# Photogrammetry, Remote Sensing, and Spatial Information Sciences in Disaster Management

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## Abstract

Disasters have to be considered as complex phenomena of multi-causal origin occurring within the complex frame of Earth-system. Disaster prevention is relatively under developed in comparison with disaster response and post-disaster activities. The disaster prevention task needs to be stressed and strengthen. There are information gaps between useful data providers and their end users at nearly all levels: e.g. between space data providers and scientific evaluators of disaster risks, between the latter and civil defense users, between civil defense information and general public. At the most general and the most important level, the gap exists between experts and scientists on one side, and decision makers and general public on the other one. Space technologies and space data are one of the most important inputs to the disaster management activities, but it has proven capability to provide critical support in terms as of very effective, remote sensing data from wide, and sometime hard to be reached areas, as well as of emergency communication. Most of the other methods are ground based, because of frequent requirements on relative very detailed spatial and temporal scales used in risk mapping and monitoring. To optimize the implementation of space technologies for natural and technological hazard evaluation, there is essential to use it in synergy with the ground based methods. In order to reduce the property losses after a disaster (earthquake) a quick response to the right places which needs help is a dominant task after a disaster. In most cases the information about the dimensions and extent of the disaster is gained after a long time. As in these cases the rapid response is the most important item concerning the aid management, gaining reliable and quick data is also a most important task. This presentation aims to demonstrate the role and potential use Phot&RemSens&SIS in Disaster Management whit examples of different regions of the world and to underline the role of international collaboration in disaster occurrences. The applications are based on the data gained after the Marmara Earthquake and also from various parts of the world. Then different international developments like “Disaster Charter” or about the Establish of an international space coordination body, identified as the “Disaster Management International Space Coordination Organization DIMISCO” according the recommendations of UNISPACE III will be explained in detail.

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