

**ASBPA FALL 2010 TECHNICAL CONFERENCE
CHILE EARTHQUAKE AND TSUNAMI OF FEBRUARY 2010 – AFTERMATH
OBSERVATIONS AND LESSONS LEARNED**

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ABSTRACT

The Coastal, Ocean, Port and River Institute (COPRI) of the American Society of Civil Engineers (ASCE) deployed a team of engineers from consulting firms, government, and academia to assess and learn from the effects of the 27 February 2010, magnitude M_w 8.8 earthquake and subsequent tsunami which struck off the coast of central Chile. The earthquake occurred off the west coast of Chile, about 200 miles SW of Santiago, the capital of Chile. Significant damage to buildings, roads, bridges, ports, and other lifeline facilities were reported. A tsunami generated by the earthquake resulted in extensive damage to coastal communities and facilities within a 125 mile radius of the epicenter. The tsunami created a run-up of 30 ft. along much of the coast with some measurements showing a run-up of 100 ft.

Mr. Boudreau was a member of the ASCE COPRI Investigation Team that visited a number of ports and harbors in central Chile and met with engineers from local universities and agencies. The primary purpose of the Team was to assess and learn from the performance of port infrastructure including waterfront, storage, and protective structures, handling equipment, foundations, and utilities. The team also investigated the tsunami impacted areas to assess the run-up heights, performance of coastal structures, and scour and deposition of sediments. The goal of the Team's reconnaissance was to identify infrastructure that performed poorly as well as that which performed as intended and to recognize the performance of older systems that have not been designed using current approaches. The presentation will focus on the team's observations and lessons learned from coastal, geotechnical, and structural standpoint.

AUTHOR BIO

Russ Boudreau has over 25 years of experience in coastal and ocean engineering. He is an Associate Vice President and Senior Coastal Engineer with Moffatt & Nichol in Long Beach, California. His responsibilities have included planning, engineering and construction management for a broad range of beach nourishment, regional sediment management, wetland restoration, water quality and navigation improvement projects in the U.S. and throughout the Pacific Rim. Mr. Boudreau is a registered civil engineer in the States of California and Hawaii, and has a Master of Engineering degree from the University of California at Berkeley.