

Crisis Management

Satellites - Links for Life



Crisis Management: Satellites - Links for Life

Recent decades have seen a steady increase in natural catastrophes resulting in loss of life and economic loss.

Weather related events are expected to increase in number and severity in the future, due to the impacts of climate change¹.

Whether in terms of earth observation, monitoring or emergency communications, satellites dramatically impact the ability to effectively plan, coordinate and respond to such disasters.

Footnote: 1. Source Munich Re's 'GEO Data Service'

Delivering People-Centred Solutions

ESOA and UNOSAT (the Operational Satellite Programme of UNITAR) launched a new partnership in 2007 aimed at facilitating the integration of satellite applications based on EO and satellite telecommunication solutions. This is an effort to accelerate the translation of technologies now largely available into useable solutions with a focus on beneficiaries and affected people in disaster prone and crisis-stricken developing countries.

A memorandum of understanding signed in November 2007 sets a framework within which the two organisations plan to work together to identify the appropriate satellite resources to optimise the deployment and use of satellite solutions for international development and emergency response. In addition, UNOSAT will provide ESOA with an interface for the analysis of user requirements and needs in the domains of prevention, preparedness, response and recovery phases of the crisis management cycle.

ESOA members and UNOSAT share a common vision focused on the provision of actual services and products intended to enable international and national organisations to perform better in crisis situations but also to approach risk prevention and local capacity development in a more efficient way, enjoying the support of satellite technologies.

Tsunami



Tsunami

Sri Lanka

December 2006

The earthquake and resulting tsunami in South-East Asia had a magnitude of 9 on the Richter scale and was classed as a "megathrust". It killed around 226,000 people, 38,000 of whom were in Sri Lanka. It destroyed everything in its path, completely immobilizing the terrestrial communications infrastructure.

The Italian Civil Protection Services, European Coordinator for Community Aid deployed small-sized satellite terminals to enable emergency communications for aid workers and those affected, and provide a full broadband infrastructure to enable detailed exchanges between 3 bases in Sri Lanka (Colombo, Trincomalee and Galle) and the crisis cell in Rome.



Climate Change: Melting Glaciers

Satellite
Terminal

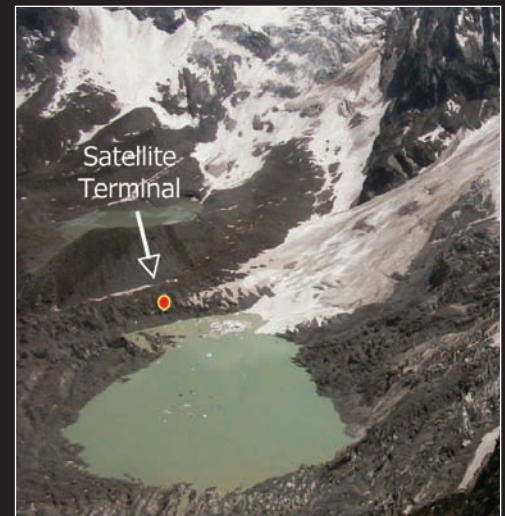


Climate Change: Melting Glaciers

Mount Rosa Glacier

June 2002

With changing climates, ever-present glaciers are now melting. In Macugnaga, Italy, one glacier created an 'Ephemeral' Lake which threatened to overflow and affect residents of a neighbouring town. Video-surveillance and communication was enabled by installing a satellite link on nearby Mount Rosa.



Floods and Mudslides in Mexico

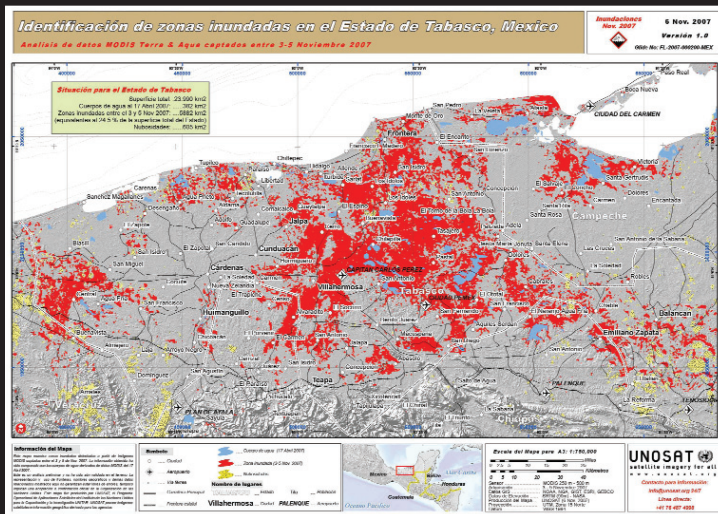


Floods and Mudslides in Mexico

Mexico

October 2007

Telecoms Sans Frontières (TSF) supported the United Nations Disaster Assessment and Coordination (UNDAC) teams in the aftermath of the heavy floods that struck Mexico. Over one million inhabitants of the south-eastern states of Mexico were affected by serious floods and 80% of the State of Tabasco was under water. The TSF team used satellite communications to provide essential networks and deploy a communication centre in Villahermosa, Tabasco. TSF was also instrumental in disseminating UNOSAT maps to international rescue teams and local authorities during the emergency relief operation.



