

**3/22/11  
OVERVIEW:  
EMERGENCY  
DISASTER  
PREPAREDNESS  
IN ALASKA**

<TARGET><BILL></BILL><SUBJECT>3-22-11 OVERVIEW  
EMERGENCY DISASTER PREPAREDNESS IN  
ALASKA</SUBJECT><COMM>HCRA27</COMM></TARGET>

<<GAVEL>>

Let's call the meeting to order.

Let the record reflect that it is 8:00 a.m. on Tuesday, March 22, 2011.

Present for this House Community & Regional Affairs Committee Hearing,  
Representative Saddler  
Representative Austerman  
Representative Cissna  
Representative Dick  
Vice-Chair Foster  
Representative Gardner  
And myself, Chair Muñoz

The recent earthquake/tsunami emergency in Japan is a painful reminder of the importance of emergency/disaster preparedness & response. When a seismic event occurs, or any force of nature that results in catastrophic destruction it is imperative in Alaska that we be as ready to respond.

We have invited multiple agencies to our committee today to give us their latest available information on how our state & municipalities can best be ready in the event of such an occurrence.

✓  
1) **Health & Social Services**

**Dr. Joe McLaughlin**-State Epidemiologist

**Christine(Chris) Laborde**-Public Health Preparedness Program Manager

Available for questions at Anchorage LIO:

**Kerre Fisher**, Deputy Director, Division of Public Health

**Dr. Bernie Jilly**, Public Health Laboratory Director

**Clyde Pearce**, Radiological Health Program Chief

**Greg Wilkinson**, Public Information Officer, *if not on jury duty*

(CONTINUED NEXT PAGE)

*- www.HSS.state.ak.us → Cissna question*

**2) Alaska Department of Environmental Conservation**

**Alice Edwards** -Division Director, Air Quality-to answer any questions on their air monitoring efforts

(ONLINE from Anchorage)

**Kristen Ryan**-Environmental Health Division Director

**3) Dept of Military & Veterans Affairs/Homeland Security**

**Major General Thomas Katkus**-Commissioner

**McHugh Pierre**-Deputy Commissioner

**Mike O'Hare**-Deputy Director-Division of Homeland Security

( Below ONLINE) for questions from **Anchorage Division of Homeland Security**

**Bryan Fisher**-Operations Manager

**Merry Carlson**-Preparedness Program Manager

**4) City & Borough of Juneau-Tom Mattice**-Emergency Programs Manager- "Preparing the community to support S.E. Alaska through collaborative planning, training, and exercises."

<GAVEL OUT>

# The Japanese Nuclear Crisis: What it Means for Alaska

Joe McLaughlin, MD, MPH  
State Epidemiologist  
Alaska Division of Public Health

Chris Laborde  
Preparedness Program Manager  
Alaska Division of Public Health



March 17, 2011

Hello Rod,

Thank you for asking me to look into this possible radiation event more closely in order to brief you.

The events of the past ten days have raised concerns among many in the population. The fears are that some sort of "event" at the Fukushima location in Northern Japan could cause the ejection of large quantities of radioactive contamination into the atmosphere, and that such contamination could then cause fallout of dangerous radioactive materials that would reach our latitude in North America.

I focused my research on the State of Alaska, its current position statements, and fact sheets. I also tried to find outside credible sources who were theorizing possible outcomes and their effects. In brief, here is what I discovered.

The State of Alaska, Governor's Office, Department of Health and Social Services, and Division of Homeland Security and Emergency Management, are presenting a unified front with one voice creating the same message through all agencies. They are being quite open with the public and acknowledging that we could see a very small increase in radiation levels due to the reactor crisis in Japan. In a Department of Health and Social Services Fact Sheet they stated, "We don't expect significant levels of radioactivity in our state. Japan is thousands of miles from our state, and if radioactivity from the reactors is released it would be expected to be thinned-out by the winds before it could reach us. We could see a very small increase in radiation levels; well below levels that would be of concern."

This, in my mind, is acknowledging that a problem exists and that this problem has to do with particles and spreading. They acknowledge that there are millions of particles that will be spread and a possibility exists for some of these particles to be blown through the air; some perhaps even as far as Alaska. But also they mention dilution and how even though we could see some particles, through dilution, we would not see enough particles to create a problem. It would be like placing a drop of water in an ocean, but they admit this drop of water could exist, and there is a possibility it will land in the ocean.

