

# UNOSAT - Myanmar (Burma) Project

First Phase - UNOSAT Seeks Assistance of GISCorps Volunteers for Collecting Data in the Cyclone Nargis affected Areas of Myanmar (Burma)

Second Phase - UNOSAT Requests Additional GISCorps Volunteers to Collect More Data in the Delta Region

New York Times Using UNOSAT/GISCorps Volunteers' Assessments. [Click here.](#)

Read About Extended Cyclone Relief Efforts in an Article at Observing The Earth Website.

Read an article by Einar Bjorgo, Tom Ponte, and Karl Tiller [here.](#)

A few days after the Cyclone Nargis hit various areas of Myanmar (Burma), Einar Bjorgo, the Head of Rapid Mapping, Applications and User Relations of UNOSAT, the UN Institute for Training and Research (UNITAR) Operational Satellite Applications Programme, contacted GISCorps and shortly after that, submitted a request for 20 volunteers.

Figure 1: Four Feature types collected by GISCorps volunteers during the first 48 hours:

Road Points, Roads, Bridges, and Pagodas (Monasteries)

Based on the request, a job description was developed and on May 9th, 2008, a call for volunteers was sent out to various groups and list serves. Shortly after that, emails started pouring in and Core Committee member, Ingrid Bruce, who had taken charge of the recruitment process, selected 20 volunteers for the project in less than 48 hours.

Out of 20 volunteers, 11 of them who had remote expertise began working, under the direction of Tom Ponte, a GISCorps volunteer from Oregon. They were tasked with performing change detection analysis for various features such as: roads, buildings, bridges, monasteries, and etc. from Google Earth environment.

Figure 2: Zoomed in an area with several Pagodas (Monasteries) in various conditions

Group One, 11 Volunteers:

- 1. Bradley Lynch, GIS Specialist, Compliance Solutions Group, Louisiana
- 2. Etienne Ouellet, GIS Analyst, Ellipso Geo Consulting Inc., BC Canada
- 3. James Price, GIS Program Manager, US State Dept, Cyprus
- 4. Karl Tiller, GIS Consultant, Germany
- 5. Matt Pare, GIS Specialist, TRC Environmental, N. Carolina
- 6. Paul Vidal, GIS Analyst, FMSM Engineers, Kentucky
- 7. Robert Corrie, Remote sensing analyst, Remote Imaging, California
- 8. Todd Kesselring, GIS Analyst, University of N. Carolina
- 9. Tom Ponte, GIS Analyst, Oregon, Project Manager for Phase One

- 10. Tristan Wright, GIS Analyst, IHS Energy, Alberta, Canada
- 11. U Win, GIS Consultant, California

Figure 3: Zoomed in an area with multiple destroyed or flooded roads

The team also collected features such as roads and bridges from pre-disaster imagery. However, most of the features in phase one were collected from post-disaster imagery. Two examples were; Destroyed Buildings and Villages

Figure 4: Destroyed Buildings

Figure 5: Destroyed Villages

As of May 21st, GISCorps volunteers contributed over 400 hours in collecting over 6,500 features from Google Earth interface. Most of these features are collected from post-disaster imagery. The second phase of the project started on May 22nd and the task was to collect all the buildings in the delta region as they existed prior to the cyclone and from pre-disaster imagery.

Figure 6: Features collected as of May 21st.

At the conclusion of the first phase, the UNOSAT Project Manager, Einar Bjorgo, expressed their organization's appreciation as follows:

"GISCorps is really helping towards making a difference here."

"...what I can say is that the work done by GISCorps is very highly appreciated by the actors in the field, both as input to our maps, but also as standalone databases which they include in their various local GIS assessments. Every single volunteer should be proud of the work done and rest assured that the data are being used – and will continue to be used as we move into the reconstruction phase of this disaster." Einar Bjorgo, UNOSAT Head, Rapid Mapping, Applications and User Relations

The following map is one of many created by UNOSAT based on the work done by GISCorps volunteers. For more examples, go to UNOSAT's Website.

Figure 7: A map created by UNOSAT based on GISCorps Volunteers' work

## Second Phase of the Mission

On May 21st, UNOSAT requested another twenty volunteers to collect additional data in the delta region. As in phase one, Ingrid Bruce started the recruitment process and 20 volunteers were selected once again within 48 hours and 18 of them are currently collecting additional features from pre-disaster imageries. Karl Tiller from Germany was selected as the Project Manager for the second phase. As of June 10th 2008, the second group of volunteers have contributed over 900 hours into this mission and have collected over 54,000 features.

### Group Two, 18 Volunteers:

- 1. Frank, Hui-Kuo Yang, Project Manager, Industrial Technology Research Institute, Taiwan
- 2. Jim Cory, Systems Analyst, GeoAnalytics, Inc. Wisconsin
- 3. Julie Gee, GIS Technologist, Metrovancouver, Canada
- \* 4. Karl Tiller, GIS Consultant, Germany, Phase Two Project Manager \*
- 5. Karsten Dax, Executive Officer, Province governor, Norway
- 6. Kim Rohrs, Senior GIS Planner, Monroe County, Florida
- 7. Lalitha Jayaraman, GIS Mapping Analyst, BC Electoral Boundaries Commission, Canada
- 8. Mathew Coyle, Contract, UBC, BC, Canada
- \* 9. Matt Pare, GIS Specialist, TRC Environmental, N. Carolina \*
- 10. Michael Tuffly, GIS Analyst, ERIA Consultants, LLC, Colorado
- \* 11. Paul Vidal, GIS Analyst, FMSM Engineers, Kentucky \*
- \* 12. Robert Corrie, Remote sensing analyst, Remote Imaging, California \*
- 13. Scott Madry, Sr. Geospatial Scientist, UNC- RENCi, N. Carolina
- 14. Serene Ong, GIS Analyst, U. of Redlands, California
- 15. Timothy Caro-Bruce, Programmer, Urban Mapping, Inc., California
- \* 16. Todd Kesselring, GIS Analyst, University of N. Carolina \*
- \* 17. U Win, GIS Consultant, California \*
- 18. Walter Svekla, GIS Project Manager, M&M Solutions, LLC, New Jersey

