

UNOSAT's role in disaster preparedness and drills



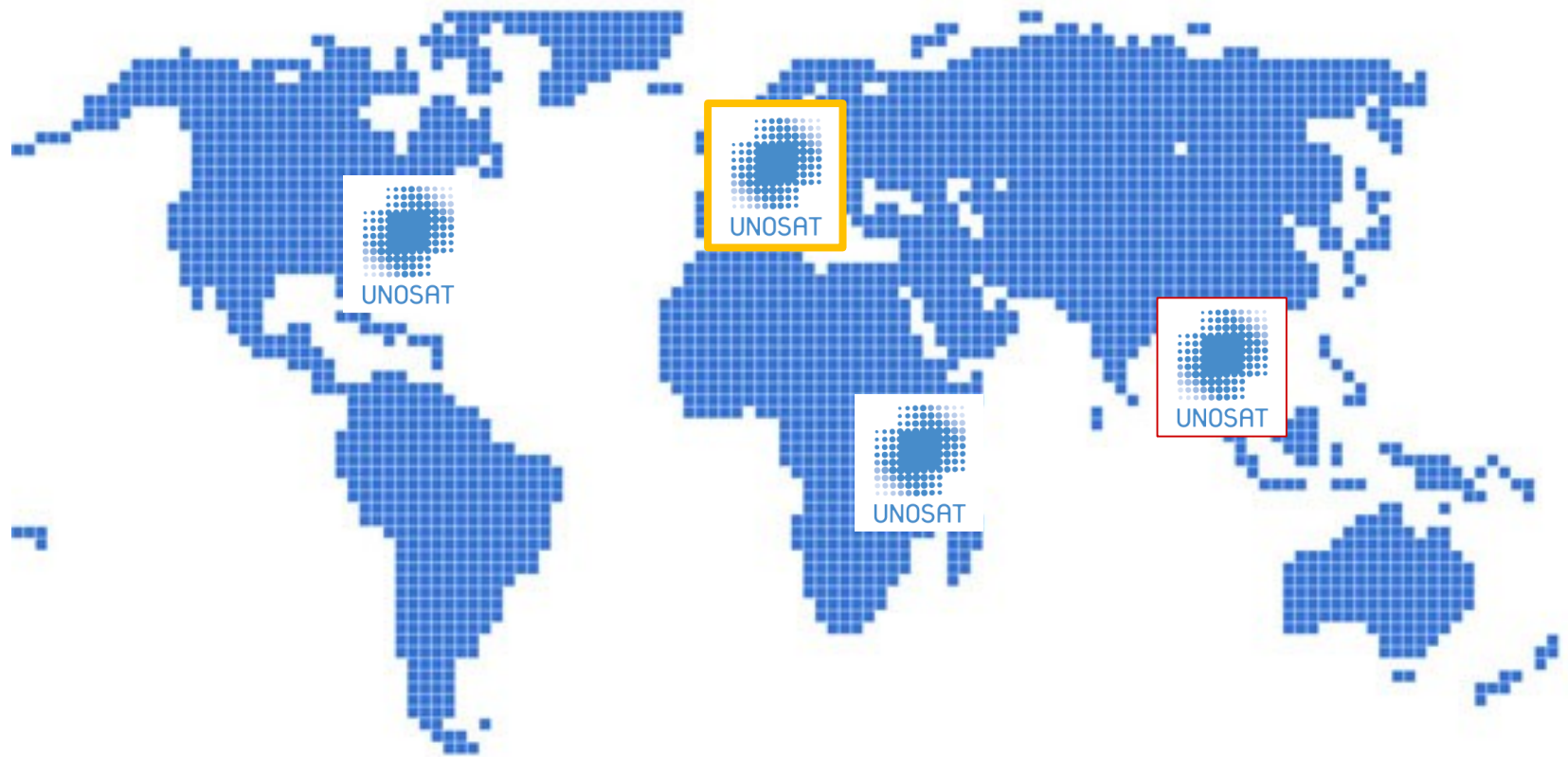
Copyright: Airbus Defense and Space

10 April 2018

Introducti

- United Nations Operational Satellite Applications Programme
- A programme in the Research Department of United Nations Institute for Training and Research (**UNITAR**)
- UNOSAT operational since **2001**
- Fully dedicated to **satellite imagery analysis and capacity development**