They stated the best actions people should be taking now are the same as always. Prepare for All-Hazards events; earthquakes, tsunami's, many of the preparedness measures are the same. The best resource for all types of preparedness is [READY.GOV](http://READY.GOV).

According to the State, "There is no immediate or anticipated indication of harmful radiation reaching Alaska or its waters, and therefore all seafood and other food items produced in the state are safe to consume."

In the States fact sheet it continues to say: There are two kinds of contamination, internal and external. Internal is through breathing/ swallowing or through contamination of open exposed wounds. External is through exposure. In the event of exposure, this type of contamination can often be washed off the body. Both of these types of contamination can be minimized or eliminated should we need to by covering up and limiting exposure.

As stated in a March 16<sup>th</sup> Press Release from the Governor's Office, "The state will immediately notify the public if the radiation levels should change."

Should we expect high levels of Radioactive Contamination there are a few public health actions to take into consideration:

- If Radiation levels rise substantially we will immediately inform the public.
- If a Radiation Emergency evolves, the public will be advised to "Shelter in Place," which means to stay in their homes or offices, or evacuate to another location if needed. If people are advised to shelter in place, they should do the following:
  1. Close and lock all doors and windows (lock to prevent accidental opening)
  2. Turn off fans, air conditioners, and forced air heating that bring in fresh air from outside.
  3. Only use ventilation units that reticulate indoor air;
  4. Close fireplace dampers;
  5. Move to an inner room or basement (further distance for particle travel) and;
  6. Keep a radio tuned to local news to find out further instructions.
- If the situation persists for a long period of time or if people are advised to evacuate, they should leave the area as quickly as possible in an orderly fashion. They would be given instructions of what to bring and where to go at that time.

Once again, these are precautionary measures and there are no indications, at this time, of an event of this nature, nor is it expected. We simply want to be pro-active in educating the public as to best practices for such an event.

Also, should high levels of radioactivity exist, and the need for medical pharmaceuticals distribution should arise, the Strategic National Stockpiles would be released and distributed to the areas in need through DHSS much like for the H1N1 Virus. Should someone feel the need to purchase anything on their own ahead of time, Potassium Iodine is often available locally. On an interesting side note, seaweed is an excellent source of this same chemical.

Once again please recognize health effects are related to high levels of prolonged exposure to radiation which are not predicted.

Local radiation readings are taken 15 times daily in Anchorage, Fairbanks, and Juneau. They are stored at <http://www.epa.gov/narel/radnet/stations.html>. Upon going to this site I could not find Juneau postings & Information. I followed up with them hoping to get a corrected link or find where I may see the local test results as rapidly as possible. They informed me there is no public link yet to "real time" Juneau data but they are working on making it publically available as soon as possible.

Turning my research away from the State and the government releases here are a few things I was able to find. Let us examine the issues.

1) What is the nature of any event that could produce airborne contamination?

The worst nuclear-generating site accident in history was the Chernobyl event in the Ukraine in 1986. In that situation, the reactor core exploded while the reactor was fully powered up and there was no containment. Substantial surface radiation extended roughly 1,000-1,500 km away (620-930 miles). Spread was limited by the fact that radiation in the Chernobyl event was not ejected at high altitudes. Thus it was a low-level ("tactical") rather than "strategic" explosive event.

Compare that to the actual use of nuclear weapons in Japan at the end of WW II and the testing of fission and fusion weapons throughout the post-war years. These were, in many cases, true strategic high-level explosions occurring in the atmosphere in such a way that radiation was ejected to stratospheric levels.

Testing performed in the Marshall Islands at the Pacific Proving Grounds during the period from 1946 to 1962 included the detonation of 105 atmospheric nuclear devices, varying in size from small kiloton to huge megaton bombs. Total yields of 210 megatons of explosive power (i.e., 210 million tons) were released during those years, yielding many tons of high-altitude radioactive contamination.

Despite these Pacific tests, only relatively low levels of radioactive fallout were detected in continental North America, and no health effects were ever proven to be due to the Marshall Island tests in the continental U.S.

