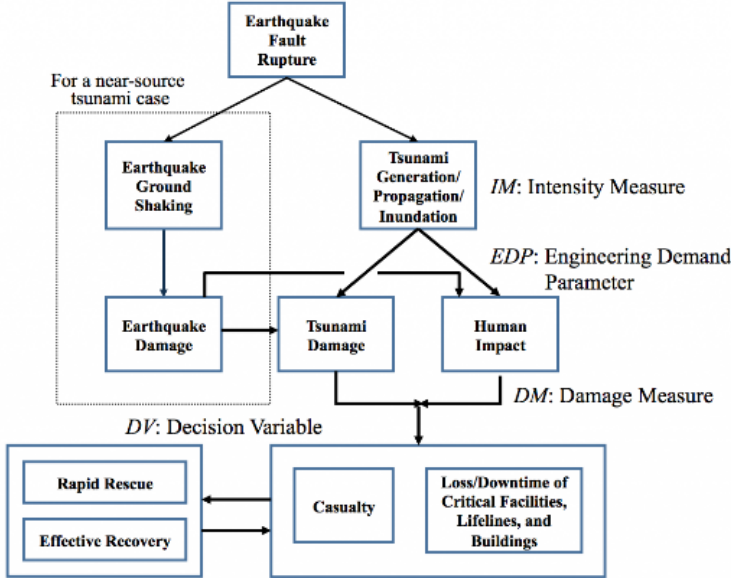


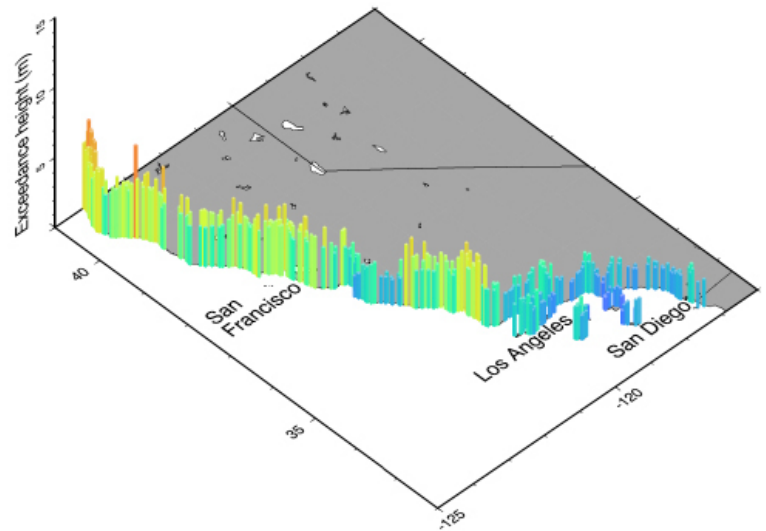
Ostuchi, Iwate Prefecture, Japan (AP)

PROGRAM GOALS

- Develop an effective methodology for damage analyses for critical structures, lifelines, and important public facilities
- Reduce loss of life, delays in emergency response, and long-term economic impacts
- Augment existing tsunami research efforts
- Employ Performance-Based Tsunami Engineering (PBTE) to expand and extend the existing Performance-Based Earthquake Engineering (PBEE) Methodology DEVELOP practical guidelines for researchers and practitioners



Performance-Based Tsunami Engineering (PBTE) Methodology



Probabilistic Tsunami Hazard Analysis
Example: 475 Year Return Period

PROGRAM TASKS

- **SCENARIO-BASED ANALYSIS** - develop a tool for scenario-based hazard analysis
- **TSUNAMI HAZARDS** - carry out analysis for physical and simulation-driven tsunami uncertainties
- **TSUNAMI IMPACTS** - develop tools to evaluate Damage Measure for critical coastal structures and lifelines
- **RECOVERY EFFORTS** - develop an effective tool used for immediate damage assessment and optimal recovery tactics for critical coastal facilities and infrastructures
- **DESIGN GUIDELINES** - develop guidelines for new bridges subjected to tsunami loads

SPONSORS

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- Federal Highway Administration & 5 western states: California, Oregon, Washington, Alaska, and Hawaii