

American Samoa Earthquake and Tsunami Damage Federal Response Activities, DOI Personnel & Facilities Update

October 13, 2009

Event/Fatalities/Injuries/Damage:

On Tuesday, Sept. 29, 2009, a earthquake with a magnitude of 8.0 on the Richter Scale occurred 120 miles south-southwest from American Samoa, about 13 kilometers below the seabed at about 6:48 a.m. SST (1:48 p.m. Eastern DT). The earthquake was followed by a tsunami that produced several large waves causing 32 confirmed deaths, more than a hundred injuries and the destruction of about 200 homes and businesses. While there are still about 400 persons living in shelters, most of the displaced persons have been invited to live with friends and families on the island. Major damage/destruction occurred to the coastal areas of Tutuila and other islands of American Samoa, a U.S. insular territory. The tsunami also impacted surrounding islands, including Western Samoa and Tonga.

FEMA and Interior Response Activities:

American Samoa received an expedited Federal Major Disaster Declaration on Sept. 29, 2009 making disaster funds available for Individual assistance, Public assistance and Hazard Mitigation. The Federal Coordinating Officer (FCO) established a Joint Field Office (JFO) on the island where all Federal response and recovery operations are being coordinated. The FCO assumed operational control of response and recovery operations from FEMA Region IX's Response Coordination Center which has transitioned to a support posture. The Federal Emergency Management Agency announced late this week that response operations have concluded and the incident has moved to the recovery phase. FEMA's National Response Coordination Center has shifted back to normal, steady state operations.

The U.S. Coast Guard, the Department of Defense and Hawaiian Airlines provided relief flights to the island, bringing in responders and supplies with 24-hours of the tsunami. While much of the island's infrastructure was damaged, response teams were able to get water facilities, electricity and communications re-established, at least to a workable level with a few days of the disasters.

The Lyndon Baines Johnson Hospital was able to remain open throughout the disaster using generator power. Within 48-hours, relief medical supplies and deployed medical teams arrived on American Samoa to supplement the island staff, assisting with the treatment of many patients who were injured during the disaster.

The U.S. Coast Guard conducted a survey of Pago Pago Harbor and declared the seaport open. The US Navy diverted the *USS Ingraham* to provide as needed logistical and helicopter support. The Federal Aviation Administration reported that the main airport on American Samoa was operational with some generator support for lighting. Crews cleared the runways of debris and aircraft carrying relief supplies were able to land on the island within 24-hours of the tsunami.

Road washouts and debris are prevalent. The bridge leading to the town of Leona was damaged but has been repaired to allow emergency traffic to use during relief efforts.

When the tsunami hit, **Interior's Office of Emergency Management** (OEM) increased its operational posture to keep abreast of the ongoing events as response and recovery operations commenced. An OEM representative was deployed to FEMA's National Response Coordination Center to act as a liaison between FEMA and DOI. The Interior Operations Center increased staffing by activating two members of the Department's Incident Support Team to monitor activities, track teams, and prepare situational awareness reports for Departmental leadership. OEM conducted daily Emergency Management Council meetings with office and bureau representatives to discuss and plan response activities and OEM, bureau and office personnel participated in daily FEMA video-teleconferences. The Interior Operations Center produced twice daily reports to update the ongoing tsunami operations, as well as provide input for the FEMA/DHS Situation Reports.

Shortly after the tsunami flooded coastal areas of the island, **Interior's Assistant Secretary for Insular Areas**, Tony Babauta and OIA Director Nik Pula went to American Samoa to assist with the coordination of disaster response operations between the Government of American Samoa, the Department of the Interior and other Federal responders. While on the island they visited several small villages to survey damages. Interior's **Office of Insular Affairs** employees in American Samoa worked with the local government's Emergency Management Office to assist in coordinating with federal agencies, one of them serving as chief-of-staff to the director of the island's EM office.

The **National Park Service** has 72 personnel working on response and recovery activities. These employees have been assessing damage and stabilizing park infrastructure and exhibits, assisting with Search and Rescue activities and helping clear several villages that were heavily damaged by the onslaught of waves. The NPS Visitor Center and headquarters on Tutuila received extensive damage from tsunami surge flooding and is uninhabitable.

Most recently, NPS divers surveyed sewage outfall lines; and began designing a replacement boat ramp to facilitate access to remote park resources. Cultural resources saturated from the tsunami have been prepared, frozen and transported to Honolulu via an Air Force C17.

The NPS Western Incident Management team deployed to American Samoa on October 1 to offer their assistance and manage response operations. The Team, comprised of 10 NPS personnel and supplemented by 1 Public Health Service Officer, 2 Critical Incident Stress Management Counselors and 3 Cultural Resource Specialists is managing NPS relief efforts for this disaster.