In the present situation, two of the four reactors at Fukushima were inactive (not generating heat) and two of the reactors were successfully SCRAMed (turned off as an emergency step) before the area was hit by the tsunami that flooded the diesel generators used to pump cooling water. The situation that resulted therefore does not threaten a reactor explosion, but a burning or meltdown of stored fuel rods or quenched fuel rods in the inactive reactors. As such, the danger is not explosive, but one of fire with potential release of low-level radiation.

2) Could any contamination reach our location?

There is no doubt that we are "downwind" from the Fukushima event.

Dr. Clifford Mass (Professor of Atmospheric Sciences, University of Washington) recently discussed this subject in some detail (<http://cliffmass.blogspot.com/>).

Dr. Mass states that, "any radiation debris that might be ejected from a fire (not an explosion) occurring at the Fukushima site, even if they were heading straight for us, would be diluted vastly through huge volumes of the atmosphere due to horizontal and vertical mixing. Since it would take days to arrive, any larger particles would settle out and precipitation would wash others out. Even for Chernobyl, where the core exploded while the reactor was powered up and where there was no containment, serious radiation only extended roughly 1000-1500 km away. The Northwest and SE Alaska are more than 7,000 km away. Clearly, the situation in Japan is serious and tragic, but the U.S. is not threatened."

So, the conclusion is that yes, some combustion products might arrive in the U.S., but the amounts that would be present would likely be imperceptible as this is not an explosive scenario, but rather a fire situation. I think the government is being very open and honest in saying that some particles may get as far as Alaska. But I think it's important to remember that through diffusion over the long travel distances we will not see concentration levels high enough to be concerned with.

Please let me know if I may answer any questions for you. I will do my best to stay up to speed on the situation and will update you immediately should the situation change.

Thank you,

Tom Mattice  
Emergency Programs Manager  
907-209-9207  
[Tom\\_Mattice@ci.juneau.ak.us](mailto:Tom_Mattice@ci.juneau.ak.us)

# Implications for Alaska

- **There is no immediate or anticipated threat for harmful levels of radiation to reach Alaska**
- **Alaska's seafood is unlikely to be affected**
- **This is an important reminder that all Alaskans should assemble a home emergency kit and a family response plan**

# Public Health Response to a Radiation Emergency

- Inform
- Protect the public from radiation exposure
  - Shelter-in-place and/or evacuation
  - Distribution of radiation medications (e.g., KI, DTPA, etc.)
  - Restrict consumption of contaminated food
- Decrease psychological effects of radiation exposure
- Long-term follow-up for exposed persons
  - Case identification and tracking (registry)
  - Access to care

# DHSS Communication Response

- Responded to media requests
- Issued press releases and messages through social media (e.g., Facebook and Twitter)
- Issued an *Epidemiology Bulletin*
- Principal messages
  - No anticipated threat to the health of Alaskans
  - Alaskans should not be taking potassium iodide
  - Monitoring
  - Communicating with local, state, and federal partners
  - Important reminder that all Alaskans should be prepared

# What can Alaskans do to be prepared for an emergency?

- Create a home emergency supply kit
  - Food with a long shelf life, water, change of clothes, plastic bags, bedding, radio, medicines, toiletries, flashlight, batteries, telephone, duct tape, heavy plastic, cash, important documents...
- Create a vehicle emergency supply kit
- Develop a family response plan
- Practice

# Alaska Radiation Monitoring

- Alaska's monitoring stations continue to show normal background levels of radiation
- 5 EPA monitoring stations
  - Currently reporting: Anchorage, Fairbanks, and Juneau ( $\gamma$ )
  - Soon to be reporting: Dutch Harbor, Juneau ( $\beta$ ), Nome
- If levels were to rise substantially, we would measure specific isotopes to determine if steps are needed to protect the public's health
- Data are available at the DHSS homepage: [www.hss.state.ak.us](http://www.hss.state.ak.us)

Gamma

Beta

Gamma - X-ray  
Beta - particles

# Food Supply

- FDA is closely monitoring
  - Increased and targeted product sampling at the border
  - <4% of US imported foods come from Japan
- Current models indicate that US fishing waters will remain safe
  - “The great quantity of water in the Pacific Ocean rapidly and effectively dilutes radioactive material, so fish and seafood are likely to be unaffected” FDA

what products?

