UNITED NATIONS
Office for Outer Space Affairs

INFORMATION NOTE

(Hybrid Format) United Nations/Azerbaijan Workshop on the International Space Weather Initiative: The Sun, Space Weather and Geosphere

Organized jointly by
the United Nations Office for Outer Space Affairs and
the Baku State University

Co-sponsored by
the International Committee on Global Navigation Satellite Systems (ICG)

Baku, Azerbaijan
31 October – 4 November 2022

1. Introduction

Globally there is growing interest in better understanding solar-terrestrial interactions, particularly patterns and trends in space weather. This is not only for scientific reasons, but also because the reliable operation of ground-based and space-based assets and infrastructures is increasingly dependent on their robustness against the detrimental effects of space weather.

The International Space Weather Initiative (ISWI) is a program of international cooperation to advance space weather science by a combination of instrument deployment, analysis and interpretation of space weather data from these instruments in conjunction with space data, and the communication of the results to the public.

The further goal of ISWI is to develop the scientific insights necessary to understand the science, and to reconstruct and forecast near-Earth space weather. This includes instrumentation, data analysis, modelling, education, training, and public outreach.

All achievements of international cooperation and coordination for ISWI, including instrumentation, data analysis, modelling, education, training and public outreach, are made available through the ISWI Newsletter and the ISWI Website (http://www.iswi-secretariat.org/).

A five-day ISWI workshop will be held in Baku, from 31 October through 4 November 2022. This workshop is being organized by the United Nations Office for Outer Space Affairs in cooperation with the Baku State University. The workshop is supported by the International Committee on Global Navigation Satellite Systems (ICG).

2. Objectives and Expected Outcomes

The main objectives of this workshop are to continue efforts in the deployment of instruments in developing nations and interpretation of space weather data; to focus on new research results and findings; and at the same time aim at strengthening international coordination and cooperation on space weather products and services.

The expected outcomes of the workshop will be recommendations for improved collection, exchange and delivery of space weather data, as well as improved operational analysis, modelling and forecasting methods through the promotion of best practices, suggestions of means to improve accuracy, reliability and interoperability.

The discussions at the Workshop will also be linked to the 2030 Agenda for Sustainable Development and to its targets set out for Sustainable Development Goals (SDG). The workshop will contribute to:

- *SDG 4: Quality Education.* Continuation of the efforts in space weather education in order to better define and characterize severe space weather events and their probability of occurrence and assess their impacts on technological systems.

- *SDG 9: Industry, Innovation and Infrastructure* in the area of protecting infrastructure from space weather. Effects on the ground can include damage and disruption to power distribution networks, increased pipeline corrosion, and degradation of radio communications.

- *SDG 17: Partnerships for the Goals.* International coordination of operational space weather services, including monitoring, forecasting,

The observations and recommendations emanating from the workshop will be disseminated in form of report of the Committee on the Peaceful Uses of Outer Space (COPUOS) to the United Nations General Assembly.

3. Preliminary Programme of the Workshop

The workshop will consist of a series of technical presentations, panel discussions and working group sessions. As a preliminary suggestion the following are the topics of the workshop:

- Solar Physics
- Solar Effects
- Sun-Earth Connection
- Space Weather Instrumentation and Data
- Space Weather Modelling
- Space Weather effects on global navigation satellite systems
- Geosphere
- Magnetosphere-Ionosphere-Thermosphere Coupling
- National space weather programmes and studies
- Education and Outreach

4. Working Methods

Participants of the workshop are requested to deliver a presentation paper in a field related to the topics of the workshop. It is also necessary to submit an abstract of presentation with a maximum of 600 words including the following details: *Paper Title, Author (s) Name(s), Affiliation(s), and e-mail address* for the presenting author. **Applicants are requested to *use* the *template* to present an *abstract* in the required format.**

A poster exhibit will also be organized to allow speakers and participants to present their ideas and to share them with other participants.

Presentations made at the Workshop will be published on the website of the Office for Outer Space Affairs (www.unoosa.org) approximately two weeks after the workshop.

5. Expected Participants

Applicants should be involved in space weather research activities in national or international organizations, research centres, academic institutions or industry. **Applications from equally qualified female applicants are particularly encouraged.**

The workshop programme committee, organized by an international group of space weather scientists, will select participants on a competitive basis. Successful applicants will be notified of the outcome within three weeks after the deadline.

6. Language of the Workshop

Applicants must have a working knowledge of English, which will be the only language of the workshop.

7. Financial Support

Within the limited financial resources available, a limited number of selected participants will be offered financial support to attend the workshop. This financial support will defray the cost of travel (a round trip air-ticket – most economic fare – between the airport of international departure in their home country and Baku, Azerbaijan) and/or the room and board expenses for the duration of the workshop.

8. Deadline for Submission of Applications and Abstracts

The completed application form together with the presentation abstract should be submitted on-line **no later than Monday, 15 August 2022.** Only complete applications with all the requested information and signatures will be considered by the workshop organizing committee.

Please note that on-line application form is available on the web site of the Office for Outer Space Affairs at the following address:

https://forms.office.com/Pages/ResponsePage.aspx?id=2zWeD09UYE-9zF6kFubccAiOPlMdD9xBh9lcdTTfu19URU5XMTBYNkcyNFQ4RlJQMUhQOFpESVVPRy4u

9. Life and Health Insurance

Life and major health insurance are the responsibility of each selected participant or participant's nominating institution or government. The co-sponsors will neither assume any responsibility for life and major health insurance, nor for any other expenses related to medical treatment or accidental events.

10. Sponsorship of the Workshop

The United Nations Office for Outer Space Affairs and the Baku State University are responsible for organizing the workshop. ICG is a co-sponsor of the workshop. **Sponsorship of the workshop is still open to interested entities.**

11. Further Information and Points of Contact

For information regarding the submission of nominations for attendance and funding, please contact Mr. Patrick Gindler, United Nations Office for Outer Space Affairs, at the following e-mail address: (patrick.gindler@un.org).

For information regarding the workshop programme, please contact Ms. Sharafat Gadimova, United Nations Office for Outer Space Affairs, at: (sharafat.gadimova@un.org).

The focal point for Azerbaijan, Mr. Elchin Babayev, Chair, the Local Organizing Committee, the Baku State University, can be contacted at: (elchin.babayev@gmail.com or mahir@bsu.edu.az)

For the latest information on the workshop, please frequently check the website: https://www.unoosa.org/oosa/en/ourwork/psa/schedule/2022/2022-iswi-workshop.html