

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



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region IX

**Subject:** POLREP #10  
American Samoa Earthquake and Tsunami  
American Samoa  
Pago Pago, American Samoa, AS  
Latitude: -14.2794000 Longitude: -170.7006000

**To:**  
**From:** Cameron McDonald, Situation Unit leader  
**Date:** 10/8/2009  
**Reporting Period:**

## 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

American Samoa is an unincorporated territory of the US, located in the South Pacific Ocean southeast of the sovereign state of Samoa (formerly known as Western Samoa). The main (largest and most populous) island is Tutuila, with the Manu'a Islands, Rose Atoll, and Swains Island also included in the territory. The 2000 census showed a total population of 57,291. The total land area is 200.22 km<sup>2</sup> (77 sq mi), slightly more than Washington, D.C.

Damage is widespread with **33** known fatalities on American Samoa, and 1 missing. Most damage occurred at Pago Pago Harbor and Village, and at the western end of the island, at Leone and surrounding villages.

##### 1.1.2.1 Location

American Samoa

##### 1.1.2.2 Description of Threat

On 29 Sep 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 five waves. All waves struck the island and Pago Pago, the main village. The Pacific Tsunami Warning Center reported the wave height at 15 feet for Pago Pago, American Samoa. Over 73 aftershocks have been reported, including nine aftershocks ranging from magnitudes 4.5 to 6.3.

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

EPA Chris Reiner (OSC) was deployed on 9/30 to make a rapid needs assessment. As of 10/7, he is overseeing the collection and staging of orphan containers and household hazardous waste.

#### Situation Summary

On 09/29 at 1048 hrs (PST) an 8.0 magnitude earthquake occurred southwest of American Samoa. The earthquake triggered tsunamis that struck American Samoa (population 65,000) with one wave reported at 15 feet striking Pago Pago, the main village. Damage is widespread with **33** known fatalities, hundreds injured and many pulled out to sea. 73 aftershocks have been reported.

- Power outages continue on the east side of the island. LBJ Hospital is operational.
- Airport is operational
- Communication is spotty; only cell phone service is local from Samoa Teleco or Bluesky

- Local Coast Guard personnel and EPA OSC Chris Reiner report no large oil or hazmat releases;
- Community water systems suffered some damage, but they have almost been fully restored
- The governor of AS requested a federal disaster declaration on 9/29.

Operational Status:

- EPA R9 has operated under a Pre Declaration Disaster Surge Account (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 post declaration MA (1859DR-AS-EPA-02) for the same activities. The projected end date for this MA is 10/10/200.
- FEMA has established a JFO on American Samoa. ERT's Duane Newell is staffing the ESF-10 desk at the JFO.
- EPA R9 continues to provide situational awareness from the Regional EOC. OSC Craig Benson is the duty officer this week.
- EPA Region 9 has received a third MA (1859SR-AS-EPA-03) for tsunami-caused hazardous materials removal. The projected end date for this MA is 10/30/09.

**2. Current Activities**

**2.1 Operations Section**

**2.1.1 Narrative**

See Situation Summary at Section 1.1.3, above.

**2.1.2 Response Actions to Date**

EPA OSC Chris Reiner was deployed on 9/30 to American Samoa, along with 1 START support staff, and 2 PST to perform a Rapid Needs Assessment. As of 10/6 Reiner and team is readying to transition from RNA activities to collection and staging of household hazardous waste (HHW) and orphan containers.:

Operational Status:

