

# OVERVIEW OF EVAN TROPICAL CYCLONE DAMAGES, TUAMASAGA DISTRICT, UPOLU ISLAND, SAMOA

Analysis with Post-Crisis Pléiades Image Data Acquired 19 Dec 2012 & Pre-Crisis GEOEYE-1 Image Data Acquired 08 Oct 2012

This map illustrates satellite-detected areas of building damage, road obstacle, damage to other infrastructure, tree fall areas due to tropical cyclone Evan in southern part of Upolu Island in Samoa as of 19 Dec 2012. Damages were detected using high resolution satellite image Pléiades taken on 19 Dec 2012. The damages visible from the satellite are roof damage and complete destruction of the buildings which was detected comparing to pre disaster GEO-

EYE image taken on 8 Oct 2012. It is likely that damages have been underestimated in places where damages did not occur in the roof but other parts of the structure. Road obstacles, tree fall and other infrastructure damages were detected in a similar manner comparing pre and post disaster images. This analysis has not yet been validated in the field. Please send ground feedback to UNITAR /UNOSAT.

Disaster coverage by the International Charter 'Space and Major Disasters'. For more information on the Charter, which is about assisting the disaster relief organizations with multi-satellite data and information, visit [www.disasterscharter.org](http://www.disasterscharter.org)



