

IAA Study Group Status Report

Responsible Commission: Commission 1 - Space Physical Sciences

Study Number and Title: SG1.14 - Title: Integrated Precursor Distinguish in Multi-Geophysical Fields around Global Earthquake Events with Magnitude larger than 7 in Recent 10 Years

Short Study Description (repeat from Study Group Proposal):

Earthquake anomaly distinguishing and determination is one of the most difficulties in the area of natural sciences in the world. Space observation have been showing strong capability to monitoring global seismicity and acquires ten`s times of case study than ground-based observation.

This proposal mainly focus on the case study of global strong earthquake during last 10 years to draw out the statistical characteristics of space-based precursors, including Ionospheric disturbances, Geomagnetic and geo-electrical fields, gravity field, infrared, remote sensing as well as crustal deformation by GNSS and InSAR, making connections among them in temporal and spatial distribution to ensure the reliability of anomaly and improve the distinguishing probability related to earthquakes, and try to make a proposal on global virtual system on earthquake monitoring from space by integrate different satellite resources with multi geophysical and geochemical parameters.

Developing and exploring the new way for earthquake monitoring and prediction, as well as the reliability analysis on anomalies in multi geophysical and geochemical parameters around same earthquakes. Advancing the establishment of the global virtual satellite constellation on earthquake monitoring, including electromagnetic, meteorological, infrared RS and hyper spectral satellites etc.

Progress in past six months:

Under the support of China Aerospace Science & Industry Corp., the project secretary Prof. Xuemin Zhang contacted with the IAA office and commission 1 secretary to confirm the appointment in this project, until now the project chair and co-chairs all send their approval letters to IAA office, and there are 11 scientists updating their information on the IAA website until now. There are only three experts have not turned back their acceptance in our study group member list, in which one have submitted his signature, and two have received our message and promise to send it back soon.

On Oct.8-13, 2015, Director Jian Wang from CEA, Prof. Xuhui Shen and Dr. Jianping Huang from the Institute of Crustal Dynamics, CEA, represented the study group to attend the IAA conference in Israel. They took part in the discussion meeting of Commission 1 on Oct. 10, and Dr Jianping Huang reported the progress of this project. The commission members all approved the significant development of this project.

The research on statistical analysis in the field of infrared, electromagnetic perturbations from satellite and ground-based observations, and hyperspectral gas, have been developed, and the global earthquakes with magnitude larger than 7.0 in recent 10 years have been studied and summarized.

Website Study Information update: (please give any update regarding Study Group Membership, documents, Study Plan and Schedule):

Three experts are still not listed on the website, the secretary will push them to send their acceptance ASAP.

Issues requiring resolution? (recommend approach):

Nothing.

Product Deliveries on Schedule? (If modified explain rationale):

Yes. Our study group was approved by the IAA in June 2015. We will complete the task in 3 years.

Study Team Member Changes? (List any Study Team Members that you wish to discontinue, and provide names plus contact coordinates of any Members you wish to add on the second page of this Study Update form.) Note: Complete contact information including email, tel. and fax must be provided for all additions. Only Members with complete contact information will be listed and receive formal appointment letters from the IAA Secretariat.)

Yes.

All the members whose names were not found in the membership list of IAA website about SG1.14 were provided again, and we ask the IAA office to send the appointment letter again to them to confirm in the end of February 2016, and most of them have send their acceptance back.

In the meantime, the most recent list of study group members includes:

Chair: Bao Weimin

Co-Chair: Contant Jean-Michel

Co-Chair: Kuznetsov Vladimir

Secretary: Xuemin Zhang

Membership:

Cao Jinbin

Chen Zhou

Du Jianguo

Hattori Katsumi

He Liming

Kodama Tetsuya

Ouzounov Dimitar

Parrot Michel

Picozza Piergiorgio

Shen Xuhui

Tramutoli Valerio

Name of person providing Study Group Status (Study Group Chair or Co-Chair):

Dr. Weimin Bao (Study Group Chair)

Status Report Date: March 3, 2016

Study Team Membership Changes

Effectivity Date:

Discontinue:

Name
Current email address

Name
Current email address

Name
Current email address

Add:

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