

NOAA Geospatial Bootcamp: American Samoa 2013

August 27-30, 2013
ASDOC

Summary

A four-day interactive meeting of presentations, discussions, demonstrations, and hands-on instruction to leverage NOAA's geospatial products and services and address American Samoa's priority coastal management needs.

Bootcamp Objectives

1. Increase partner awareness of, and access to, NOAA's regional resources
2. Increase NOAA regional staff awareness of partner needs, interests, and priorities
3. Provide forum to build mutually beneficial partnerships and follow up opportunities
4. Address specific, pre-identified geospatial needs

Detailed Agenda

Tuesday, August 27

11:00 **NOAA's Sea-Level Rise and Coastal Flooding Impacts Viewer**

Presentation on NOAA's SLR Viewer and the partnership with the University of Hawaii, American Samoa Department of Commerce, and U.S. Fish and Wildlife.

12:00 **Lunch**

1:00 **Bootcamp Overview**

A discussion of the objectives and planned activities for the week
Jamie Carter, NOAA and Kalisi Mausio, NOAA

1:30 **Data Discovery**

An overview/demo of the latest and greatest data from NOAA, USGS, and NRCS

- Digital Coast
- Satellite Imagery
- Land Cover
- Aerial Imagery
- Airborne Lidar
- Mobile Lidar
- Sea Level Rise Viewer

2:30 **2012 American Samoa Airborne Lidar Interrogation**

A thorough examination of the 2012 lidar to reveal the subtle and unique characteristics of the data set that will affect all subsequent applications and derived products.

4:00 **Adjourn**

Wednesday, August 28

8:30 **Arrive, Prepare Workspace**

9:00 **2012 American Samoa Airborne Lidar Recap & Processing Briefing**

Lidar data and derived products are valuable for multiple agencies in American Samoa. Developing these products can be challenging without the proper software and training. The activities planned for the next three days will address these challenges. Available tools and workflows for managing, visualizing, and processing lidar data will be explored and demonstrated. Hands-on exercises will be used to teach methods for analysis of lidar data and lidar-derived products.

9:30 **American Samoa Lidar Applications**

Discussion of the needs expressed by local government agencies, and strategies to address them using existing and future resources.

Leader: Bob Koch, ASDOC

10:00 **Working with Lidar: Data types and access**

An overview of the types of available lidar data and associated deliverables and how to access them locally and from NOAA's Digital Coast website.

Leader: Kalisi Mausio, NOAA

11:00 **Working with Lidar: Getting started with lidar in ArcGIS 10.1**

Introduction to loading LAS data in ArcGIS and exploring their properties and derived elevation and terrain models. How to overlay with land use and imagery data for visualization purposes.

Leader: Jamie Carter, NOAA

12:00 **Lunch**

1:00 **Working with Lidar: Generating hydrographic data**

Introduction to ArcGIS processes for deriving streams from elevation models and imagery. This workflow demonstrates the first step in updating American Samoa hydrographic lines to be incorporated to the U.S. National Hydrographic Dataset (NHD) and topographic maps.

Leader: Kalisi Mausio, NOAA

4.30 **Adjourn**

Thursday, August 29

8:30 **Arrive, Prepare Workspace**

9:00 **Inundation Mapping Workflow Revealed**

The process that NOAA uses to map sea-level rise and coastal flooding impacts will be explored through document reviews and hands-on demonstrations. Special attention will be paid to modeling water features (e.g. shorelines, streams, ponds) and wetlands.

Leader: Jamie Carter, NOAA

11:00 **SLR DEM Action Planning**

The American Samoa SLR team will review the draft DEMs and then discuss the QA/QC process required to produce the final SLR DEMs for each island. The group will plan the field collection and data editing tasks for Thursday and Friday.

12:00 **Lunch**

1:00 **Field Data Collection**

Site visits for feature validation and surface calibration will be conducted and photographs will be taken at specific landmarks for visualization development.

4:30 **Adjourn**

Friday, August 30

8:30 **Meet, Prepare**

9:00 **SLR DEM Development**

Field data will be downloaded and organized. The Tutuila SLR terrain will be edited using the field data and local expertise. The focus of these activities will be on breakline refinements and wetland characterizations.

12:00 **Lunch**

1:00 **SLR DEM Finalization**

Steps will be identified and taken to generate the final American Samoa SLR DEMs.

4:00 **Adjourn**