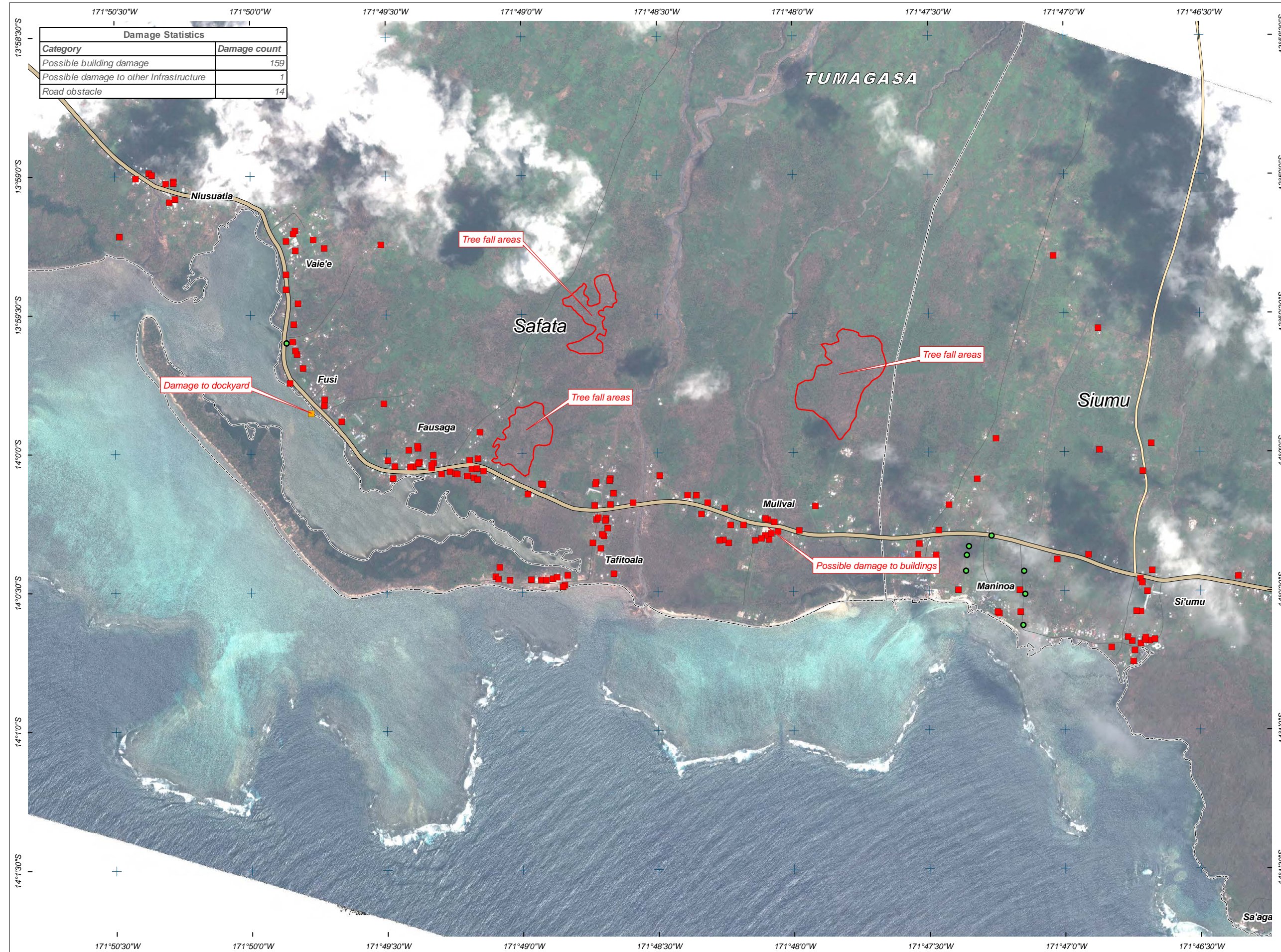
Tropical Cyclone



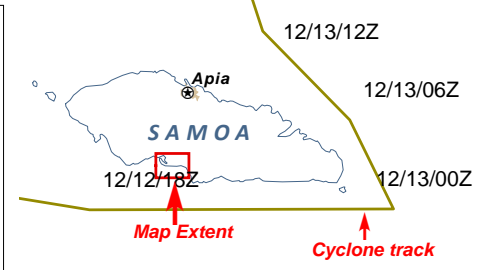
Production Date: 24/12/2012

Version 1.0

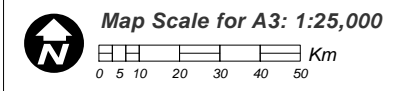
Activation Number: GLIDE - TC-2012-000201-WSM



Damage Statistics	
Category	Damage count
Possible building damage	159
Possible damage to other Infrastructure	1
Road obstacle	14



- LEGEND**
- CYCLONE DAMAGE ANALYSIS**  
(Satellite-Based Damage Identification)
- Possible Building Damage
  - Possible Damage to other Infrastructure
  - Road Obstacle
  - Tree Fall Area
  - Primary Road



Satellite Data (1): Pléiades  
Imagery Dates: 19 Dec 2012  
Resolution: 0.5 m  
Copyright: 2012 Astrium GEO-Information Services  
Source: CNES

Satellite Data (2): GEOEYE-1  
Imagery Date: 08 Oct 2012  
Resolution: 2.0 m  
Copyright: GEOEYE  
Source: HDDS, USGS

Road Data : Google Map Maker / OSM / ESRI  
Other Data: USGS, UNCS, NASA, NGA, PaRIS, UNISYS

Analysis : UNITAR / UNOSAT  
Production : UNITAR / UNOSAT  
Analysis conducted with ArcGIS v10.1

Coordinate System: WGS 1984 UTM Zone 2S  
Projection: Transverse Mercator  
Datum: WGS 1984  
Units: Meter

The depiction and use of boundaries, geographic names and related data shown here are not warranted to be error-free nor do they imply official endorsement or acceptance by the United Nations. UNOSAT is a program of the United Nations Institute for Training and Research (UNITAR), providing satellite imagery and related geographic information, research and analysis to UN humanitarian and development agencies and their implementing partners.

This work by UNITAR/UNOSAT is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License.

UNITAR  
United Nations Institute for Training and Research

**UNOSAT**

Contact Information: [unosat@unitar.org](mailto:unosat@unitar.org)  
24/7 Hotline: +41 76 487 4998  
[www.unitar.org/unosat](http://www.unitar.org/unosat)