Exposure (rem)	Notes and Effects
0.00008	Amount of radiation reported in Tokyo on March 15 <sup>(21)</sup>
0.0016	Avg. amount of radiation absorbed per person per day
0.04	Chest x-ray
0.6	Avg. amount of radiation absorbed per person per year
1.4	Gastrointestinal series <i>What is this?</i>
40	Maximum radiation reported at the main gate of Fukushima Daiichi power plant (March 15)~
5-50	Fetus/embryo: slightly increased risk of malformations, growth and IQ impacts, failure to implant Children/adults: changes in blood chemistry (e.g., <u>WBC</u> )
50-90	Nausea, fatigue, vomiting, hair loss, diarrhea

# Availability of Radiation Medications

- Radiation medications are included in the Strategic National Stockpile
  - Potassium iodide, Prussian blue, DTPA
  - Antiemetics, Neupogen, antibiotics
- CDC will only deploy if there is a “credible threat”
- “No public health risks are expected in the United States” US DHHS

*prevent  
internal  
exposure*

# Summary

- **There is no anticipated threat of harmful radiation exposure to Alaskans at this time**
- **Alaska's seafood is unlikely to be affected**
- **All Alaskans should be prepared for disasters**
- **More information is available at [www.hss.state.ak.us](http://www.hss.state.ak.us)**

