Role of Geospatial Professionals in Risk and Disaster Management and Preventing Natural Catastrophes

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ABSTRACT

Each year disasters, such as storms, floods, volcanoes, and earthquakes, cause thousands of deaths and tremendous damage to property around the world, displacing tens of thousands of people from their homes and destroying their livelihood. Many of these deaths and losses could be prevented with better information regarding the onset and course of such disasters. One of these catastrophes is the earthquake and recent events in Northridge, Kobe, Marmara Sea, South-east Asia and latest earthquakes in China were typical examples of what can happen when a major earthquake strikes directly under a densely populated area.

Geodetic science plays an important role in the earthquake research. By means of long-term measurement, deformations caused by the breakage of the earth crust caused by the moving plates can be examined. Photogrammetry and Information System techniques are new tools in the earthquake research. Terrestrial photogrammetric methods are used to document the damages after an earthquake.

The major aim of this presentation is to address the Role of Geospatial Professionals in the above mentioned areas.

BIOGRAPHICAL NOTES

Dr. Orhan Altan is Professor at the Department of Geodesy and Photogrammetry of Istanbul Technical University; published more than 160 papers in different journals and congress proceedings in English, German and Turkish, was editor or co-editor of 15 books and conference proceedings in Photogrammetry, Remote Sensing and Spatial Information Systems. He worked as guest professor at the Universities of Berlin, Munich, Stuttgart and the ETH-Z in different years and gave there lectures and seminars on the Use of Geo-information in different application areas. He is elected as President of the ISPRS during the Beijing Congress at July 2008 for the period 2008-2012.

His main working areas are Digital and Architectural Photogrammetry, Spatial Information Systems, Disaster-Risk Management and Deformation Measurements.

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