UNOSAT's offices



Welcome

1. Satellite imagery analysis

- Natural disasters
- Human security
- Human rights
- Development

2. Training and capacity development

3. Research and innovation

Introduction to UNOSAT



50%

MAPPING

Research, Analysis &
Applications



50%

Training & Capacity Development

Hands-on, Data and
Knowledge Transfer

Knowledge transfer



Damage assessment of Taipa area in Central Sulawesi

This map illustrates satellite-detected building damage assessment as of 02 October 2018, over Taipa area northeastern Palu city in Central Sulawesi following the 7.5 magnitude earthquake and subsequent tsunamis of the 28th of September 2018. The analysis was conducted using a post-event Worldview-2 satellite image acquired 2 October 2018. UNITAR-UNOSAT identified in the analysed area 399 potentially damaged structures. Taking into account the pre-building footprints provided by Humanitarian OpenStreetMap, this represents 10 % of the total number of structures within this analysed zone of Taipa. This is a preliminary analysis and has not yet been validated in the field. Please send ground feedback to UNITAR – UNOSAT.

Legend

- Damaged building
- Populated place
- UNOSAT analysis extent
- Highway/primary road
- Local road



Map Scale for A3: 1:15,000



Disaster an



- 1. Triplex Exercises**
- 2. Virtual / Online Exercises and Simulations**

- Regular field exercises organized by the International Humanitarian Partnership
- Most recent in 2016, hosted in Norway
- Mock country of 'Sorland' created, mock hurricane and flooding simulated
- Over 100 staff from many organizations participated





UNITED NATIONS
OSOCC
ON-SITE OPERATIONS
COORDINATION CENTRE

IHP
INTERNATIONAL
HUMANITARIAN
PARTNERSHIP

EUROPEAN
CIVIL PROTECTION

WFP

UNITED NATIONS

- UNOSAT sent one person as a field liaison
- Liaison largely remained in On-site Operations Coordination Center (OSOCC)
- Dialogued continuously with **cluster representatives** (water, health, logistics, etc)
- Determined satellite imagery needs and communicated those to UNOSAT Geneva
 - Ericsson set up towers for comms