Volcanic Activity



Volcanic Activity

Stromboli, Italy

January 2003

Satellite terminals flown in by helicopter were deployed within a few hours to restore telephone connections when volcanic activity on the island of Stromboli, Italy disrupted land-based communications.

Civil protection workers had immediate and complete access to communications and received information on Stromboli's volcanic activity and changes in sea levels as part of an early warning system for landslides and tidal waves. A buoy equipped with sensors, launched in the waters 100 metres off the coast of the island, sent signals to a satellite terminal on Stromboli, which relayed data to the headquarters of Italy's Civil Protection Agency in Rome and its offices elsewhere in Italy.

Guido Bertolaso, Director of the Italian National Civil Protection Agency said, "In these difficult times, satellites have solved many problems, demonstrating their versatile nature and their ability to provide broadband connectivity in any situation."



Landslide



Landslide

Valtellina 2007

July 2007

In 1987, the 'landslide of Ruinon' buried the entire village of Sant'Antonio Morignone in Valtellina, Italy. The effects of this landslide are still visible today. In July 2007, 3 days were devoted to national exercises involving civil protection, firemen, regional and local administrations to remember Valtellina and to be prepared for the ongoing serious risk of landslides that still prevails at times of heavy rainfall. The activities used satellite surveillance and communications technology and ranged from early [meteorological] warning to intervention coordination.



Earthquake



Earthquake

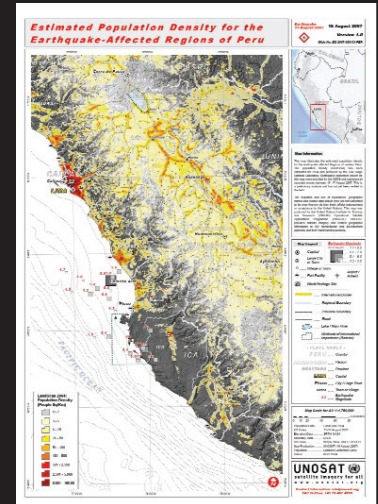
Peru

August 2007

In August 2007, an earthquake measuring 7.9 on the Richter scale struck Peru, killing hundreds, injuring many more and destroying around 60,000 houses. Telecommunications were also seriously disrupted, but in less than 24 hours after the disaster, TSF had deployed a crew of emergency telecom specialists from its Americas base in Nicaragua to support rescue teams and affected civilians in the town of Pisco.

TSF installed two satellite-based Emergency Communication Centres (ECCs) in Pisco offering Internet access, voice and fax lines and IT assistance to the whole humanitarian community during the emergency phase of the disaster response. The set up also served to facilitate the dissemination of UNOSAT maps in the field.

At least 17 relief organizations involved - such as the United Nations Disaster and Assessment Coordination (UNDAC) teams, the World Food Program (WFP), the International Federation of the Red Cross, Oxfam, and Médecins du Monde Spain - were able to better coordinate their operations on the ground and send assessments and reports on the situation to better respond to the needs of the affected populations.



About ESOA

The European Satellite Operators' Association was formed in March 2002 to represent the interests of the industry with the European Commission, Parliament, Council and the European Space Agency as well as other international organisations, national governments and regulators. ESOA's goals include ensuring that satellites benefit from the appropriate political, industrial and regulatory environment to fulfil their vital role in the delivery of communications. ESOA is governed by a Board of Directors made up of the CEOs of its Member Companies.

The activities and other details about ESOA can be found at www.esoa.net. Members of ESOA are: Astrium Services, Eurasiasat, Eutelsat, HellasSat, Hispasat, Inmarsat, SES, SES Sirius, Telenor and Telespazio. Arianespace, Astrium Satellites, Avanti, International Space Brokers, Mansat, Marsh, Thales Alenia Space and Willis are Supporting Members of ESOA.

For more information please contact:

Mrs. Aarti Holla-Maini
Secretary General

European Satellite Operators' Association,
Bastion Tower, 20th Floor,
5, Place du Champ de Mars,
1050 Brussels, Belgium
t: +32.2.550.35.75
f: +32.2.550.35.35
e: sg@eso.net
w: www.esoa.net



About UNOSAT

UNOSAT is a United Nations initiative launched in 2001 by the United Nations Institute for Training and Research (UNITAR). UNOSAT mission is to provide the UN family and the international community with people-centred satellite-based solutions through the development and provision of satellite applications, GIS and training for humanitarian relief, disaster management and prevention, and early recovery (www.unosat.org). UNITAR was established in 1963 by the United Nations General Assembly (resolution 42/197) with the purpose of enhancing the effectiveness of the United Nations in achieving the major objectives of the Organization, in particular maintaining peace and promote economic and social development (www.unitar.org).

For more information please contact:

Francesco Pisano
Head, Institutional Affairs UNOSAT
United Nations Institute for Training and
Research - UNITAR
Palais des Nations
CH - 1210 Geneva
t: +41-22-9178720
e: francesco.pisano@unitar.org
w: www.unosat.org

