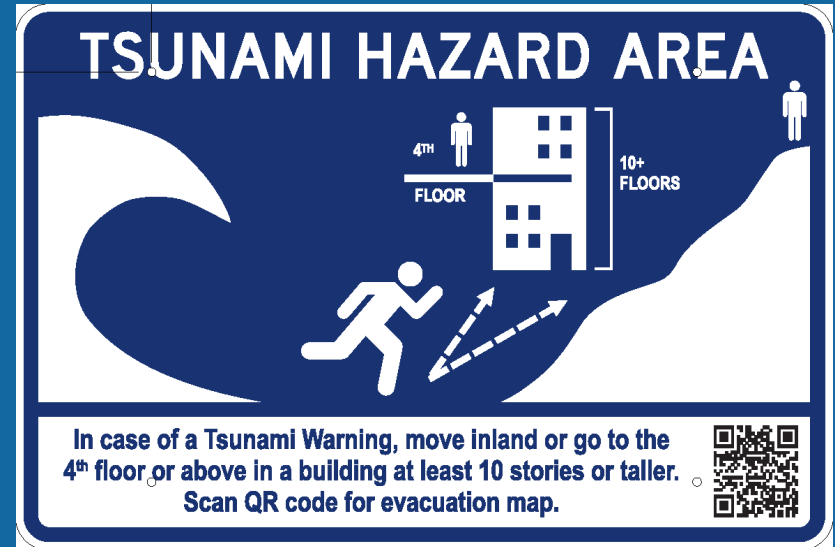
Afternoon – Coordination among partners to evacuate houseless areas

5:18PM – Assembly Area locations announced

6:00PM – Bus service suspended

10:51PM – Tsunami Warning downgraded to Advisory

11:00PM – All roads reopened and traffic reported to be slow but flowing



Assembly Area: Parking lot or other outdoor waiting area opened as a last resort option for people who do not have another safe place to go when a hazard forces them to evacuate or temporarily keeps them from reaching their home.



CHALLENGES

COORDINATION OF RESPONSE EFFORTS

- Decentralized and dated plans
- Long time in between events meant gaps in institutional knowledge and understanding of response protocols
- Difficulty obtaining situational awareness in the EOC
- *Post-impact plans and protocols*

PUBLIC ALERT AND WARNING / EVACUATION

- Lack of understanding of the 2 evacuation zones among public and responders
- Limited evacuation routes and severe traffic congestion under normal conditions
- Strong public desire to be told a specific place to go
- People getting on the road who did not need to
- Technology makes it harder to communicate evacuation zone to some populations
- Vulnerable populations needing evacuation assistance
- Statewide messaging via alert systems diminished distribution of local evacuation guidance



FOR THE FUTURE: WHAT DO WE NEED TO WORK ON

Public Education and Expectation Setting

Evacuation Planning: What is an executable evacuation plan?

Vulnerable Population Planning

Coordination of Public Message with Focus on Local Primacy

Alert Cancellation Protocols and Re-entry

Enhanced Forecasting/Modeling to Allow for Targeted Evacuations





MAHALO

