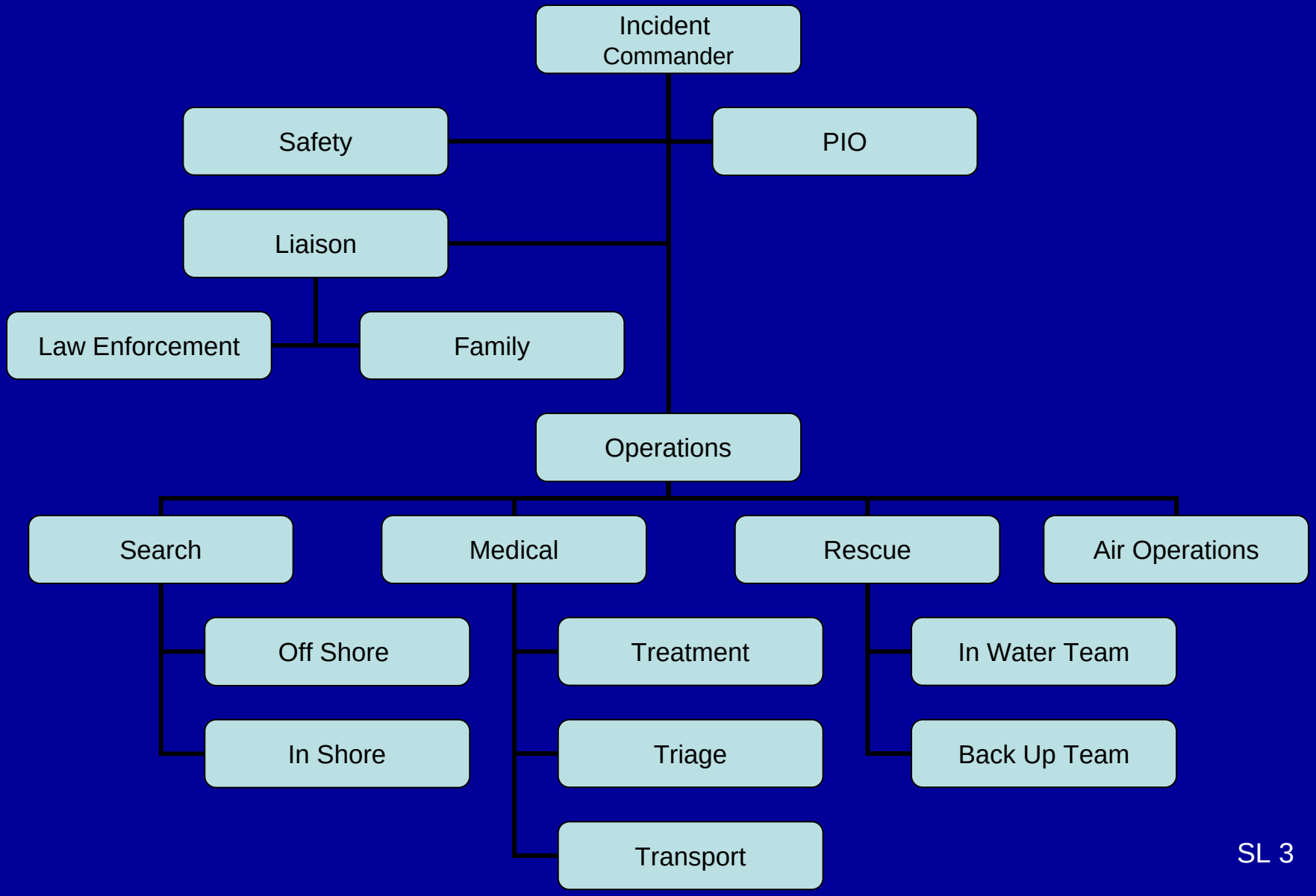
Surf Rescue Awareness

Objectives

- Understand communications
- Identify PPE
- Differentiate between backwash and rip currents
- Determine initial incident priorities
- Define Tsunami notifications