State of

**Alaska**

Department of Military  
and Veterans Affairs

Homeland Security &  
Emergency Management



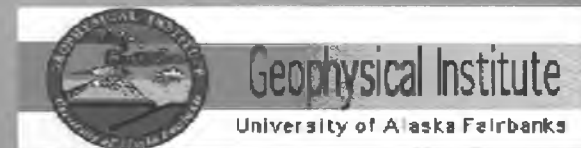
# **ALASKA TSUNAMI MODELING & EMERGENCY PREPAREDNESS**

**Mike O'Hare**  
Deputy Director

**State of Alaska**  
**Division of Homeland Security and Emergency Management**

Testimony to House/Senate C&RA      March 22, 2011

# Our Partners



# Distant Threat

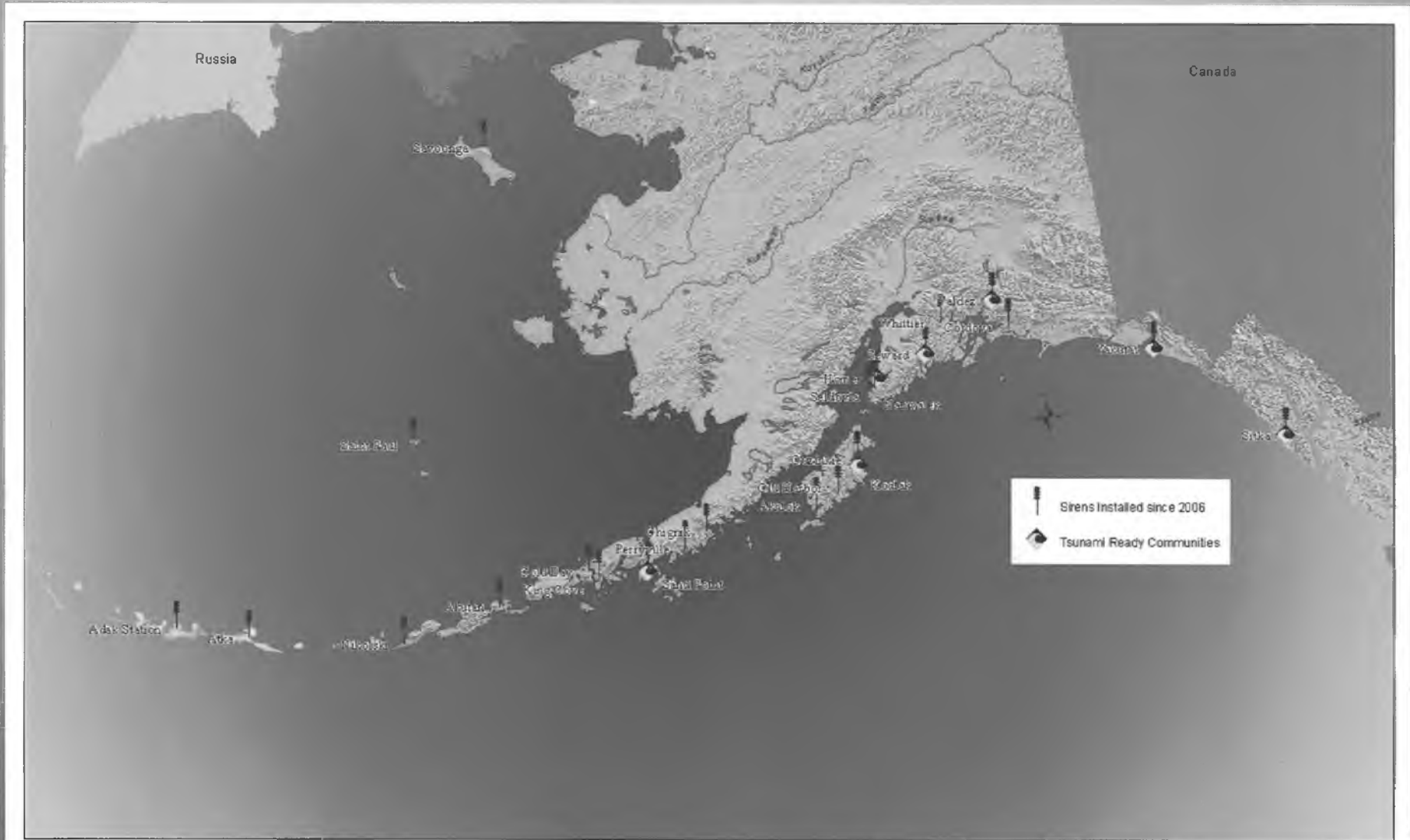


**TSUNAMI HAZARD  
 BY COMMUNITY  
 (DISTANT SOURCES ONLY)**

- High
- Moderate
- Low
- None or negligible



# Warning Sirens and TsunamiReady Communities



*Sirens installed in 2006*



**Zone B Includes:**

Nikolski: 907-576-2204/2202/2239

Contacted: \_\_\_\_\_

St. Paul: 907-546-3130/3132

Contacted: \_\_\_\_\_

St. George: 907-859-2263/2418/2415

Contacted: \_\_\_\_\_

Unalaska / Dutch Harbor: 907-581-1233

Contacted: \_\_\_\_\_