- OSC Chris Reiner arrived in AS as ESF-10 support at 2300 SST on 9/30, with one EPA START contractor and 2 PST.
- OSC Reiner, with support from START, PST, CST and Natl Guard, is collecting orphan containers when able. Pulled drums from the tide line and temporarily staged them along road with collection at the staging area at the Department of Public Works yard in Tafuna. Mitigated released oil along main road with sorbent material.
- Collected 35 drums, 1 250-gal marine fuel bladder, approximately 12 compressed gas tanks and cylinders, 20 car and marine batteries, and 30-40 smaller containers of various hazardous materials. Collected materials were taken to staging area in Tafuna. This included material strewn about Pago Pago streets, park, and shoreline, as well as some containers floating in the harbor. This work was carried out by EPA, USCG Pacific Strike Team, and Civil Support Team, Hawaii National Guard. The most surprising finds were a damaged 55-gallon drum of isocyanates, and 3, 1-gallon cans of isocyanates.
- OSC Reiner built 6 containment cells at the Department of Public Works yard in Tafuna, for storage of collected materials.
- Hazard categorization work has commenced on the containers collected to date and stored at the DPW Tafuna yard.
- AS govt plans to send all govt workers home Thursday thru Monday (minus Sunday) to work with their villages to haul out debris to the main road. ESF-3 is planning a massive collection effort. Chris and ASEPA have been mtg. with the village Chiefs with advise on separating HHW from other debris. They will be making another sweep across the island and staging it at the DPW yard in Tafuna and hope to get a Public Service Announcement out re HHW segregation.
- ASPA is concerned about the structural integrity of the reservoir dam that sits above Pago Pago, with a concern that water levels are approaching capacity and that the dam may have been compromised in the recent quake. ASPA is seeking to lower reservoir water levels by discharging to the stream that runs by Pago Plaza and out to the harbor - which if of course full of huge amounts of trash and smaller debris (cars, shipping containers, transformers, etc., have already been pulled out). Reiner and team have been tasked with conducting an assessment of the stream to see what this new flow might transport out to the harbor (USCG is maintaining a line of boom at the mouth of the creek). So far they have located an oil release coming out from a shipping container had been thrown about 1/4 mile from the harbor, and had ended up wedged against a tree and bridging the creek. Reiner and ASEPA built a couple of small rock dams and placed sorbent pads, and achieved decent containment of it for the moment, but can't easily access the oil source. (PST are returning to this site on 10/07)
- USCG had questions regarding jurisdiction. EPA will work with USCG to keep the cleanup and collection activity on going.
- USCG needs a Mission Assignment from FEMA directing USCG to remove the tsunami caused debris from Pago Pago Bay.
- About 800 to 1,000 gallons of oil have been pumped and hauled of island. R9 EOC has sent material and equipment (pallets, overpacks, drums, containers, tyveck, gloves, etc.) to American Samoa for OSC Reiner to use in securing the household hazardous waste (HHW). This material should arrive in AS by 10/10.
- R9 EOC has uploaded facility info into Response Manager.

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

Not Applicable

**2.1.4 Progress Metrics**

Not yet applicable

**2.2 Planning Section**

**2.2.1 Anticipated Activities**

For the operational period 1030 to 1700, the following resources on this response: At the EOC, EPA has a total of 9 staff. In the field, EPA has 1 OSC, 2 staff (ERT, START), and 5 PST assigned to EPA.

**2.2.1.1 Planned Response Activities**

EPA Chris Reiner and 1 START have conducted a Rapid Needs Assessment. Reiner and START are currently collecting and staging orphan containers and HHW.

**2.2.1.2 Next Steps**

Schedules have been prepared for to staff the EOC for the next week (thru 10/16).

**2.2.1.3 ISSUES**

- The main priorities of the disaster operations remain focused on restoration of commercial power in the eastern district, and repairs and restoration of the region's infrastructure.
- FEMA reports electricity restored to 1/3 to 1/2 of Tutuila Island. One of two island power plants continues to be offline.
- The only international airport in AS is operational; a limited supply of jet fuel may become a logistical problem. As of 1600 PST (2000 SST) 01Oct, 500,000 gallons of aviation fuel was verified on Tutuila Island.
- U.S. Army Corps of Engineers reports the water system on American Samoa is functioning to near normal capacity but pressure is limited in some areas.
- Both canneries remain closed.
- A damaged section of the Leone/Auma bridge has been temporarily repaired for emergency vehicles only.
- Roughly 65,000 cubic yards of debris has already been identified for removal.
- More than 20 generators have already been deployed to American Samoa, with several already supplying power to critical infrastructure.
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- Two cruise ships are expected to land in Pago Pago, AS this weekend. Each cruise ship will be carrying about 2,000 people. Currently ASG and the cruise ships are planning to run the regular tours.

**2.2.1.4 Weather**

AMERICAN SAMOA ZONE FORECAST PSZ150>152-131800-  
COASTAL WATER OF TUTUILA-AUNUU-MANUA-SWAINS ISLAND- 1000 PM SST MON MAY 12 2008

...A SMALL CRAFT ADVISORY REMAINS IN EFFECT DUE TO SOUTH SWELLS...

.REMAINDER OF TONIGHT..NORTHEAST WINDS 5 TO 15 KT AND GUSTY IN SHOWERS. SEAS 7 TO 9 FT. SCATTERED SHOWERS WITH ISOLATED THUNDERSTORMS.

