Responding to the European Refugee & Migrant Crisis

A collaboration between GISCorps and UN/NGO organizations responding to the European Refugee & Migrant Crisis
Overview
With millions of people fleeing hardship and violence in Syria as well as many other countries, the humanitarian community is facing significant challenges. Coordinating the response to such a massive, long-term humanitarian situation across the many national, international, and local response actors requires collaboration and partnership. It also requires interoperable data so that everyone can have a common understanding of the crisis.
In response to this need GISCorps, collaborated with various UN and NGO organizations to map Communications infrastructure and to create and share Common Operational Datasets (CODs) for the European response. In this case the CODs were focused on the administrative boundaries and other key datasets such as settlements, roads and camp locations for the affected countries. These are important as they are used by the humanitarian community to develop reference maps and other thematic maps to assist coordination and implementation of humanitarian operations. They are the standard and agreed datasets for producing maps and managing geographic information.
The GISCorps team:
1. Provided mapping support for a number of countries including Croatia, FYROM, Greece, and Serbia. The mapping support included creating

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Overview maps (e.g. Overview Map of Leros, Croatia Overview maps)

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Operational maps showing the status of sites in terms of the availability of Communications infrastructure (e.g. Connectivity needs in Croatia)
2. Downloaded, cleaned and organized European Administrative Boundary Data to create the Common Operational Datasets for the European response. The achievements for this part of the project included:

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GIS data for 58 countries was downloaded from EuroGeographics and be organized

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Common Operational Data (CODs) for three countries was made publically available on HDX – see this blog post referring to the first two datasets that were published. More recently, datasets for Turkey have been published including Administrative Boundaries, Roads, Rivers, Settlements and Camps

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Data for a further two countries was published internally for use by the Regional Information Management Working Group for Europe

Mapping Support

The biggest challenges encountered for this work were:

 - Ensuring that we were using agreed UN symbology wherever possible

 - Automating the process of using icons as labels and changing the colors of the icons to communicate changes to the status of sites
UN Symbology
The resources that were found to help with this can be found on the Common Operational Datasets website here.

Code for Auto labelling ArcGIS Maps using varied icon colors to depict site status
The challenge here was to use the icons described above as labels that varied in color depending on operational status of the infrastructure being mapped.
The procedures can be seen on the Common Operational Datasets website here.

Common Operational Dataset Support
This part of the project aimed to make available the Administrative Boundary datasets (and other key datasets) for all countries affected by the European Refugee and Migrant Crisis. This required finding authoritative sources of data, performing the necessary cleaning and organizing of the data (including ensuring that each dataset matched up with the

names and codes being used by in-country humanitarian teams).

This part of the project was subject to many delays as it required a long chain of feedback between in-country and remote teams. The work for this project is still ongoing, but at a rate that can currently be handled without the need for ongoing GISCorps support. However, if workload increases, it would be good to be able to call on the support of GISCorps again, and therefore a section has been created on the on the Common Operational Datasets website to help communication during future collaborations related to Common Operational Datasets – the information is available here.

The GISCorps volunteer team who worked on this project were: Andy Priest, Frank McDermott, Beni Patel, and Sean Bohac.