Interior ESF4 staff conducted a needs assessment with the local fire department, with whom they've worked before. Based on a preliminary assessment upon arrival, no significant issues exist for ESF4 and no resource orders for firefighting resources are anticipated.

All of the **U.S. Geological Survey** post-tsunami investigation team members from have arrived on American Samoa with deployment planned through Oct. 18. USGS scientist

Bruce Jaffe arrived Oct. 4 and spent a week with the International Tsunami Survey Team collecting data on an island-wide basis of tsunami run-up, inundation, flow depth and direction, and wave heights. In addition the Team made critical observations on tsunami impacts to coastal infrastructure and natural environments.

Additional USGS personnel arrived on October 8, 2009 accompanied by Walter Dudley, executive director of the Tsunami Museum in Hilo HI and a filmmaker, who is working with USGS to document the work of the survey teams and interview survivors to develop future preparedness instructional materials. Their team has undertaken detailed studies on morphological change, sediment transport, detailed topographic mapping.

A two-person USGS field party arrived in Pago Pago on Oct. 8 to temporarily deploy a half dozen seismometers in American Samoa in order to detect aftershocks and collect valuable data for determining ground motion attenuation, which is a key parameter for completing a seismic hazard assessment for both Guam and American Samoa. The team is getting good cooperation from local National Weather Service office for logistics support and National Park Service for siting. They have been able to capture the strong motion from a number of large aftershocks, the biggest being a magnitude-5.9.

Analysts at the USGS National Earthquake Information Center provided a range of rapid earthquake information products to support emergency response and relief operations. The information products for the Samoan quake are on the event webpage at <http://earthquake.usgs.gov/eqcenter/eqinthenews/2009/us2009mdbi/> . A map of aftershocks from the Samoa earthquake can be found at http://earthquake.usgs.gov/eqcenter/recenteqswww/Maps/10/185_-15.php). USGS is the lead Federal government agency for earthquake monitoring in the U.S. and around the globe. Additional information is available at <http://earthquake.usgs.gov>.

With the activation of the International Charter for Space and Major Disasters for both the Samoa and Sumatra earthquakes, the USGS worked with DHS, NGA and others in coordinating collection and dissemination of imagery and other remote sensing data for use in response activities through the USGS Hazards Data Distribution System (<http://hdds.usgs.gov/hdds/>).

USGS continues to monitor earthquake activity in the area. A large swarm of earthquakes has been occurring in the area surrounding Vanuatu, about 1400 miles to the west of American Samoa, which has generated at least one tsunami warning, but did not impact the Samoan Island Group.

Interior Personnel:

Immediately after the Sept. 29, 2009 tsunami struck American Samoa, supervisors on the island began the task of accounting for all Department of the Interior personnel who live and work on the main island of Tutuila and other smaller islands in the vicinity. There were 15 National Park Service employees and 2 employees of the Office of Insular Affairs (OIA) on the island at the time. Within hours, all employees were found to be safe and uninjured. In addition, U.S. Fish and Wildlife Service has a few personnel who monitor refuges on nearby islands, but USFWS Region 1 reported there were no injuries to USFWS personnel.

As soon as the situation stabilized, DOI personnel began checking on the 40 island residents who volunteer at the National Park of American Samoa. All volunteers were quickly accounted for but it was found that one volunteer was injured during the tsunami when the car she was driving was turned over by a wave. She was treated at the local hospital and was later released. The home of one of the NPS employees was extensively damaged by the water, and at least 4 of the volunteers' cars were flooded.

Facilities:

The NPS Visitor Center and headquarters on Tutuila received extensive damage from tsunami surge flooding and is uninhabitable. A GSA Real Estate specialist sent to the island to assist with recovery efforts has successfully leased space for NPS to establish a replacement visitor center and supervisors office. NPS also has activities on the islands of Tau, Ofu and Olosega and personnel are continuing to assess the situation on these other islands.

The private building where many NPS and the OIA employees live received extensive damage to its ground floor from flooding; however, the upper story is habitable.

Background:

American Samoa is a U. S. insular territory with a population of approximately 65,000 people. The Department of the Interior is the federal agency charged with coordinating federal policy for the social, economic and political development of the U.S. insular territories in the Pacific and Caribbean and administers all congressional funding for these islands. The Office of Insular Affairs carries out the Secretary's statutory responsibilities for these islands.

Images of damage on American Samoa are available at
<http://picasaweb.google.com/qrkpub/SamoaTsunami>

<http://www.nzherald.co.nz/>

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