Surf Rescue ICS



Overview

- Surf rescue should be considered a specialized water rescue discipline, requiring extensive training and equipment

Communications

- Use assigned command and tactical frequencies
- Hand signals

Hand Signals

I AM OK / ARE YOU OK

Hand/fingers on top of head

MEDICAL ASSISTANCE NEEDED / URGENT

Arm waving above head

Hand Signals

COME TO ME

Single fist above head

SUBMERGED VICTIM (CODE X)

Arms crossed above head

Hand Signals

DIRECTIONAL –

MOVE TO THE LEFT OR RIGHT

Arm straight out to one side

Hand Signals
(Shore Based)

VICTIM OUTSIDE OF YOUR LOCATION

Both arms straight above head

VICTIM INSIDE OF YOUR LOCATION

Both arms straight out to your sides

Hand Signals

BOAT NEEDED /

BOAT ON THE WAY

Rescue Can / Tube held horizontal above head

Surf Zone Hazards

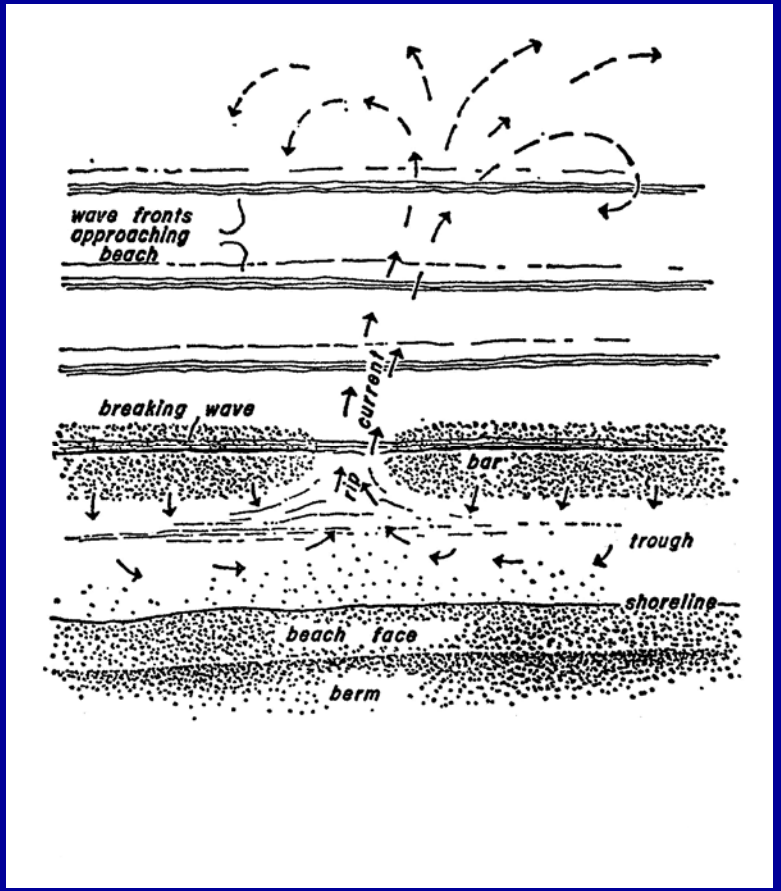
- Backwash
  - Incorrectly referred to as “Undertow”
- Rip Currents

