

Proposal for Forming an IAA Study Group SG 4.20

Title of Study:

Space Information Application in Earthquake Emergency Response

Proposer(s): Bao Weimin

Primary IAA Commission Preference: COMMISSION 4 Space Systems Operations & Utilization

Secondary IAA Commission Interests: COMMISSION 3 Space Technology & Systems Development

Members of Study Team

Chair(s): Bao Weimin (China), Co-Chair(s): Jean-Michel Contant (France) , Jan-Peter Muller (UK), Fumio Yamazaki (Japan)

Secretary:

Other Members:

China: Gu Xingfa, Zhang Jingfa, Shen Xuhui, Wang Xiaoqing, Shan Xinjian, Zhu Jianjun, Liao Jingjuan, Xu Jing, Wang Zhigang, Chen Yuanwei

UK: Li Zhenhong

Italy: Alessandro Ferretti, Paolo Ganba

Short Description of Scope of Study

In recent years, earthquake emergency response experiences, such as Wenchuan and Haiti earthquakes, indicate that it is necessary to bring together different satellite resources, including remote sensing satellite, communication satellite and navigation satellite, to support the earthquake emergency rescue. It also highlights the importance of international cooperation on satellite resources, which can help us to assign the distribution of earthquake emergency rescue resource, and to reduce the loss of life and property of the affected areas. An effective coordination policy will be established, which enables better coordinated remote sensing, communication and navigation satellite systems among different countries, so that technical capabilities will be better utilized and experts all over the world can be efficiently gathered after a devastating earthquake. The advantages will complement each other and provide emergency support for future strong earthquakes.

Overall Goal:

To coordinate the international remote sensing to make full use of international advanced technology and experience, to provide a platform for international experts to contribute their wisdom in earthquakes, to form a collaborative satellite rapid response mechanism for earthquake emergency response.

Intermediate Goals:

Integration and sharing of massive RS data; Innovation of the remote sensing in earthquake emergency theory and technology; Training of international young experts and the professional team; Formation of the exchange mechanisms of satellite information in earthquake emergency response; Enhance international exchange of remote sensing data and products in seismic disaster degree and extent; Construction of international cooperative on remote sensing of earthquake emergency response; Establishment of a platform for international experts in earthquake emergency response.

Methodology:

Setup an international study group, draft a detailed study schedule;

Agreement on a study report outline.

Assigning jobs regarding the report to members of the study team.

Coordination between the editor and other team members in compiling a coherent study report.

Work to be conducted through on-line collaboration and study group meeting held in the course of annual International Astronautical Congress and the IAA Spring meeting.

Time Line:

Draft outline of report : December 2015

Review outline of report and make assignments : September 2016

First draft of report : May 2017

Final report : April 2018

Final Product (Report, Publication, etc.):

Publishable report to be distributed to the space international community;

At least 3 papers publish in international Journals.

Target Community:

International space community, university, Earthquake Agency

Support Needed:

Communication of meeting opportunities at conferences

Potential Sponsors:

CASC, CEA

To be returned to the IAA Secretary General Paris by fax: 33 1 47 23 82 16 or

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Date:

Name:

(No Signature required if document authenticated).