

Letters of Intent: Lau Basin
Target Date: August 15, 2002

Collaborative Research: Hydrothermal and Petrological Investigations of the Eastern Lau Spreading Center

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We will propose for the August 15th target date a combined rock and water sampling cruise to fulfill the objectives of section 4.3.2 of the Lau Basin implementation plan. While we are still working out a detailed plan previous mapping and water column studies carried out as part of the implementation plan. The proposed work will include dredging and rock coring with water column sensors on the wires, CTD-rosette profiling of the water column, and limited follow-up of promising sites with appropriate imagery. The aim is to have a thorough characterization of potential plumes in the water column and the along-strike petrology of the spreading axis, identification and photo coverage of hydrothermal vents, and preliminary information on the distribution of macrofauna. All data would be available to subsequent cruises designed for ROV or submersible investigation of the vent fields.