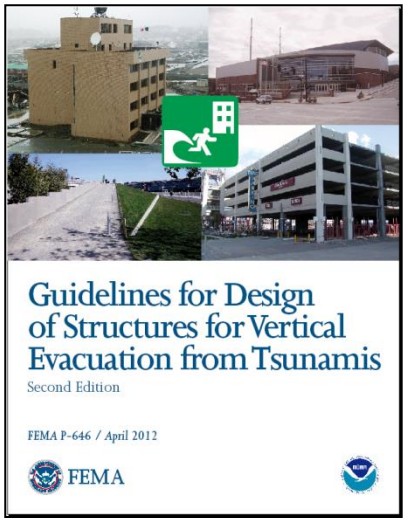
# WEBINAR ON THE FEMA P-646 REPORT:
## *Guidelines for Design of Structures for Vertical Evacuation from Tsunamis*

**EVENT AND REGISTRATION INFORMATION**

**Wednesday, September 10, 2014**
**12:00 – 1:30 pm PDT**

**Purpose.** The Purpose of the webinar is to provide an overview of the planning, development, and design of structures for vertical evacuation from tsunamis. After a brief overview of the tsunami hazard, webinar participants will be introduced to the concept of vertical evacuation from tsunamis. Examples will be illustrated from recent tsunami events. The webinar will then provide an overview of FEMA P-646 report, *Guidelines for Design of Structures for Vertical Evacuation from Tsunamis (Second Edition)*, which was developed under the ATC-64 Project and updated under the ATC-79 Project in 2012. Recent development of a new chapter proposed for ASCE 7-16 on Tsunami Loads and Effects will be covered as it relates to tsunami vertical evacuation structures. The FEMA P-646 and ASCE 7 provisions will be illustrated through their application to development and design of a proposed vertical evacuation structure at Ocosta Elementary School in Washington. This Safe Haven project was initiated, planned, developed and designed with extensive community involvement, potentially leading to construction of the first U.S. structure providing vertical evacuation refuge from tsunamis.




**Intended Audience.** This webinar has been designed for building officials, emergency managers, engineers, architects, town planners, and others who may be involved in developing tsunami evacuation options for coastal communities.

**Professional Development Hours (PDHs).** Each registrant of the FEMA P-646 webinar will receive an electronic certificate documenting 1.5 PDHs. Each additional participant sharing the registrant's computer may obtain PDH documentation using a form that will be provided following the webinar.

**Technical Requirements.** A computer with access to the internet and a phone line are required.

**Presenters.** **Ian N. Robertson, S.E.**, is Professor of Structural Engineering at the University of Hawaii. He has 30 years of research and design experience in the performance of structures during extreme events including earthquakes, hurricanes and tsunamis. Dr. Robertson was on the ATC-64 team that developed the first edition of FEMA P-646 (June, 2008) and recently led the ATC-79 team that developed the second edition (April, 2012). **Cale Ash, P.E., S.E.,** is an Associate Principal with Degenkolb Engineers in Seattle. His work at Degenkolb has focused on earthquake engineering for both new and existing buildings. He is currently working on the first tsunami vertical evacuation building in U.S., which will be located on the Washington coast. He was a technical advisor on Project Safe Haven which developed tsunami vertical evacuation concepts for two counties on the Washington coast. **John D. Schelling** is the Earthquake, Tsunami, and Volcano Programs Manager for the Washington State Military Department's Emergency Management Division. He is responsible for coordinating the seismic and associated hazard risk reduction efforts between federal, state, tribal, and local partners with a goal of increasing community resilience.

**Registration Information.** The webinar is free to all who register, and limited to 500 registrations. Interested persons may complete and return the Registration Form below, or register online at www.ATCouncil.org at the Events page.

**Webinar Handouts.** Registrants will have access to the electronic (PDF) copy of the FEMA P-646 report, and to the electronic (PDF) training presentation in advance of the webinar. Paper copies of the FEMA P-646 report may be purchased through the ATC Online Store (www.ATCouncil.org), or ordered free of charge by contacting FEMA (phone: 1-800-480-2520).

## REGISTRATION FORM: FEMA P-646 Webinar • Wednesday, September 10, 2014 Noon PDT

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ORGANIZATION _____

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FEMA P-646 Webinar Site Registration*: # of sites_____

Please mail your completed order form with the appropriate payment, or fax it, to:
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