In 1960 the largest recorded earthquake (9.5 magnitude) off the coast of Chile triggered a large tsunami that spread across the Pacific Ocean – as mapped above. Many people in Hawaii, when warned of the incoming wave, went down to the beach to watch. The large amount of damage and death that ensued showed the need for education about the dangers of tsunamis and how to properly respond to them. (NH)
**Figure 9.4 An Underwater Earthquake in Pacific NW is Overdue!**

(top) The Juan de Fuca (JF) plate is subducting below the North American (NA) plate. The stresses associated with the “locked” configuration of the JF/NA plate collision zone are causing an extreme distortion (i.e. strain) of the NA plate.

(middle) Sometime in the future (who can say when) the stresses of the distorted configuration will exceed the friction between the two plates and the fault will rupture – allowing the NA plate edge to “spring” upward and outward. The rapid sea floor movement could produce a tsunami that would propagate both shoreward and seaward. (SciAmer 12/1995)