.TUESDAY AND WEDNESDAY...NORTHEAST WINDS 5 TO 15 KT. SEAS 6 TO 8 FT. SCATTERED SHOWERS WITH ISOLATED THUNDERSTORMS.

.THURSDAY THROUGH SATURDAY...NORTHWEST WINDS 10 TO 20 KT. SEAS 6 TO 8 FT. SCATTERED SHOWERS.

**2.3 Logistics Section**

No information available at this time.

**2.4 Finance Section**

**2.4.1 Narrative**

EPA R9 is operating under a Pre Declaration Disaster Surge Account (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 received additional post declaration MAs (1859DR-AS-EPA-02) for the same activities. The projected end date for this MA is 10/10/2009. EPA Region 9 has received a third MA (1859DR-AS-EPA-03) for tsunami-caused hazardous materials removal. The projected end date for this MA is 10/30/09. With the addition of a third MA, the current total moneys allocated to EPA R9 is \$616,000.

JFO is working with FEMA to extend MA project end dates for MA#1859DR-AS-EPA-02 to 10/30/09 and MA#1859DR-AS-EPA-03 to 03/31/10

**NOTE: Travel to American Samoa should be charged to MA#2 and working time on American Samoa should be charged to MA#3.**

The following is a list of Mission Assignments currently being coordinated by EPA:

Mission Assignments	Funded	Obligations	Amount Available	Daily Burn Rate
<b>7220SU-MP-EPA-01:</b> Activate EPA to FEMA R9 RRCC or other locations as directed by FEMA to perform duties of ESF #10, in support of Pre-Declaration disaster operations. In response to Typhoon Melor (FEMA_R9_CNMI-TS-Melor-20W_09-30-2009.)	\$ 25,000	\$ 10,800	\$ 14,200	\$ 1,350.00
<b>7220SU-AS-EPA-02:</b> Activate the Environmental Protection Agency (EPA) to the FEMA Region 9 Regional Response				

Coordination Center (RRCC) to perform duties of Emergency Support Function (ESF) #10 in support of Pre-Declaration disaster operations in response to 2009092901-AS-Tsunami-09-29-2009.	\$ 75,000			
<b>1858DR-AS-EPA-01:</b> Activate EPA to the FEMA NRCC to perform duties of ESF #10 in support of Post-Declaration disaster operations in response to Earthquake Tsunami 1859-DR AS.	\$ 10,000	\$ 7,000	\$ 3,000	\$1,750.00
<b>1859DR-AS-EPA-02:</b> Activate EPA to the FEMA R9 RRCC to perform duties of ESF #10 in support of Post-Declaration disaster operations in response to Incident: 2009092901 - Earthquake, Tsunami and Flooding.	\$ 10,000			
<b>1859DR-AS-EPA-02: Amendment #1:</b> Increase Funding for MA 1859DR-AS-EPA-02 from \$10,000 to \$100,000	\$ 90,000			
<b>1859DR-AS-EPA-02-01: Amendment #2:</b> Increase Funding for MA 1859DR*AS-EPA-02-01 from \$100,000 to \$281,000. Increase by \$181,000.	\$ 181,000	\$ 132,000	\$ 49,000	\$16,500.00
1859DR-AS-EPA-03: Activate EPA to identify and dispose of hazardous materials in areas affected by 1859-DR-AS, Earthquake, Tsunami	\$ 300,000			
<b>Total</b>	<b>\$ 691,000</b>	<b>\$ 149,800</b>	<b>\$ 66,200</b>	<b>\$ 19,600.00</b>

Costs incurred R9 EOC: R9 EPA Salary & Contractor Costs incurred  
Costs Incurred R9 Field : Includes obligations for EPA personnel and contractor resources.

## 2.5 Other Command Staff

No information available at this time.

## 3. Participating Entities

### 3.1 Unified Command

EPA is coordinating its efforts under FEMA. No formal ICS structure has been established to date for the ESF-10 function.

### 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. Seth Heller is START in support of Reiner. USCG PST has 5 personnel assisting Reiner. Duane Newell of ERT is staffing the ESF-10 desk at the JFO.

The R9 EOC was staffed on 10/7 by:  
John Kennedy - Regional Incident Coordinatoor  
Jeremy Johnstone - Situation  
Sheila Nematollahi-Rad & Morena Villanueva - Resources  
Judith Winchell - Documentation  
Kathy Meltzter - Finance

## 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.

POLREP #10 Last Updated 10/9/2009