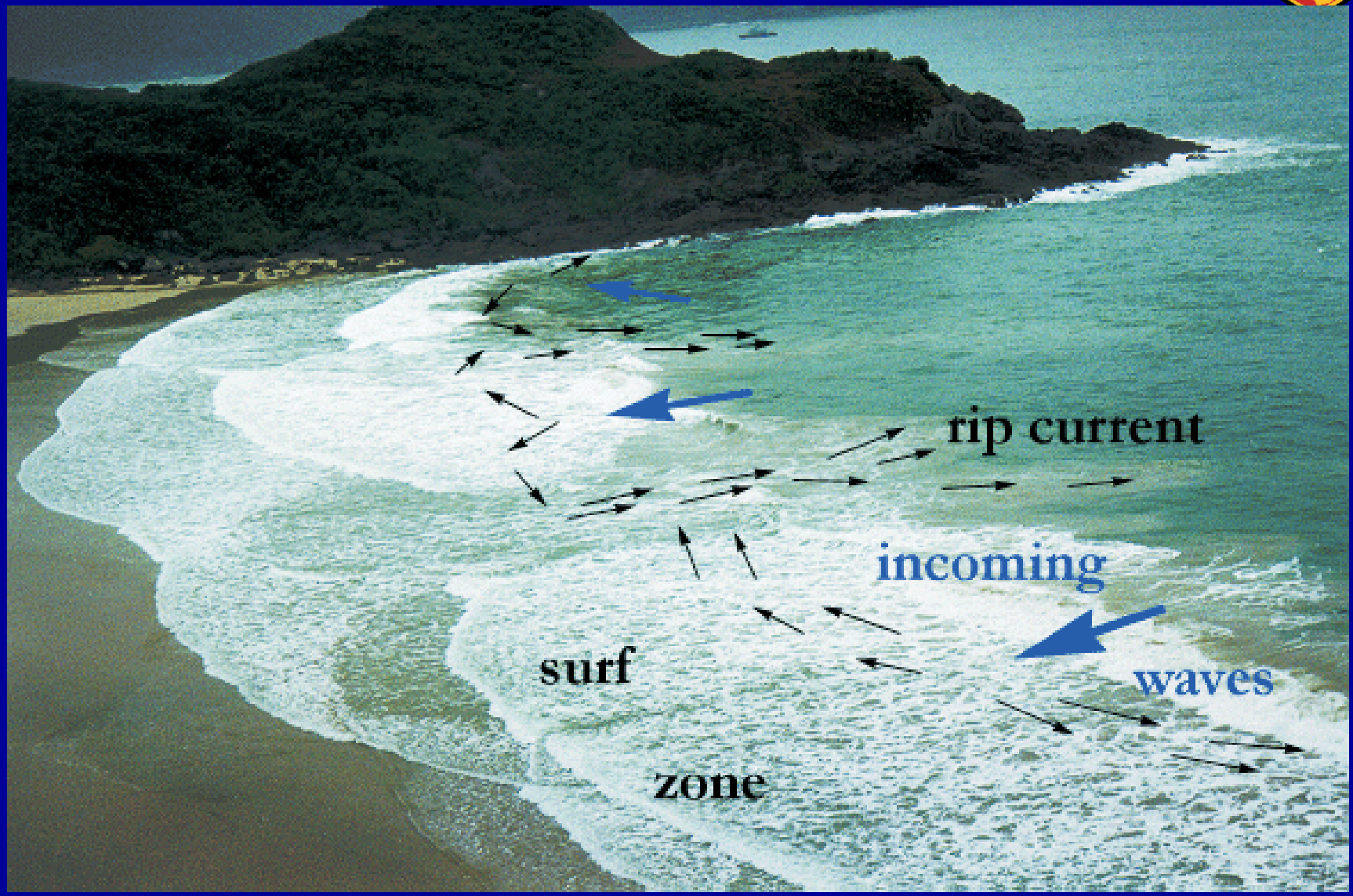
Backwash

- Water returning to the ocean on a steep beach face
- Flow strength can knock you off your feet and pull you under the oncoming wave

Rip Currents

- "River within an ocean"
  - Can flow up to 5 mph
  - Appears turbulent
  - Beyond breakers, current widens and ceases
- Accounts for 80% of surf rescues!




