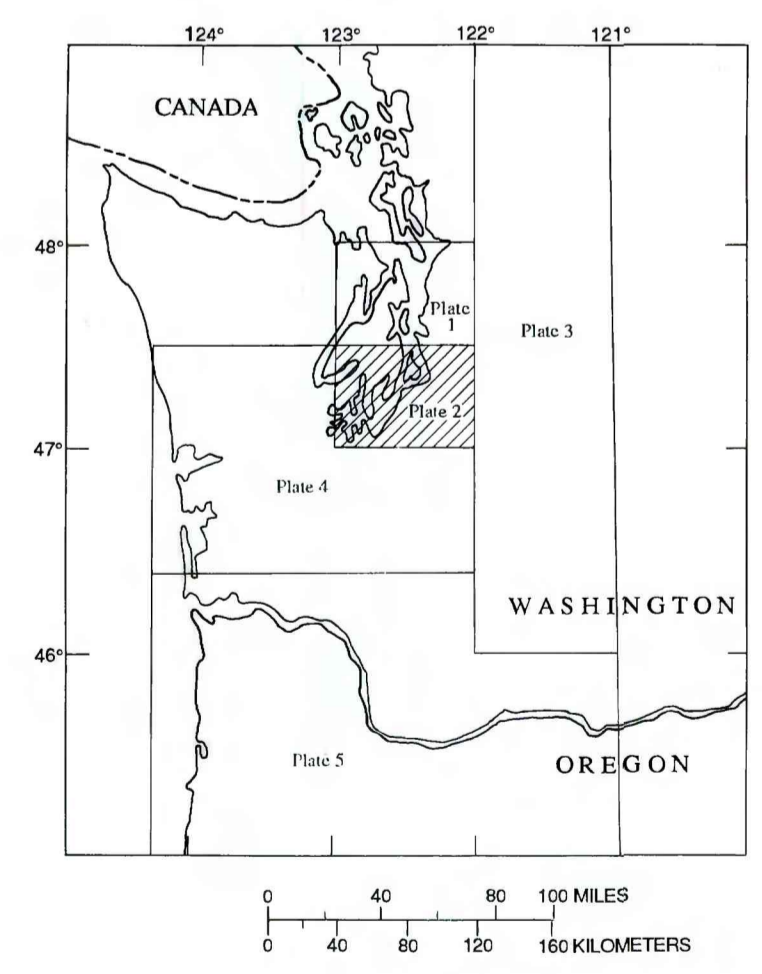




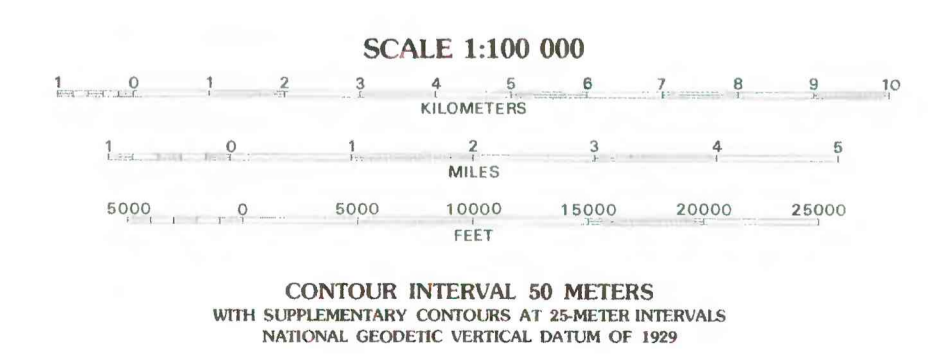
EXPLANATION

Ground failures induced by the April 13, 1949, Olympia earthquake and the April 29, 1965, Seattle-Tacoma earthquake are indicated by the following symbols (1949, closed symbols; 1965, open symbols). Quotations and comments describing selected ground failures (numbered locations) are found in Table 2.

▲ Landslides (1949)	Includes rotational slides (slumps), translational slides, rockfalls, well falls, lateral spreads, flow, and avalanches
△ Landslides (1965)	
■ Ground settlement (1949)	Settlement of the ground surface not clearly related to landsliding
□ Ground settlement (1965)	
◆ Ground cracks (1949)	Includes surface cracks in soil and rock, and cracks in foundations, sidewalks, patios, etc., that are possible indicators of ground settlement and/or incipient landsliding
◇ Ground cracks (1965)	
● Sand boils (1949)	Ejection of ground water or ground water and sediment (sand boils) through cracks or vents at the ground surface
○ Sand boils (1965)	
★ Miscellaneous effects (1949)	Includes effects such as broken underground waterpipes and gas lines, permanent bridge and piling displacements, bent or broken well pipe, disruption or change in water well or spring flow, etc., that are commonly associated with ground failures but are not, in themselves, conclusive evidence of ground failure
☆ Miscellaneous effects (1965)	
19	Ground-failure location number corresponding to location number found in Table 2 (ground-failure descriptions).



Base from U.S. Geological Survey
1:100,000 series (Tacoma)



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LOCATION MAP OF GROUND FAILURES IN THE SOUTHERN HALF OF THE CENTRAL AND SOUTHERN PUGET LOWLAND REGION