SYMPOSIUM ON INTEGRATED APPLICATIONS (B5)
Integrated Applications End-to-End Solutions (1)

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EXPLORING GNSS TECHNOLOGY FOR DISASTER MANAGEMENT IN DEVELOPING COUNTRIES

Abstract

SGAC is an international nongovernment organization with a volunteer membership network that consists of university students, young professionals and space enthusiasts between the ages of 18-35. Through their observer status at various UN committees, partnerships with space agencies and other international organizations, SGAC has provided a voice on space policy from a youth's point of view. Among other activities, SGAC carries out year-round projects. Two of the projects include the Youth for GNSS (YGNSS) and Space Technologies for Disaster Management. While YGNSS aims to promote education and outreach in the application and use of satellite navigation systems to the current and future youths; the group on Space Technologies for Disaster Management aims to promote awareness among youths and promote the use of space technologies in disaster management.

Noting the various applications of Global Navigation Satellite Systems (GNSS), it is necessary for the youths to be knowledgeable and involved in disaster management through the use of GNSS tools and technologies. The aim of this paper is to give a description of the current activities of these SGAC project groups, outputs from the Agency Session on GNSS Applications for Disaster Management at the 2010 Space Generation Congress in Prague, and provide an outlook for how developing countries with high rates for disasters can best utilize these technologies for disaster management recommendations. This paper will further discuss the technological, policy and economic challenges of using GNSS technology in developing countries.

GNSS technology is useful for risk assessment, prevention, mitigation, emergency response, during safe and rescue operations, and resettlement efforts. Furthermore, GNSS can be utilized in disaster forecasting, disaster management and post-disaster rescue efforts and to discuss possible implementation solutions that can be easily implemented in developing nations. It is hoped that there will be more synergy between the disaster management and space communities. It is also necessary to stress the need for capacity building in developing countries and how to apply space technologies for long term strategic development.