

Western States Seismic Policy Council 2014 Lifetime Achievement Award in Earthquake Risk Reduction

Gary Chock, S.E.

ASCE Structural Engineering Institute Fellow

Member, Hawaii State Earthquake Advisory Committee

Hawaii's Gary Chock has a multiple-decades long history of dedicated public service to the State of Hawaii in the areas of earthquake and tsunami mitigation. His contributions have assisted earthquake risk reduction in both the private and public sectors.



As President of Martin & Chock, Inc., Mr. Chock has been the principal investigator for the firm's research work on multi-hazard analysis and planning, with emphasis on use of GIS analysis, building damage, and building performance studies. His work has involved tsunami, earthquake and hurricane hazard research, building risk assessments, hazard mitigation planning, coastal flooding hazards, building code development, and emergency response planning. For the past 3 years, Mr. Chock also has served as chairman of the newly formed American Society of Civil Engineers (ASCE) committee on Tsunami Loads and Effects, which has just completed a formal draft of a new chapter on Tsunami Loads

and Effects (TLE) for inclusion in the 2016 version of the ASCE7 standard on building design loads. The TLE chapter presents comprehensive design provisions for Probabilistic Tsunami Hazard Assessment and Performance Based Tsunami Design of coastal buildings and other structures for tsunami loading and scour; if approved and incorporated into the standard, it will then become part of the 2018 International Building Code, which will form the basis for all building codes in the United States. Not only will the standard lead to significant improvements in the performance of critical facilities and larger buildings in tsunami inundation zones, it also will serve to improve the resilience and recovery of coastal communities in these states after a damaging tsunami.

Mr. Chock is a charter member of the Hawaii State Earthquake Advisory Committee (HSEAC), which was established in 1990 under the auspices of the State of Hawaii's Department of Defense, Hawaii State Civil Defense Agency, and which serves as Hawaii's seismic council. HSEAC is comprised of volunteer members whose areas of expertise include earthquake science, engineering, hazard mitigation, planning, and emergency management. Mr. Chock has maintained 23 years of continuous service with HSEAC, and served as its chairperson during the committee's first seven years, guiding it through its formative period. He also functioned as Team Leader for the 2011 Japan and 2010 Chile tsunamis reconnaissance teams, which provided valuable post-tsunami engineering and building information to help mitigate future risks.

In addition to the previously mentioned activities, Mr. Chock has volunteered for many other earthquake/tsunami risk reduction committees and projects over the years, including: the Applied Technology Council Project 79-1 Update of FEMA P646, *Guidelines for Designs of Structures for Vertical Evacuation from Tsunamis*; service on the Oversight Committee for the National Institute of Building Sciences, Development of a Tsunami Risk Assessment Model for HAZUS-MH; the *Multi-Hazard Pre-Disaster Mitigation Plan* for the City and County of Honolulu; Development of Performance-Based Tsunami Engineering (Co-Principal Investigator); *Structural Risk and Vulnerability Assessment of State of Hawaii Critical Facilities*; *University of Hawaii Systemwide Hazard Mitigation Plan*; *Investigation of Post and Pier Earthquake Damage and Development of Incremental Retrofits for Hawaii Single-Family Residences*; and Hawaii Building Database Integration for Honolulu, Maui, and Hawaii Counties. In addition to his activities with the ASCE, Mr. Chock has had professional affiliations with the Earthquake Engineering Research Institute, the National Institute of Building Sciences Building Seismic Safety Council, and the International Building Code Structural Committee. He also developed the Emergency Operations Plans for the City of Honolulu, and the counties of Maui and Kauai.