**Zone A**  
Previous Page

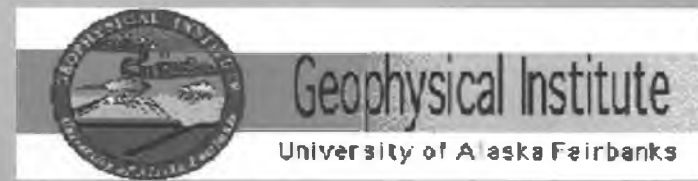
**Zone B**

**Zone C**  
Next Page

**TSUNAMI NOTIFICATION CALL**



# Inundation Maps UAF / GI





## Hazard Mapping



**AK DGGGS**

# Warning Sirens



King Cove



Sand Point

# Warning Sirens



**Chignik Bay**



**Perryville**

*Nat. Hazards  
Tsunami  
Program*

# Warning Sirens



**Akutan**



**Ouzinkie**



State of

Alaska

Department of Military  
and Veterans Affairs

Homeland Security &  
Emergency Management



# Warning Sirens



Atka



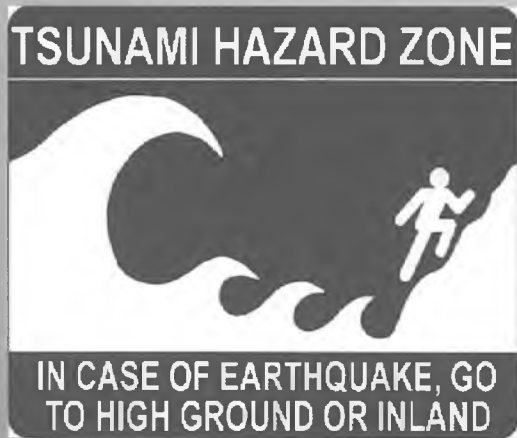
Nikolski





## Kenai Peninsula Borough Mobile Siren

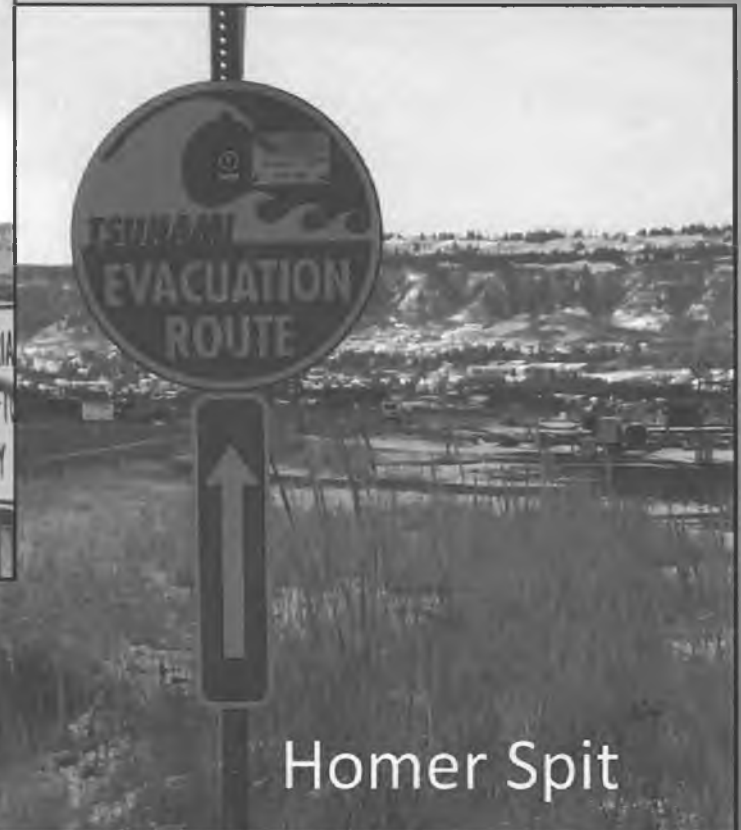
# Tsunami Sign Program



# Tsunami Signs



Homer Terminal



Homer Spit

# Tsunami Signs



Sand Point Harbor



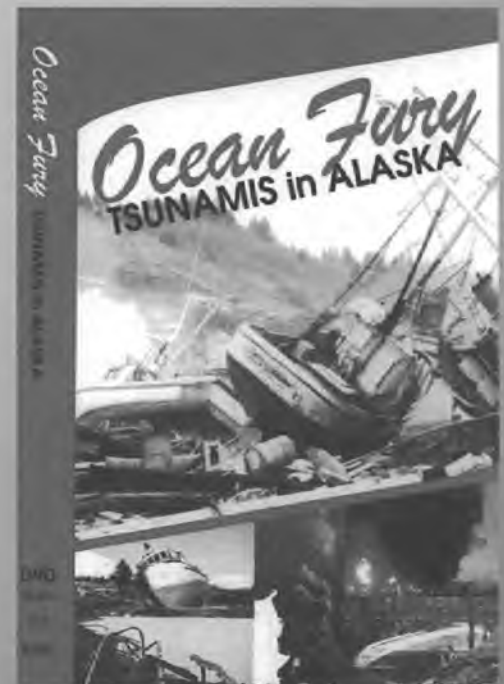
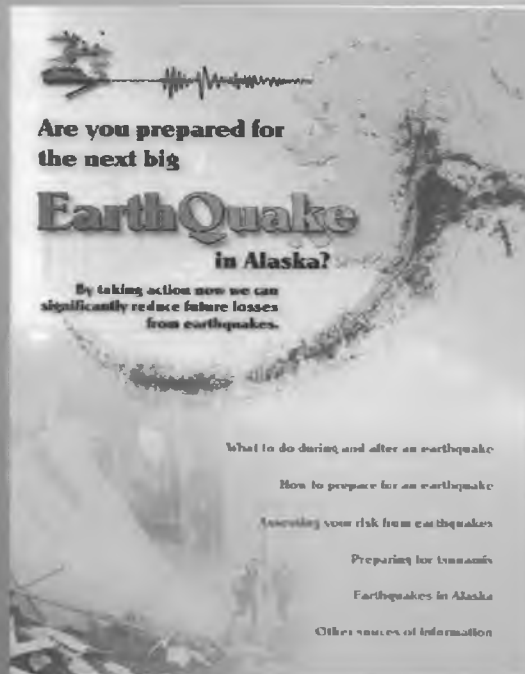
## "Quake Cabin"

