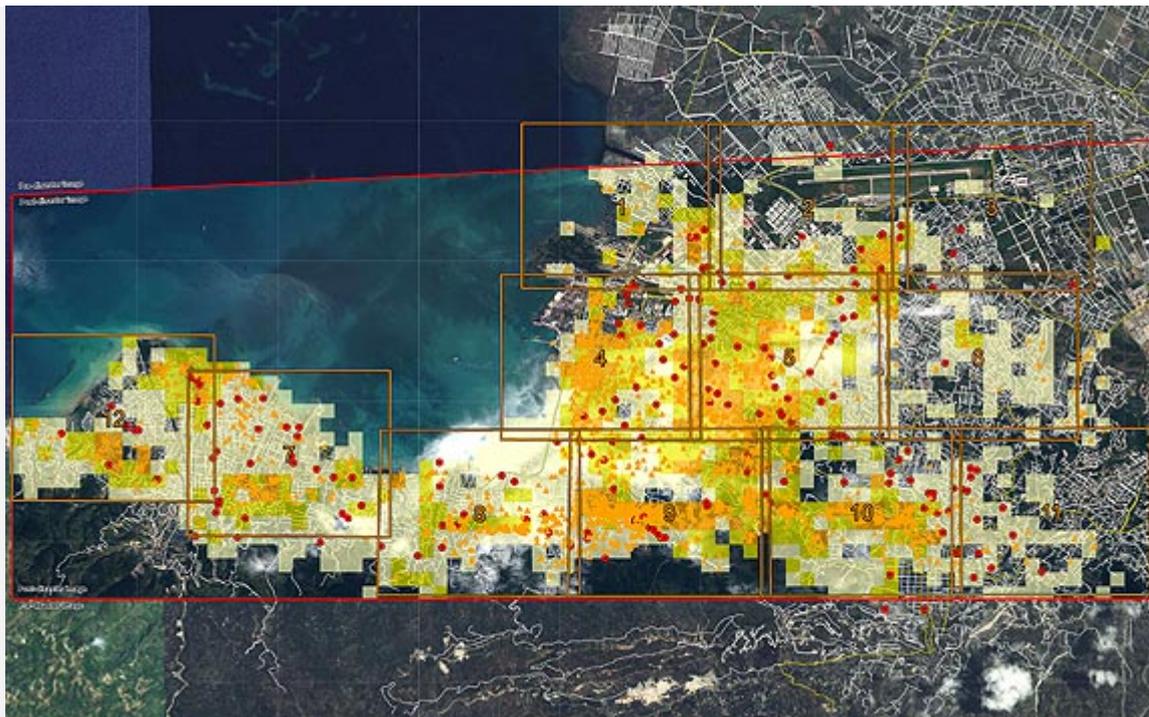


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DLR scientists support relief workers in Haiti earthquake disaster

16 January 2010

Following the devastating earthquake on Haiti, relief organisations require rapid, reliable and meaningful information on the local situation, the state of the infrastructure and the extent of the damage for their deployment in the disaster zone. In this context, scientists from the German Aerospace Center (Deutsches Zentrum für Luft- und Raumfahrt; DLR) are giving important support by providing free access to maps of the crisis region based on satellite data. At the moment, the researchers are focusing particularly on Port-au-Prince, the capital of the Caribbean island state, which has been particularly badly affected.



Damage evaluation map: Port-au-Prince following the earthquake on 12 January 2010

The geographer and DLR scientist Dr Tobias Schneiderhan is coordinating the work of the Center for Satellite Based Crisis Information (Zentrum für satellitengestützte Kriseninformation; ZKI) in the case of Haiti. ZKI is a part of DLR, under the umbrella of the German Remote Sensing Data Centre in Oberpfaffenhofen. On behalf of DLR, the centre belongs to the 'International Charter on Space and Major Disasters', an important initiative by space agencies in relation to natural disasters. Under the charter, ZKI makes available satellite data, particularly those from the TerraSAR-X satellite developed and operated by DLR, in crisis situations in Germany and worldwide, analyses satellite data and performs additional functions such as those of the coordinating project manager.

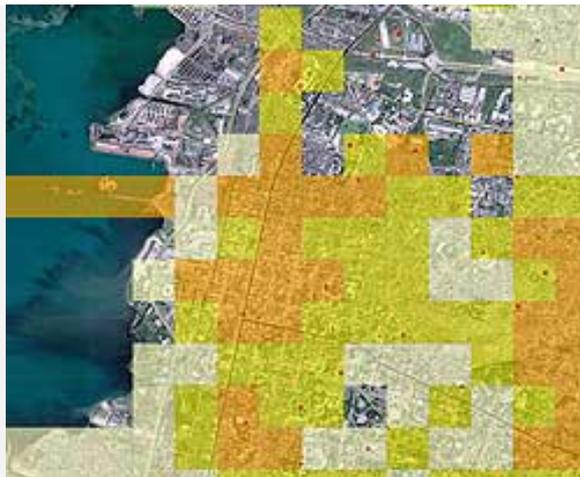
An overview for international relief organisations



The port area of Port-au-Prince before the earthquake on 12 January 2010

"A short time after the earthquake, which occurred at 21:53 UTC (16:53 local time) on 12 January 2010, the United Nations triggered what is known as a 'Charter Call'," Dr Schneiderhan explains. In Germany, the Joint Information and Situation Centre then requests satellite-based maps, which are specially produced for such an event, from the Federal Office of Civil Protection and Disaster Assistance (Bundesamt für Bevölkerungsschutz und Katastrophenhilfe; BBK). From here, the information is then passed on to, among others, relief organisations such as the German Federal Agency for Technical Relief (Technisches Hilfswerk; THW) or the German Red Cross. The initial assessment of the situation supports rescue teams in their work, but also provides assistance in the search for suitable locations for the installation of water treatment plants or mobile hospitals. At a European level, the ZKI products are used by the 'Monitoring and Information Centre' (MIC) in Brussels.

"With the earthquake in Haiti, we have a very complex situation with extremely extensive damage and very many affected people," Dr Schneiderhan says. In order to give the national and international relief organisations an overview of the nature and quantity of the destroyed infrastructure, about 25 DLR scientists have worked many shifts in recent days to collect, process and analyse radar and optical data. "We must process high resolution raw data as quickly as possible and make it available in the form of generally comprehensible maps so that the relief workers in the disaster area know which roads are still usable, where houses are standing, where there are open areas such as large car parks or stadia which could, for example, be used for emergency relief facilities," DLR scientist Schneiderhan explains.



Damage evaluation map: The port area of Port-au-Prince following the earthquake on 12 January 2010

Before-and-after comparison maps

Late on Friday evening, DLR researchers added a current map with information about the state of the infrastructure after the disaster to a quick reference map giving an overview of the road network as well as important buildings and facilities such as the airport as they were before the earthquake.

Alongside the overall view, users can also download sections of the complete map from the ZKI website showing individual tiles in detail.

ZKI is a service of DLR's German Remote Sensing Data Center. Its task is the rapid acquisition, processing and analysis of satellite data in the event of natural and environmental disasters, for humanitarian relief activities and for civil defence. The analysis is tailored to meet the specific requirements of national and international institutions as well as relief organisations.

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