

GEOSEMINAR

A Three-week Journey Along North Pacific

by

Gence Genc

Abstract

Midoceanic ridges in the northeast Pacific are characterized by individual segments formed at various stages of magmatic and tectonic evolution. Discovery of the hydrothermal sites (including actively venting, less active and inactive structures, in those segments) and “megaplumes” (radially symmetric hydrothermal plumes with diameters > 20 km) has led to a broad research effort and an opportunity of scientific expeditions focusing on this area. This seminar reviews a recent scientific cruise to the destination, Juan de Fuca Ridge, Endeavor Segment on the U.S. Navy’s research vessel, R/V Atlantis. The objective of the speaker in this expedition was to gather experimental heat flux data from the black or white smokers from which either “focused” or “diffuse” flow comes out with a certain “unknown” velocity. Submarine experiments with two types of heat flux measurement devices will be shown. Highlights from a visual diary of a hands-on “oceanographer”, such as preparation for a dive in the human-occupied vehicle, Alvin, heading to the hydrothermal vents couple of kilometers below the sea surface and measuring and examining recovered data with on-board facilities will also be presented. The seminar promises to be an exciting journey to discover the ocean floor.

Time: 12:05 - 12:55 pm

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Room: Mason 142A

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