

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 kept contact 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 all of the members have sent back their appointment signature letter to IAA office. Prof. Zhang checked the website of SG1.14 group, and all the members have been listed in the website correctly.

On Nov. 11, 2016, we held a meeting of IAA SG1.14 on Chinese group, more than 10 scientists attended this meeting, in the domain of electromagnetics, thermal infrared, gravity field, remote sensing. In this meeting, the content of draft report was discussed and each section has been assigned to the specific person. According to the project plan, the final report of SG1.14 will be approved and published in the end of this year.

In March, Prof. Jingfa Zhang plans to attend the IAA commission meeting in Paris in March, who is the secretary of SG4.20. Prof. Xuemin Zhang will prepare the presentation and ask him to give the progress report of SG1.14 on that meeting.

Website Study Information update: (please give any update regarding Study Group Membership, documents, Study Plan and Schedule):
Nothing.

Issues requiring resolution? (recommend approach):

Nothing.

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

Yes.

In this year, the draft report will be finished in March with Chinese Edition, in July the English edition will be provided and in August it will be approved by the international members. By the end of 2017, the final report is planned to publish.

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.)

Nothing.

The list of study group members on the website is Ok. It includes:

Chair: Bao Weimin

Co-Chair: Contant Jean-Michel

Co-Chair: Kuznetsov Vladimir

Secretary: Xuemin Zhang

Membership:

Cao Jinbin

Du Jianguo

Hattori Katsumi

He Liming

Kodama Tetsuya

Liu Jann-Yenq

Ouzounov Dimitar

Parrot Michel

Picozza Piergiorgio

Pulinets Sergey A.

Ruzhin Yury

Shen Xuhui

Tramutoli Valerio

Zhou Chen

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

Study Group Chair: Academician Weimin Bao (Study Group Chair),

Secretary: Prof. Xuemin Zhang

Status Report Date: Feb. 21, 2017