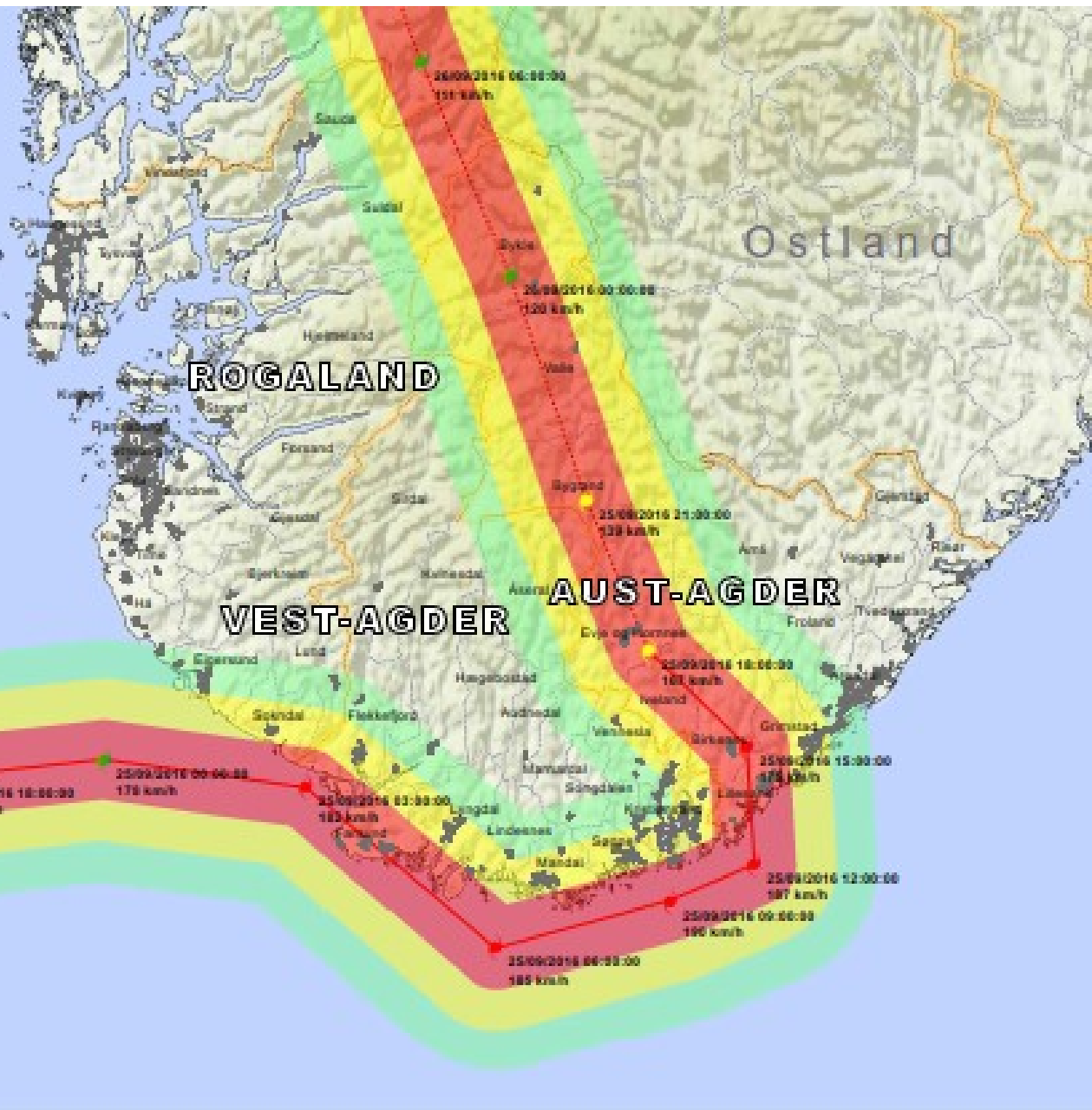
UNITED
NATIONS

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- UNOSAT Geneva performed rapid analysis, PDF map production, online webmap production
- PDF shared with OSOCC via liaison, **printed**; online map displayed on screen
- Real world 'surprises' as analysis areas were shifted at last moment due to road blockage, requiring new map production

Hurricane Windblown formed north-east of the Atlantic Ocean on the 20th of September 2016. The hurricane intensified as it continued east. It struck the south-western region of Sorland on the 25th of September at 3.00 UTC with a wind speed of 182 km/h. The maximum wind speed of the hurricane, of 190 km/h, was reached at 9.00 UTC. At midday, the hurricane moved from the southern part of Sorland to the north decreasing in intensity.



On

- Virtual On-Site Operations Coordination Center (VOSOCC)

← → ↻ https://vosocc.unocha.org/VOOOverview.aspx 🔍 ☆ 🔄 📄 📄 Error

GDACS
Global Disaster Alert and Coordination System

GDACS is a cooperation framework between the United Nations, the European Commission and disaster managers worldwide to improve alerts, information exchange and coordination in the first phase after major sudden-onset disasters.

United Nations and the European Commission

GDACS ALERTS **VIRTUAL OSOCC** MAPS & SATELLITE IMAGERY SCIENCE PORTAL ABOUT GDACS

Lars Bromley, UNOSAT **YOUR PROFILE** **LOGOUT** English Session expires in 20 minutes

Update colour scheme: 1 hr, 1-3 hrs, 3-6 hrs, 6-12 hrs, 12+ hrs, None

Disasters	Simulator	Training	Meetings	Discussions	Users	Lists	Statistics
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Archived discussions RELIEF TEAM DIRECTORY

Find discussion: GO New breaking emergency

Notify when new discussions added

Emergencies	
19-Sep-2018	Nigeria Floods
23-Jul-2018	Forest fires in Europe
14-Sep-2018	Super Typhoon Mangkhut (Ompong) - Philippines
28-Sep-2018	M 7.7 Earthquake in Indonesia

Register for event

Simulation Exercises
RIMPAC-18 "Operation Restore Griffon"
(4-Jul-2018 - 19-Jul-2018) REGISTER

Training
Typhoon Elena, Oranu REGISTER

CMCoord

Simulation Exercises
EU Nordic Modules, Table Top Exercise (EU-NOM TTX), Kuopio, Finland
(12-Sep-2018 - 14-Sep-2018) REGISTER

OSOCC

EU Training
Canada Wildfire Team BRAVO
(28-Sep-2018 - 6-Oct-2018) REGISTER

UNDAC

Simulation Exercises
HAWA Oct 2018 Accra
(30-Oct-2018 - 20-Oct-2018) REGISTER

UNOSAT provides resources for Training and Research

Or

- Low bandwidth, password protected
- Designed to connect organizations before they reach an OSOCC
- Link on-site OSOCC with rest of world
- European Commission, UN (OCHA, UNOSAT)

Or

- Training frequently, so users can use the system
- Simulations to maintain training
- UNOSAT fully integrated:

From: virtual-osocc@un.org <virtual-osocc@un.org>

Sent: Tuesday, 2 October 2018 02:52

To: Einar BJORGO <Einar.BJORGO@unitar.org>

Subject: EXERCISE: EXERCISE ONLY: Virtual OSOCC request for new disaster map

EXERCISE ONLY:

