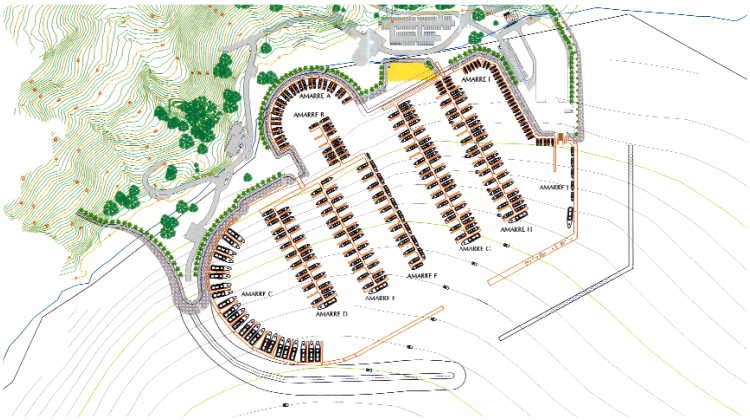
Papagayo Marina, Costa Rica

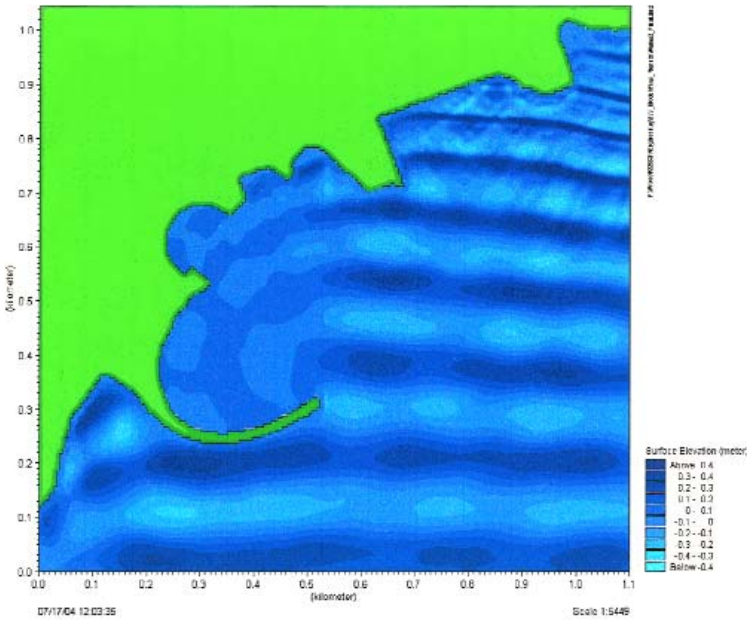
coastal engineering

COASTAL SYSTEMS INTERNATIONAL

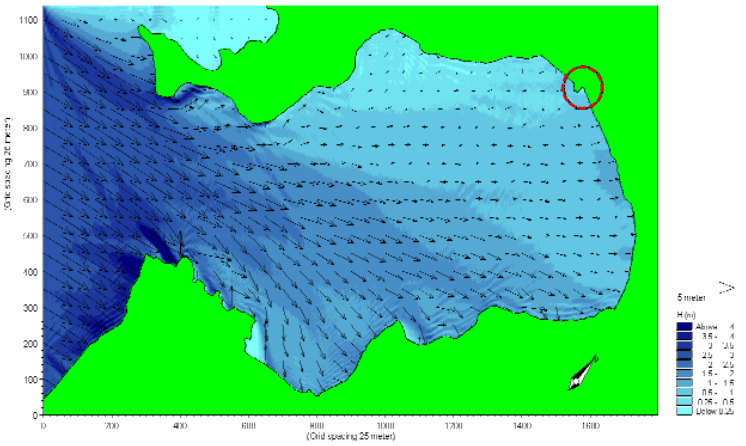
Coastal Systems International, Inc. provided coastal engineering services related to the design of the Papagayo Marina Project, a 350-slip marina in Bahia Culebra on the Pacific coast of Costa Rica. Comprehensive wave statistical analysis and numerical wave modeling were conducted to determine the wave climate in the project vicinity. Boat agitation due to long period swells from the Pacific was a major concern and a number of breakwater concepts had been proposed. State-of-the-art MIKE21 Boussinesq Wave modeling was used to evaluate the wave diffraction effects of the breakwaters, allowing for their optimal configuration. Dredging of the marina basin and conceptual design of the marina layout, breakwater structures, and quay wall structures were provided by Coastal Systems in addition to a construction cost estimate.



Marina Conceptual Design



Wave Model of Papagayo Marina



Wave Model of Bahia Culebra Showing Papagayo

Client:	P.P. Holdings, Ltd.
Location:	Bahia Culebra, Costa Rica
Date of Completion:	Ongoing
Construction Cost:	$30 million Est.