UNOSAT and collaborations with Swiss geo-spatial actors
UNOSAT today

UNOSAT is the Operational Satellite Applications Programme of the UN Institute for Training and Research (UNITAR) – entirely dedicated to researching and applying solutions in geo-spatial imagery analysis, mapping and capacity development

A mature UN centre of excellence with global outreach supported by a network of partners worldwide

Since 2003, operational in over 290 emergencies & conflicts

27 people: Geneva, N’Djamena (Chad), Nairobi (Kenya) and soon Bangkok (Thailand)
MAPPING
Research, Analysis & Applications

IN-FIELD
Technical Support and Capacity Development

PROJECTS & METHODOLOGY
Training, Design, Knowledge
LANDSLIDE IN AB BAREK, BADAKSHAN PROVINCE, AFGHANISTAN

Analysis with WorldView-1 Data Acquired 3 May 2014 & Landsat 8 Data Acquired 30 March 2014

This map illustrates satellite-detected areas of landslide damage in the village of Ab Barek, Badakshan, Afghanistan. Following heavy rains in the region, a landslide partly buried Ab Barek on 2 May 2014. Using a satellite image acquired 3 May 2014 by the WorldView-1 satellite, UNOSAT delineated the primary landslide area as well as a probable secondary area directly affected by the slide. Using a lower resolution Landsat-8 image collected 30 March 2014, a partially visible secondary area of buried housing is also indicated though this should be treated as preliminary and speculative. This is a preliminary analysis and has not yet been validated in the field. Please send ground feedback to UNITAR/UNOSAT.
UNOSAT 2013 FACTS

NORTHERN AFRICA
- Sudan

WESTERN AFRICA
- Côte d'Ivoire
- Mali
- Niger
- Nigeria

EASTERN AFRICA
- Kenya
- Mozambique
- Somalia
- South Sudan
- Seychelles
- Uganda
- Zimbabwe

MIDDLE AFRICA
- Chad

CENTRAL AFRICA
- Central African Republic
- Democratic Republic of the Congo

SOUTHERN ASIA
- Bangladesh
- Pakistan

SOUTHERN ASIA
- Chad
- Bangladesh
- Kenya
- Denmark
- Thailand
- Switzerland

164 Training Participants in 11 Trainings Worldwide

221 Maps Atlases Reports

TOPICS
- Complex Emergency
- Flood
- Tropical Cyclone
- Refugee Camp
- Earthquake
- Other
- Drought
- Fire
- Storm
UNOSAT’s current and past Swiss partners

ResEAU Chad:
- Swisstopo
- University of Neuchatel
- CreAlp

Satellite image analysis:
- National Point of Contact(NPOC) for Satellite Images
- Esri Switzerland
- Gamma Remote Sensing
- Swisstopo
- sarmap
UNOSAT’s current and past Swiss partners (cont’d)

Research in new applications:
- SenseFly
- Pix4D

Training:
- University of Geneva
- EPFL
- University of Neuchatel

Hosted at CERN!
16 terabytes of data stored at CERN Computer Centre – benefiting from economies of scale (100 petabytes at CERN), i.e. UNOSAT share: 1/6000

- 10 gigabit/second bandwidth
- IT-support and server hosting
- Virtual machines in CERN-cloud
- Computer security
- Research environment, collaboration
GDACS LIVE map – Philippines Typhoon Haiyan

https://unosatgis.cern.ch/webmap/UNOSAT_LIVE/Operative/index.html?config=config_TC_20131108_PHL.xml
Example: “Satellite imagery for all”

How UNOSAT satellite image analysis and mapping shared with humanitarian actors benefit wide range of applications:
Al Zaatari refugee camp, Jordan
SYRIA
Home

This geoportal provides access to satellite-derived geospatial vector data on selected flood events occurring between 2007 and 2013. Additional data will be added as possible until the complete UNOSAT flood vector library is available. Users can find and load the flood data into online maps, ArcMap, Google Earth, and other software with the Dynamic Viewer and Search page, or download full geodatabases.

Please send us questions, comments, and suggestions via the Feedback form.
UNOSAT UAV capacity: Successful deployment to Haiti
UAV SURVEY OF GRANDE RAVINE, PORT AU PRINCE, HAITI

This aerial survey of the Grande Ravine section of Port au Prince was conducted with UAVs in direct support to projects of the UN. The survey was provided by the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) and conducted in the CTHURES project. The data have been validated and are available for further use.

For more information, please contact OCHA Haiti at info@un.org.
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