Virtual OSOCC disaster: Klanndestan Floods - Team B

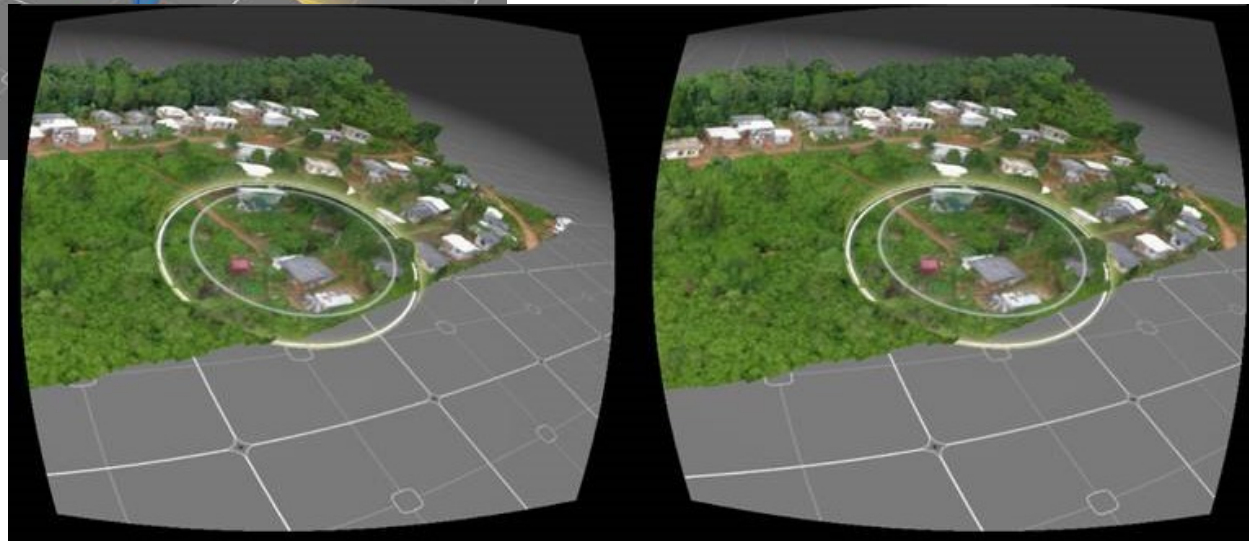
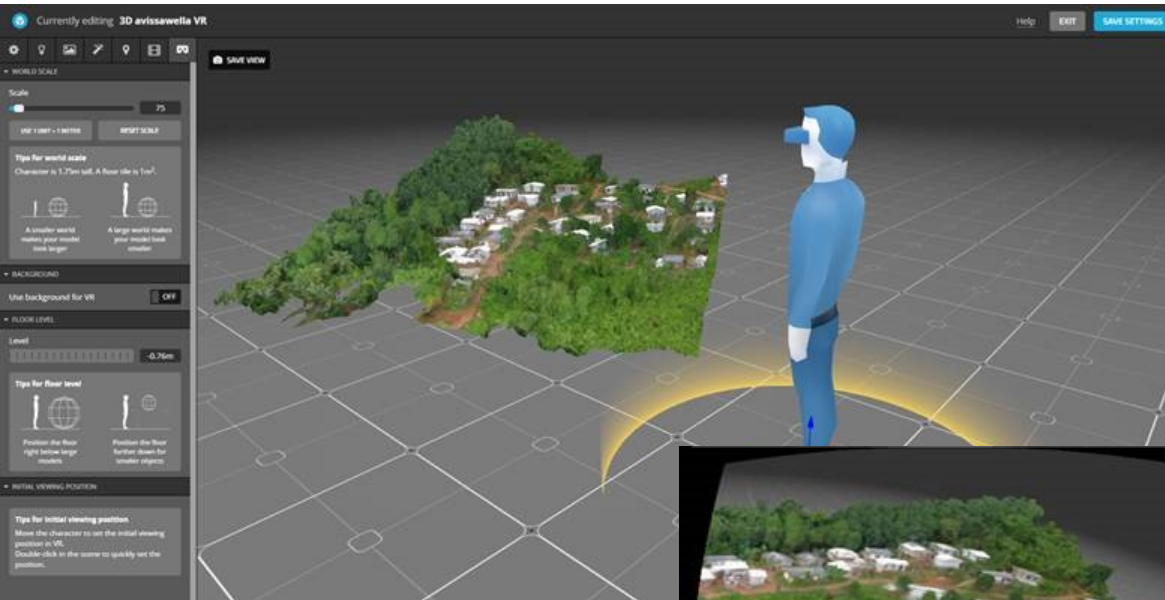
GLIDE: Not available

Map title: road distance city to city

Description: Not available

Date of request: 2-Oct-2018 02:51

Virtual Reality



<https://skfb.ly/6qJSM>

UNITAR Operational Satellite Application Programme (UNOSAT)

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unitar

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