- Quake Cabin increases tsunami and earthquake focused outreach initiatives throughout Alaska
- Distribute outreach materials
- Teach mitigation methods
- Simulates 5.0 magnitude
- Used at public and private events
- Schools & businesses
- State fairs & safety events





# Outreach Products



State of

Alaska

Department of Military  
and Veterans Affairs

Homeland Security &  
Emergency Management



*An educated and aware public  
with a plan of action will have  
the ability to adapt to the  
situation and respond  
accordingly.*



# Valdez 1964





# Hazards / Threats

- Earthquakes
- Floods
- Volcanoes
- HAZMAT
- Severe Storms
- Tsunamis
- Wildland Fires
- Avalanches
- Terrorism
- Pandemic Flu
- Other



# Partnerships



## Local Communities

### State of Alaska

Department of Military and Veterans Affairs  
 Alaska National Guard  
 Division of Homeland Security and  
 Emergency Management  
 Department of Public Safety  
 Alaska State Troopers  
 Department of Health and Social Services  
 Department of Environmental Conservation  
 Department of Transportation  
 Port of Anchorage  
 Department of Corrections  
 UAF Unmanned Aerial Systems  
 Alaska Railroad

### Alaska-Based DOD

Joint Task Force – Alaska (JTF-AK)  
 Alaskan NORAD Region (ANR)  
 US Army Alaska (USARAK)  
 US Army Garrison Alaska (USAG-AK)  
 US Army Garrison Ft Wainwright (USAG-FWA)  
 Bassett Army Community Hospital (BACH)  
 US Army Garrison Ft Greely (USAG-FGA)  
 3rd Wing (3WG)  
 US Army Corps of Engineers – Alaska (USACE-AK)

### External DOD

FEMA Region 10 DCE

### Other Organizations

AK Partnership for Infrastructure Protection (APIP)  
 Amateur Radio Emergency Services (ARES)  
 Civil Air Patrol  
 American Red Cross

### Other Federal

Department of Homeland Security  
 USCG District 17  
 FEMA Region 10  
 TSA  
 Department of Justice  
 US Attorney  
 Department of Transportation  
 FAA



# Questions?

[www.ready.alaska.gov](http://www.ready.alaska.gov)

## Terry Harvey

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**From:** Jack Smith [jrsmith907@hotmail.com]  
**Sent:** Monday, March 21, 2011 6:08 PM  
**To:** Terry Harvey  
**Subject:** RE: written testimony

The Salvation Army has had a presence in Japan since 1895. We have 80 centers serving the People of Japan. The "Army" has already started the dispatch of personnel and relief goods. If you feel led to contribute to this cause. You can do this one of two ways.

You can mail direct to The Salvation Army  
PO Box 20110  
Juneau, Alaska 99802

Indicate on your check that is for "Japan Relief".

This is the preferred method as I can track how Juneau has responded.

Go online to [www.donate.salvationarmy.org](http://www.donate.salvationarmy.org) - You can then choose how you would like to make you donation.

All donations are tax deductible and your personal information is kept confidential.

Captain Jack R Smith, Corps Officer  
Juneau Citadel Corps  
907 586-2136

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**From:** [Terry Harvey@legis.state.ak.us](mailto:Terry_Harvey@legis.state.ak.us)  
**To:** [jrsmith907@hotmail.com](mailto:jrsmith907@hotmail.com)  
**Date:** Mon, 21 Mar 2011 17:51:31 -0800  
**Subject:** written testimony

Email to me written testimony and we will get it on the record in our committee, thank you. Below is the title of tomorrows hearing.

**+Overview: Emergency Disaster Preparedness in Alaska**

Department of Military & Veterans Affairs, Division of Homeland Security  
Department of Health & Social Services  
Department of Environmental Conservation  
City & Borough of Juneau Emergency Program Management

Terry Harvey, Committee Aide  
House Community & Regional Affairs  
Rep. Cathy Munoz, Chair  
(907)465 5392