\* = Volunteers who served in phase one and phase two

One of our volunteers who worked on both phases is U Win of Burmese decent who in addition to actively collecting various features for the project, has also compiled some photos and other images from the disaster and from different sources.

- [Click to see the photos.](#)

- Click to see images of destroyed villages.

U Win worked with a team of 4 volunteers who independently worked on this project and helped Win with digitizing locations of thousands of buildings and places of worship.

Four volunteers are:

- 1. James Chao, Software Engineer, Marvell Tech, California
- 2. James Walker, Geologist/GIS Specialist, Kleinfelder, California
- 3. Linda Sue, (Grad student - GeoSpatial/GIS), California
- 4. Zarni Kyaw, Accountant, Rexcourt Properties, Calgary, Canada

Quotes and messages from the first and second group of volunteers: "Helping communities by volunteering with the GISCorps is a great way to get valuable GIS experience. Not only are you communicating with GIS professionals around the world, you are assisting communities in need with valuable GIS information."

Tom Ponte, GIS Analyst, Oregon, Project Manager for Phase One

"I think GISCorps is a very important partner supporting agencies like UN or humanitarian NGOs in general and specially in emergency situations. Quick qualified delivery of geospatial products!"

Karl Tiller, GIS Consultant, Germany, Project Manager for Phase Two

"Being able to help others in need on the other side of the world from my home. I felt like I was giving back to all the people that helped my state (Louisiana) after Hurricane Katrina"

Brad Lynch, GIS Specialist, Compliance Solutions Group, Louisiana

"It's very rewarding to know you're generating data that will be utilized to help so many people. GISCorps is a great way to gain experience in something you might not ordinarily do in places you would not ordinarily know much about. More agencies should take advantage of this impressive resource."

Matt Pare, GIS Specialist, TRC Environmental, North Carolina

"Very spiritually rewarding."

U Win, GIS Consultant, Salinas, California

"Like the majority of people I heard about the disaster in Burma from the comfort of my home and I knew I wanted to help. But living thousands of miles away I was short on ideas. Armed with only a notebook computer and an internet connection GISCorps made it possible for me to make a difference, even if it was very small. I was happy to be a part of their team."

Robert Corrie, Remote Sensing Specialist, California

"The opportunity to help save lives, work with communities in crisis is very satisfying. Working with people from all nationalities and backgrounds via the internet to pull together new data using techniques and resources developed on the fly is exhilarating."

Todd Kesselring, GIS Analyst, North Carolina

"It was good to feel that we were in some way contributing to the recovery effort in Myanmar. With the restrictions on ground access imposed by the government it would be interesting to know if this data was actually of use to aid workers in the end."

Tristan Wright, GIS Analyst, IHS Energy, Alberta, Canada

"This is an excellent opportunity to put your GIS and image analysis training to work by supporting vital disaster assessment work. The ability to work via the internet and Google Earth makes it possible to make an important contribution without the cost and difficulty of traveling to the scene of a disaster. Please consider getting involved and putting your skills to work for a good cause."

Scott Madry, Sr. Geospatial Scientist, UNC- RENCi, North Carolina

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Scott also sent a link to a GISCorps related story on Google Earth's blog."In the US we get used to having all the base data we need. It was clear from this project that there is still a lot of data entry to do in the rest of the world."

Jim Cory, Systems Analyst, GeoAnalytics, Inc. Wisconsin

"I feel so happy to work and collaborate with volunteers around the world and to give whatever I can to contribute to the program of disaster estimation after cyclone in Burma."

Frank, Hui-Kuo Yang, Project Manager, Industrial Technology Research Institute, Taiwan

"Was glad to be able to contribute to an effort to help people in duress. Also good to (virtually) meet like-minded volunteers."

Timothy Caro-Bruce, Programmer, Urban Mapping, Inc., California

"It is very rewarding that we, as GIS professionals, can help in time of humanitarian need."

Michael Tuffly, GIS Analyst, ERIA Consultants, LLC, Colorado

"Cool feeling to sit alone but knowing there are others out there piecing together a puzzle. Hope this helped to also focus on people on forgotten islands afar the main roads."

Karsten Dax, Executive Officer, Province governor, Norway

"It's encouraging to see the global GIS community come together to lend support, and hopefully advances in technology and the continued allocation of time, skills and resources will increase the opportunities for humanitarian volunteerism."

Walter Svekla, GIS Project Manager, M&M Solutions, LLC, New Jersey

"It felt good to be able to contribute in some small way to the recovery effort, and to see how people around the world can rally in times of crises and have a virtual collaboration. I learnt a lot. Hopefully this will not be my last experience with GISCorps!"

Serene Ong, GIS Analyst, University of Redlands, California

"Restoring harmony, one step at a time."

Etienne Ouellet, GIS Analyst, Ellipso Geo Consulting Inc., BC Canada