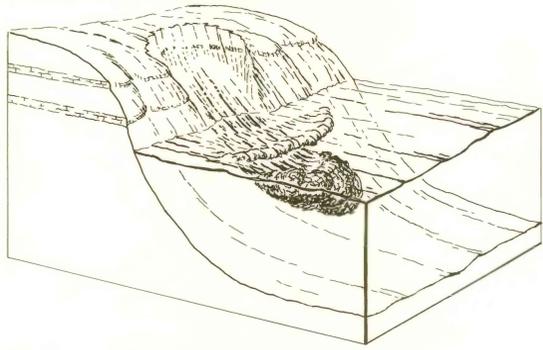
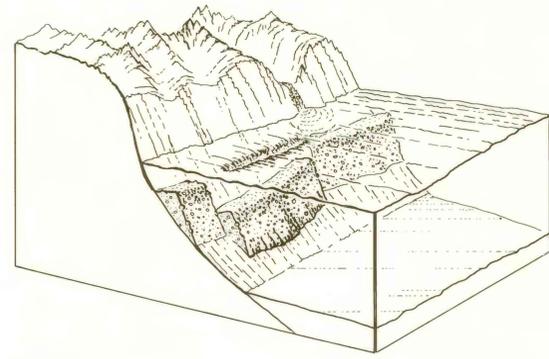


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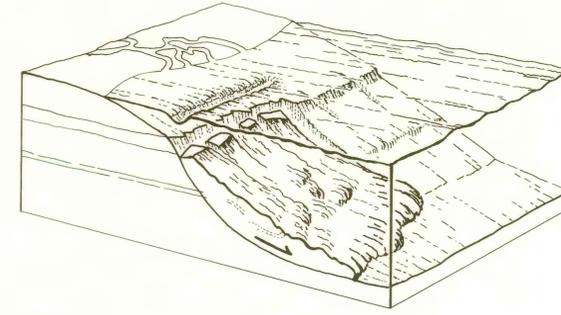
Glide

Subaerial detachment. Wave produced by a glide that begins above water level and enters the sea.



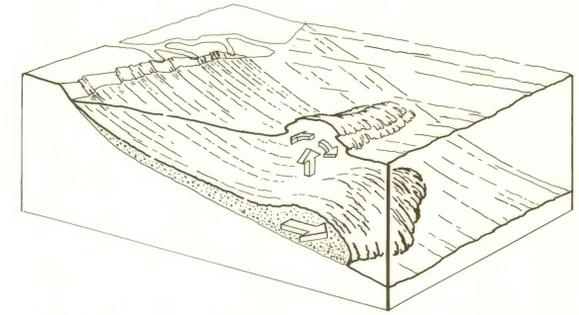
Glide

Submarine detachment. Wave produced by glide that begins below water level.



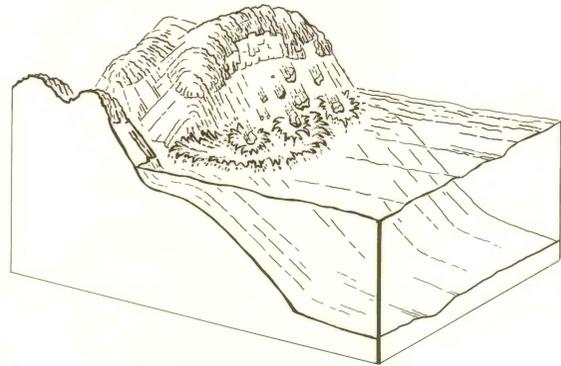
Slump

Rotational slumping. Wave produced by a slump that begins below water level.



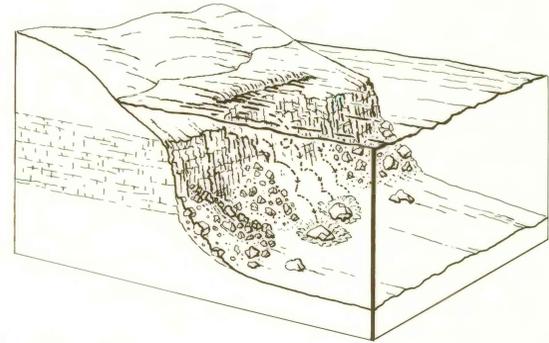
Slide or Flow

Mass movement. Wave produced by a slide that has subaerial and submarine detachment.



