United Nations Institute for Training and Research

Unitar Online Catalogue

Rapid Response Mapping in Disaster Situations

Type:	Course
Location:	San Jose, Costa Rica
Date:	29 Oct 2012 to 2 Nov 2012
Duration:	5 Days
Programme Area:	Satellite Imagery and Analysis
Website:	http://www.unitar.org/unosat
Price:	$0.00
Event Focal Point Email:	unosat@unitar.org
Partnership:	Government of the Republic of Costa Rica

BACKGROUND

In April 2011, UNITAR/UNOSAT and the Government of the Republic of Costa Rica have established a collaboration to develop a capacity building programme on the use of geo information technologies applied to territorial planning and monitoring. A technical agreement was established between UNOSAT, the “Ministerio de Relaciones Exteriores y culto (Cancillería)” which was later extended to the “Comisión Nacional de Prevención de Riesgos y Atención de Emergencias –CNE”. The technical agreement included a number of capacity development activities which have started to be implemented in September 2011 with the overall goal of strengthening technical capacity in the use of geospatial

information technology. In this framework, UNOSAT, the “Ministerio de Relaciones Exteriores y culto (Cancillería)” and the “Comisión Nacional de Prevención de Riesgos y Atención de Emergencias –CNE” are pleased to co-organize one week training on the use of geospatial information technology for rapid response mapping which will be hold in San Jose in October 2012:

“When disasters strike, the first thing the international early response community needs is information: What has happened, where did it happen, what is the effect, what response is needed? Not only can satellite imagery taken immediately after an event like an earthquake or tropical cyclone show what has happened through images of destroyed infrastructure or flood surge, but with their inherent geo-coding, one can tell immediately where the event took place and the apparent magnitude and impact of the disaster. This is key information for an efficient planning and coordination of emergency response operations as well as to perform a GIS based preliminary impact and damage assessment”.

EVENT OBJECTIVES

The aim of the course is to provide training participants with concepts and GIS methodologies to perform satellite based rapid response analysis including the understanding of the benefits and limitations of using geo-spatial information technology in the immediate aftermath of a disaster.

LEARNING OBJECTIVES

AT THE END OF THE COURSE STUDENTS SHOULD BE ABLE TO:
• Explain the role of Geo-information in the response phase of a disaster.
• Gain awareness of GIS methodologies related to the rapid mapping processing chain to support emergency response.
• Identify, access, search, collect, organize and analyses geospatial data for emergency response mapping.

• Apply basic GIS methodologies to perform impact analysis and preliminary damage assessment in the immediate aftermath of a disaster.

CONTENT AND STRUCTURE

Introduction to UNOSAT and introduction to training programme (Lecture)

Introduction to GIS and Remote Sensing (Lecture)

Introduction to ESRI ArcGIS Software: what is new in ArcGIS 10 (Lecture)

Getting familiar with ArcGIS (Arc Catalog) (Practical Exercise)

Getting familiar with ArcGIS (ArcMap) (Practical Exercise)

The Operational use of satellite imagery for emergency response (Lecture)

Field Visit and data collection (Practical)

Searching, exploring, gathering, integrating geospatial data for emergency response mapping (Lecture and Practical Exercise)

Impact Analysis and preliminary damage assessment using satellite images (Lecture and practical exercise)

Building damage assessment (lecture and practical exercise)

METHODOLOGY

This is a face to face course. Full time lectures and GIS lab exercises using real case disaster scenarios from past events (80% Lab Exercise, 20% lectures and discussions).

TARGETED AUDIENCE

Professionals working in governmental organizations who wish to strengthen their GIS skills in emergency response mapping. It is recommended that participants taking the course have a working knowledge of English including basic experience in GIS and Remote Sensing applications.