

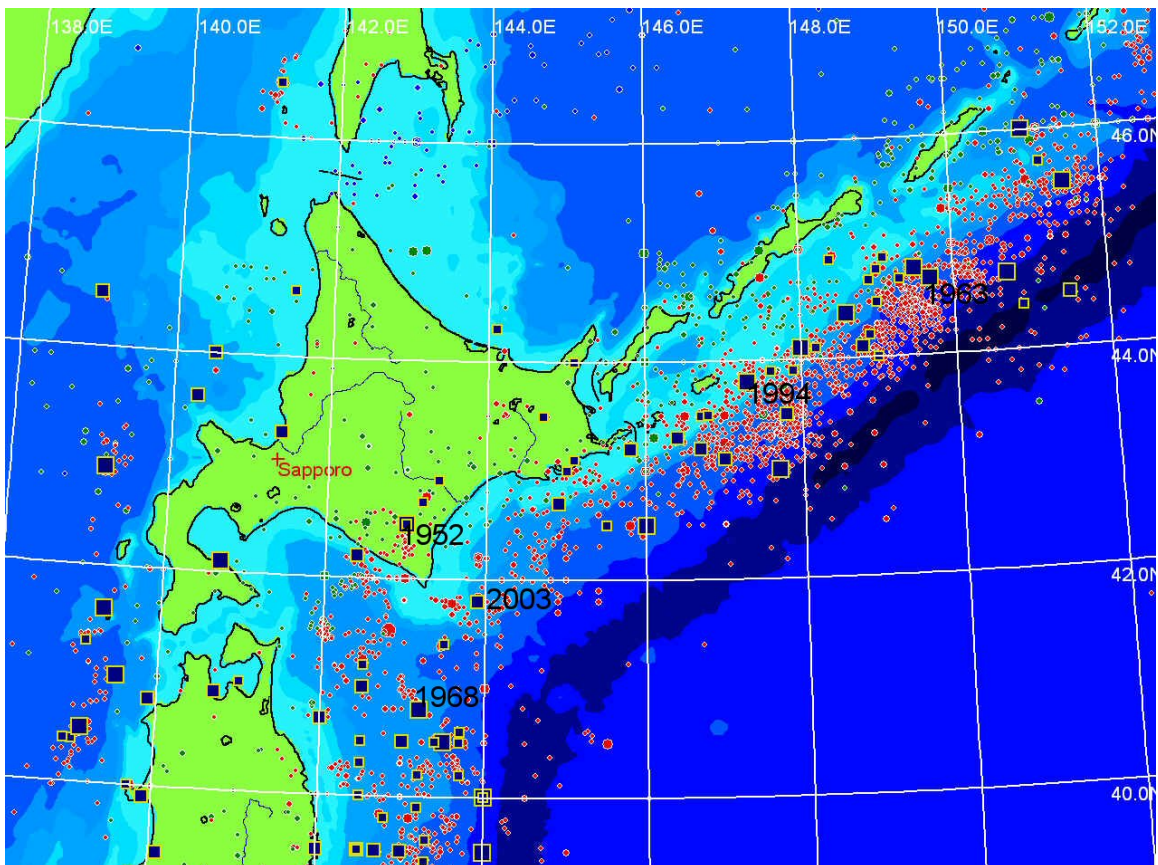
# U. Washington Tsunami Certificate Program

## Course 2: Tsunami Warning Systems

### Exercise 2: Historical Data base used as a forecast tool

**Purpose:** The purpose of this exercise is to help participants understand how the historic tsunami data base can be used to estimate distant wave heights and what accuracy can be expected.

**Instructions:** The 2003 Hokkaido event has just occurred. All you know is the magnitude and location of the event, and you have some historical data from four previous nearby tsunamis to help estimate the wave impact in Alaska and the U.S. west coast. Based on the observed wave heights in Japan, what are your estimates for the wave amplitude at: Adak Alaska; Crescent City, San Francisco, and Los Angeles California. The map below shows the locations of the events



**Historical data (wave amplitude in meters listed for each site):**

Site	1952 – M8.1	1963 – M8.5	1968 – M7.9	1994 – M8.1	2003 – M8.3
Hanasaki, Japan	2.6	1.2	1.1	1.8	1.1
Kushiro, Japan	2.8	0.9	2.3	1.0	1.2
Hachinohe, Japan	1.0	1.3	3.4	0.7	1.0
Adak, Alaska	<0.1		<0.1	0.15	???
Crescent City, CA	0.2	0.5	0.6	0.5	???
San Francisco, CA	<0.1	<0.1	<0.1		???
Los Angeles, CA	0.1	<0.1	<0.1	0.06	???
La Jolla, CA	<0.1	0.1	<0.1	0.03	???

Adak estimate \_\_\_\_\_

Crescent City estimate \_\_\_\_\_

San Francisco estimate \_\_\_\_\_

Los Angeles estimate \_\_\_\_\_

Ja Jolla estimate \_\_\_\_\_