

U.S. ENVIRONMENTAL PROTECTION AGENCY  
POLLUTION/SITUATION REPORT  
American Samoa Earthquake and Tsunami - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region IX

**Subject:** POLREP #3  
American Samoa Earthquake Tsunami Report  
American Samoa Earthquake and Tsunami

Pago Pago, American Samoa, AS  
Latitude: -14.2794000 Longitude: -170.7006000

**To:**  
**From:** Mary T. Aycock, Situation Unit Leader  
**Date:** 10/1/2009  
**Reporting Period:** 0800-1700 Hrs

## 1. Introduction

### 1.1 Background

<b>Site Number:</b>	American Samoa	<b>Contract Number:</b>	NA
<b>D.O. Number:</b>	NA	<b>Action Memo Date:</b>	9/30/2009
<b>Response Authority:</b>		<b>Response Type:</b>	Emergency
<b>Response Lead:</b>	FEMA	<b>Incident Category:</b>	Removal Assessment
<b>NPL Status:</b>	Non NPL	<b>Operable Unit:</b>	American Samoa
<b>Mobilization Date:</b>	9/30/2009	<b>Start Date:</b>	9/30/2009
<b>Demob Date:</b>	9/30/2010	<b>Completion Date:</b>	
<b>CERCLIS ID:</b>	NA	<b>RCRIS ID:</b>	NA
<b>ERNS No.:</b>	NA	<b>State Notification:</b>	American Samoa
<b>FPN#:</b>	NA	<b>Reimbursable Account #:</b>	NA

#### 1.1.1 Incident Category

Earthquake  
Tsunami

#### 1.1.2 Site Descrip

All waves struck the island and Pago Pago, the main village. The maximum height of the waves was estimated at 15 – 20 feet and is reported to have reached a mile inland. Damage is widespread with 30 known fatalities, hundreds injured and many pulled out to sea. More than 60 aftershocks have been reported.

##### 1.1.2.1 Location

American Samoa

##### 1.1.2.2 Description of Threat

On 09/29 at 1048 hrs (PST) an 8.0 magnitude earthquake occurred 120 mi southwest of American Samoa. The 6: 48 am local time (1048 hrs PST) earthquake triggered a tsunami that struck American Samoa (population 65,000) with a series of four waves. All waves struck the island and Pago Pago, the main village. The maximum height of the waves was estimated at 15 – 20 feet and is reported to have reached a mile inland. Damage is widespread with 30 known fatalities, hundreds injured and many pulled out to sea. 60 aftershocks have been reported.

##### 1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

EPA is in the process of making this assessment. Chris Reiner (OSC) has been deployed to begin the assessment.

## 2. Current Activities

## 2.1 Operations Section

### 2.1.1 Narrative

On 09/29 at 1048 hrs (PST) an 8.0 magnitude earthquake occurred 120 mi southwest of American Samoa. The 6: 48 am local time (1048 hrs PST) earthquake triggered a tsunami that struck American Samoa (population 65,000) with a series of four waves. All waves struck the island and Pago Pago, the main village. The maximum height of the waves was estimated at 15 – 20 feet and is reported to have reached a mile inland. Damage is widespread with 30 known fatalities, hundreds injured and many pulled out to sea. 60 aftershocks have been reported.

### 2.1.2 Response Actions to Date

EPA has deployed personnel to American Samoa to perform a Rapid Needs Assessment:

#### Operational Status:

- EPA R9 is operating under a Pre Declaration Disaster Surge Account for \$75,000 (7220SU-AS-EPA-02), covering RRCC activation and the rapid needs assessment on AmSam. The projected end date for this MA is 10/09/2009. The Region has also received a new, post declaration MA (1859DR-AS-EPA-02) for the same activities for \$10,000 to get us started. The projected end date for this MA is 10/10/2009. The Region's finance personnel are developing a more accurate cost estimate for FEMA, so that the post declaration MA can be revised with adequate funding.
- FEMA's RRCC is running 24 hour operations. Lance Richman staffed the ESF-10 desk until 0700 on 10/01. Barbara Lee relieved Lance at 0700 hrs. The phone number at the ESF-10 desk is 510.627.7709. The R9 EOC will be staffed from 1000-2000 on 10/3 and 10/4.
- OSC Chris Reiner arrived in AS as ESF-10 support at 2300 SST on 9/30, with one EPA START contractor. OSC Reiner indicates (through OSC Weden) communications are limited to: periodic use of a hard-line telephone at his hotel; and, intermittent access to email and the internet via Blackberry or air card.
  - A United States Coast Guard C-130, from Coast Guard Air Station Sacramento, Calif. arrived at 0700 30SEP in Pago Pago, American Samoa. This flight carried Governor Tulafono, who was in Hawaii at the time of the tsunami, the initial response team of 50 personnel including FEMA's Federal Coordinating Officer, Kenneth J. Tingman, Defense Coordinating Officer Col. James George, as well as team supplies for seven days.
  - A second United States Coast Guard C-130 from Coast Guard Air Station Barbers Point, Calif. arrived in American Samoa at approximately 1900 SST. This flight included additional commodities and FEMA personnel including the Incident Management Assistance Team (IMAT), a regionally-based incident 'strike team' and the Disaster Medical Assistance Team (DMAT).
  - A Hawaii National Guard C-17 cargo flight from Honolulu arrived in American Samoa at 1 a.m. local time (8 a.m. EDT) on 01-OCT. This flight included over 40 National Guard personnel, four vehicles, hazmat materials, communications equipment, cots, blankets, food and water.
  - An additional Hawaii National Guard C-17 cargo flight arrived at 4 a.m. SST on 01-OCT. This flight included 20 additional National Guard personnel, five vehicles, hazmat materials, communications equipment, cots, blankets, food and water.
  - A third National Guard C-17 from McChord AFB in Bothell, WA is scheduled to arrive late tonight (01-OCT), local American Samoa time. This flight includes FEMA and National Guard personnel including National Guard CERF-P Search and Rescue teams, vehicles, trailers and cargo.
  - This United States Navy frigate USS Ingraham arrived in American Samoa on 30SEP with food, water, commodities and two Seahawk helicopters available for search and recovery operations. FEMA's mission is to support our citizens and first responders to ensure that as a nation we work together to build, sustain, and improve our capability to prepare for, protect against, respond to, recover from, and mitigate all hazards.
- EPA R9 will provide situational awareness from the Regional EOC as information becomes available. Bret Moxley is the duty officer this week.
- EPA R9 will mobilize available drinking water engineers to provide technical assistance as needed.
- Contact was made with USGS to acquire latest imagery
- Data gathering and processing:
  - Updated Maps with RMP, FRP, NPL, NPDES facilities, gas stations, power plants, and other critical facilities were produced and are now posted on OSC.net.
  - Updated aerial photos of the Pago Pago and Tafuna areas of Tutuila are posted on OSC.net
  - Map Data still needed includes drinking water well locations, sewer lift stations and minor site locations. Production of these maps is in progress.

#### Drinking Water Issues:

-Many of the outlying villages (in the east and west) are without water or have water with little pressure (this includes portions of the central system). Estimated to be tens of thousands of people affected.

-This is due to the many line breaks that have occurred.

-Coliform testing has been done at many locations at the central system and all have come back negative.

-There is still concern about the quality of the water due to the line breaks since there are many potential contamination sources around island that can get sucked into the pipes.

-ASPA is working around the clock to fix the leaks

-ASPA has brought generators to some well sites that lacked power, but the generators are very old and

they don't expect them to last long

- There are 2 ASEPA representatives stationed at the EOC
- There has been an estimation, by ASPA, that water and power could be out for 2 months in the outlying villages
- Water buffaloes have been brought to some of these villages that are lacking water.
- ASEPA inquired about portable RO units to bring to these outlining areas to get more reliably safe water, especially if the bottled water supply runs low.

### 2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

Not Applicable

### 2.1.4 Progress Metrics

<i><b>Waste Stream</b></i>	<i><b>Medium</b></i>	<i><b>Quantity</b></i>	<i><b>Manifest #</b></i>	<i><b>Treatment</b></i>	<i><b>Disposal</b></i>

## 2.2 Planning Section

### 2.2.1 Anticipated Activities

EPA has activated the EOC in Region 9. The Regional Response Center has also been activated in Oakland.