rip current
incoming
waves
surf
zone

Surf Zone

Incident Priorities

- Secure area, control by-standers
- Keep victim in sight
- Talk them to shore
- Post a lookout on high ground for better vantage point.
- Call for appropriate rescue asset

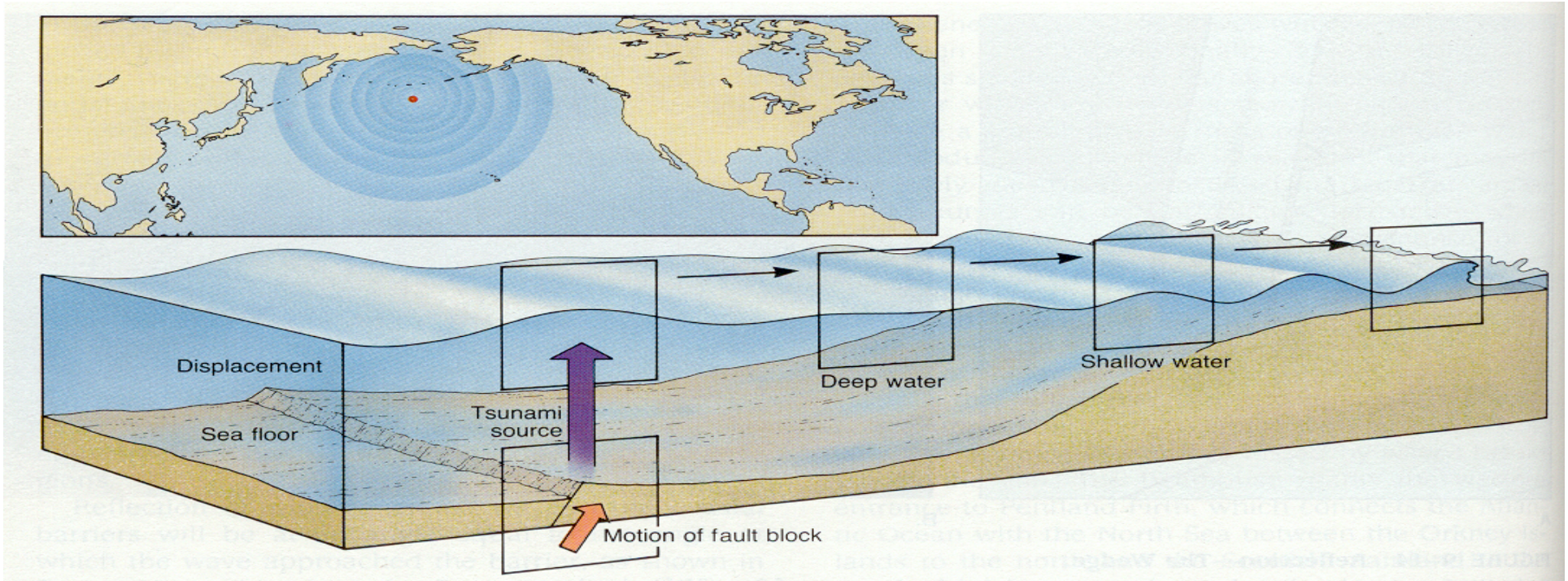
Rip Currents

- Operations
  - Direct victim to swim parallel to shore
  - Walk along the beach in the direction you want them to swim.

Tsunami's

How is a tsunami different from a regular wave?

