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United Nations Institute for Training and Research

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*Tropical Cyclone*



Production Date: 02/01/2013

Version 1.0

Activation Number:

TC-2012-000201-WSM



# REPORT: CYCLONE EVAN DAMAGE ASSESSMENT OF APIA, TUAMASAGA DISTRICT, UPOLU ISLAND, SAMOA



Center Coordinates: 171°44'51.89"W 13°50'26.04"S

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Satellite Data (Post-Crisis): Pleiades  
Imagery Dates: 19 December 2012  
Resolution: 0.5m  
Copyright: 2012 Astrium GEO-Information Services  
Source: CNES  
Satellite Data (Pre-Crisis): GeoEye  
01  
Imagery Date: 24 September April 2012

Resolution: 2m  
Copyright: GeoEye  
Source: USGS  
Other Data: USGS, UNCS, NASA, NGA  
Analysis : UNITAR / UNOSAT  
Production: UNITAR / UNOSAT  
Analysis conducted with ArcGIS v10.1

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)



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02 January 2012 – Version 1

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## Report: Cyclone Evan Damage Assessment of Apia City, Samoa

**PREFACE:** This report provides a detailed analysis of damages observed in the city of Apia, Tuamasaga District, Upolu, Samoa. Pleiades Satellite imagery acquired on 19 December 2012 and GeoEye 01 acquired on 24 September April 2012 was used for this report. Building damages in Apia appear to be limited to roof damages and debris with occasional collapsed structures. The most severe building damages observed in the imagery appear to be within the flood plains of rivers and along the coast. In addition to building damages, sections of forests are observed to have collapsed from the cyclone winds with timber debris collected along the river bank and the coast. This report is in support of international humanitarian assistance and created to respond to the needs of the International Charter on Space and Major Disasters, UN agencies and their partners. This assessment has not yet been validated in the field. Please send feedback to UNITAR/UNOSAT at the contact information below.

### 1. (Site 1) Fallen timber and other debris have collected along the coast.



2. (Site 2 & 3) In site 2 there are structures with visible damages, sections of roof missing and two buildings apparently destroyed (evident from the debris concentrations). In site 3, a building with severe damages appears to have partially collapsed.



Site 2



Site 3

3. (Site 4) Structures severely damaged with sections of roof missing. Potentially partially collapsed buildings.





4. (Site 5) Mud and debris mark the overflow of the river and potential flash flood in the area. Debris appears to be mainly fallen timber in this area, likely from windblown forests up the river. Buildings in this area are likely damaged.



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