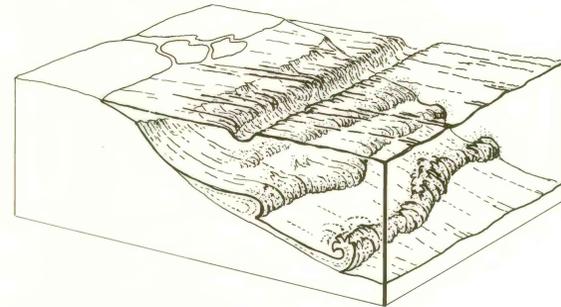
Rock Fall

Subaerial. Disaggregated rock falling into the sea creating waves.



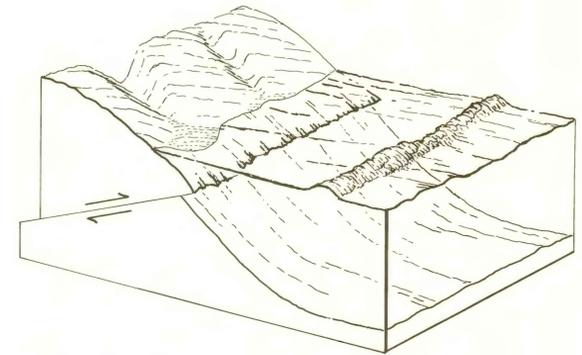
Rock Fall

Submarine. Disaggregated rock falling through the water may create waves at water surface. This type of wave has not been observed.



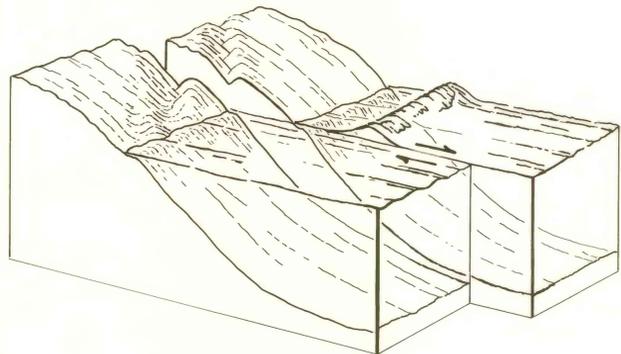
Sediment Gravity Flow

Submarine. Formation of a turbidity current debris flow, causes a dragging down of the water surface.



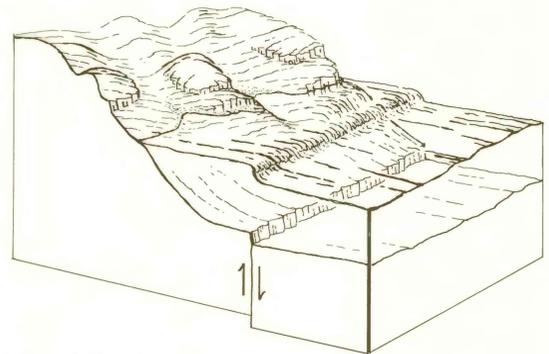
Fault Movement

Thrusting. A wave produced by a rapid near horizontal offset along a thrust fault.



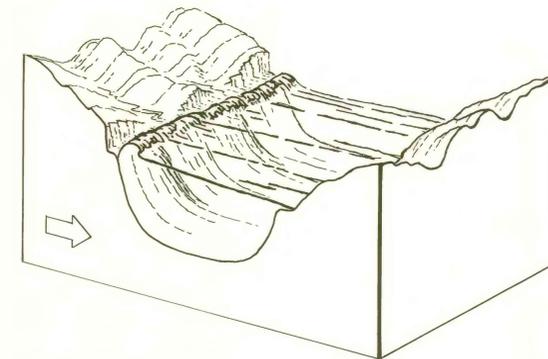
Fault Movement

Transcurrent faulting. A wave generated by a rapid offset along a strike-slip fault.



Fault Movement

Normal faulting. A wave created by a rapid near-vertical offset along a normal fault.



Earthquake Motion

A wave caused by lateral movement during an earthquake.

An impulsive wave is a sudden movement of water, of short duration, caused by earth movement. The earth movement or mass transport can be created by earthquake, movement along a fault, glide, slump, flow or rockfall. This study of impulsive wave generation was begun in 1966 with Gene A. Rusnak and has benefited by a review by Ralph E. Hunter. Drawings not to scale.

References

- Schuster, Robert L, and Krizek, Raymond J. Ed., 1978, Landslides, Analysis and Control, Special Report 176 Transportation Research Board National Academy of Sciences Washington, D.C. 234 pages.
- Scholle, Peter D., and Spearing, Darwin, eds., 1982, Sandstone depositional environments: Tulsa, Oklahoma, American Association of Petroleum Geologists.

This report is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards.

SELECTED TYPES OF IMPULSIVE WAVE GENERATION

by

Tau Rho Alpha and H. Gary Greene

1982