- The wave action may be sustained for long periods of time and can come and go. Similar to a storm surge from a hurricane.
- Wind produced- wavelength 100-150 yards @ 10-15 sec.
- Tsunami's- wavelength 50 + miles @ 1 hr.
- Usually more of a quick moving surge than a breaking wave
- Water recedes before surge

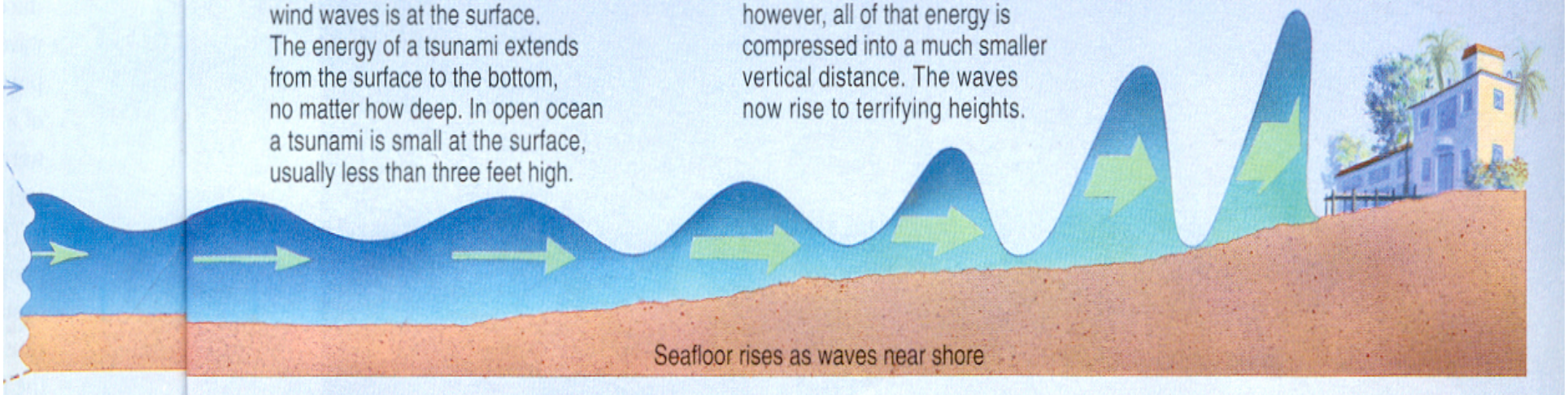


THE LIFE CYCLE OF A TSUNAMI

Almost all the energy of normal wind waves is at the surface. The energy of a tsunami extends from the surface to the bottom, no matter how deep. In open ocean a tsunami is small at the surface, usually less than three feet high.

As tsunamis enter shallow water, however, all of that energy is compressed into a much smaller vertical distance. The waves now rise to terrifying heights.

This effect achieves its maximum as the waves reach shore, where they can be 100 feet high or more. Early-warning systems can save lives; property is another matter.



Tsunami Notifications

- Advisory
  - When a watch or warning has been issued for the same ocean
- Watch
  - Watches are issued based on seismic information without confirmation that a destructive tsunami is underway.
  - Advanced Alert

Tsunami's

- Warning
  - Warnings are issued due to the imminent threat of a tsunami from a large undersea earthquake or following confirmation that a potentially destructive tsunami is underway.
  - Warnings advise that appropriate actions be taken in response to the tsunami threat.

NOAA is responsible for sending out warnings.

Incident Priorities

- Warning Issued
  - Evacuate low-lying area (beaches, river mouths) to high ground
  - Alert public
  - Stay out of harms way
  - Proceed with caution for rescues/support
  - Secondary waves may still strike!

Tsunami Video

(click on picture to play video)

Rescue Assets

- Water Operations
  - Coast Guard
  - County Sherriff- Search and Rescue
  - Local Area Fire Departments
  - CAL FIRE Units
  - Local Area Organizations (Volunteers)

Rescue Assets

- Air Operations
  - Coast Guard
    - Available 24 hrs/day
    - Tasked for SAR
  - County Sheriff / County Fire
  - CAL FIRE
    - 11 Helicopters throughout State, all have rescue capabilities
  - National Guard
  - CHP

Summary

- Do a complete scene size-up and determine the number of victims.
- Isolate and deny entry to civilians.
- Establish command.
- Order appropriate resources.
- Assign lookout on high area for victim search and rescuer communication.