#### 2.2.1.1 Planned Response Activities

EPA is in the process of deploying personnel to perform a Rapid Needs Assessment. Chris Reiner of Region 9 has been dployed to make the assessment.

#### 2.2.1.2 Next Steps

Schedules have been prepared for the weekend to man to EOC and the RRCC.

#### 2.2.1.3 ISSUES

On 09/29 at 1048 hrs PST, (0648 Samoa Standard Time) an 8.0 magnitude earthquake occurred 120 mi southwest of American Samoa. The 6:48 am local time (1048 hrs PST) earthquake triggered a tsunami that struck American Samoa (population 65,000) with a series of four waves. All waves struck the island and Pago Pago, the main village. The maximum height of the waves was estimated at 15 – 20 feet and is reported to have reached a mile inland. Damage is widespread with 31 known fatalities on American Samoa, hundreds injured and many pulled out to sea. Over 60 aftershocks have been reported, including nine aftershocks ranging from magnitudes 5.0 to 5.7 in the past 24 hours.

- FEMA reports power is working in the western part of the of the island of Tutuila, but is out in the eastern portion of the island, which includes Paga Pago. Power is not expected to be restored for days to weeks in this area.
- LBJ Hospital is operational. As of 1900 Samoa Standard Time (SST) on 30SEP, 129 injuries treated: 4 operated on, 19 admitted.
- The only international airport in AS is operational; a limited supply of jet fuel may become a logistical problem.
- Communication is spotty; only cell phone service is local from Samoa Teleco or Bluesky,
- Local US Coast Guard personnel report no large oil or hazmat releases.
- Water commodities and electrical infrastructure appear to be main issues. Power is still out over much of the island and is expected to be out for up to a month in some areas.
- The following information was provided by Nate Ilaoa/ASEPA via Jason Gambatese/R9 at 15:23 PST-01-OCT, regarding drinking water infrastructure.

-Many of the outlying villages (in the east and west) are without water or have water with little pressure due to numerous line breaks (this includes portions of the central system). Estimated to be tens of thousands of people affected.

-Coliform testing has been performed at many locations on the central system and all have come back negative.

-There is still concern about the quality of the water due to the line breaks since there are many potential contamination sources around the island that can get sucked into the pipes.

-American Samoa Power Authority (ASPA) is working around the clock to fix the leaks

-ASPA has brought generators to some well sites that lacked power, but the generators are very old and they don't expect them to last long

-There are 2 ASEPA representatives stationed at the EOC

-There has been an estimation, by ASPA, that water and power could be out for 2 months in the outlying villages

-Water buffaloes (portable tanks w/gasoline-powered pump systems) have been brought to some of these villages that are lacking water.

-ASEPA inquired about portable RO units to bring to these outlining areas to get more reliably safe water, especially if the bottled water supply runs low.

- The Chicken of the Sea packing plant is closed but according to the company (via Fox news) was not damaged.
- YouTube and news videos show many damaged buildings and cars as well as other debris
- Weather – mostly cloudy with isolated scattered showers, highs in mid 80s with 70% - 80% or more humidity, Southeast winds 10 – 15 mph, becoming variable Friday to 10 mph.
- FEMA reports that 12 shelters have been established for residents, as of 1900 SST 30 SEP, 1976 persons were reported as displaced.
- Pago Pago and the village of Leone were reportedly the hardest hit areas
- A section of the Leone/Auma bridge is down making transport to Leone and areas north of Leone difficult. Repairs are in progress (via Samoa News)

### **2.3 Logistics Section**

No information available at this time.

### **2.4 Finance Section**

No information available at this time.

### **2.5 Other Command Staff**

#### **2.5.1 Safety Officer**

#### **2.6 Liaison Officer**

#### **2.7 Information Officer**

##### **2.7.1 Public Information Officer-No reports this period**

##### **2.7.2 Community Involvement Coordinator-No reports this period**

### **3. Participating Entities**

#### **3.1 Unified Command**

EPA is coordinating its efforts under FEMA.

#### **3.2 Cooperating Agencies**

EPA is working with FEMA and local authorities in American Samoa.

### **4. Personnel On Site**

Chris Reiner has been deployed as OSC.

### **5. Definition of Terms**

No information available at this time.

### **6. Additional sources of information**

No information available at this time.

## **7. Situational Reference Materials**

No information available at this time.