



IAEA

International Atomic Energy Agency

Atoms for Peace and Development

Technical Meeting on the Use of Uncrewed Aerial Systems for Radiation Detection and Surveillance

Hosted by the

Government of the Czech Republic

through the

National Radiation Protection Institute (NRPI)

Brno, Czech Republic

26 to 30 September 2022

Ref. No.: EVT1905338

Information Sheet

Introduction

The growing sophistication, availability, and adaptability of uncrewed aerial systems (UASs), commonly referred to as “drones,” have made them both an emerging capability and threat for nuclear security. From personal recreation to military applications, modern UASs come in a wide range of sizes, shapes, cost, and capabilities for which greater understanding and assessment are needed for both the potential use of, and countermeasures against, UASs to support Member States’ nuclear security programmes.

The Technical Meeting on the Use of UASs for Radiation Detection and Surveillance is part of a series of events that will address the need for improved research, development, training, testing and guidance on UASs in radiation detection and surveillance operations for nuclear security and environmental remediation and monitoring. This need was identified in the 2nd Technical Meeting on Radiation Detection Equipment for Nuclear Security, in April 2018.

Objectives

The primary objective of this Technical Meeting is to address pressing concerns regarding use cases, capabilities, and specifications for uncrewed aerial systems (UASs) that are used for radiation detection and surveillance purposes. The meeting will be jointly hosted by the Division of Nuclear Security, Department of Nuclear Safety and Security and the Division of Physical and Chemical Sciences, Department of Nuclear Applications and will focus on building capacity and understanding within Member States regarding this topic.

Additional objectives include:

- Characterize the capabilities of UASs that are currently available on the market;
- Encourage information sharing related to best practices for use and evaluation;
- Discuss future performance test methods that are related to field and operational environments; and
- Capture Member State needs and functional requirements that can be used to inform international standards and specifications.

Target Audience

Individuals with expertise in designing, configuring, testing, and/or use of uncrewed aerial systems (UASs) and instrument payloads for radiation detection and security surveillance purposes. Target participants shall have extensive relevant experience and capable of making a presentation in English to support discussions and document preparation on the topic.

Working Language(s)

The working language of the event will be English. All communication and papers must be sent to the IAEA in English. No simultaneous interpretation will be provided.

Structure

The event programme will take place over five days and consists of four days of discussion, and one day of field demonstrations of UASs. The discussion days will include morning plenary sessions on specific topics related to UASs and afternoon working group sessions on focused sub-topical areas. One day will include demonstrations of UASs.

Topics

The topics covered in the Technical Meeting will include but are not limited to:

- Development of Uncrewed Aerial Systems Technology
- Radiation Sensors for Uncrewed Aerial Systems
- Supplementary Surveillance Sensors for Uncrewed Aerial Systems
- Uncrewed Aerial Systems Radiological Data Processing and Post-Processing
- Uncrewed Aerial Systems Data Transmission
- Commercial Off-the-Shelf Versus Custom Built Designs
- Operational, Legal, & Policy Considerations for Uncrewed Aerial Systems
- Experiences and Lessons Learned Using Uncrewed Aerial Systems for Radiological Detection and Security Surveillance.

Participation and Registration

All persons wishing to participate in the event have to be designated by an IAEA Member State or should be members of organizations that have been invited to attend.

In order to be designated by an IAEA Member State, participants are requested to send the Participation Form (Form A) to their competent national authority (e.g. Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) for onward transmission to the IAEA by **19 August 2022**. Participants who are members of an organization invited to attend are requested to send the Participation Form (Form A) through their organization to the IAEA by the above deadline.

Selected participants will be informed in due course on the procedures to be followed with regard to administrative and financial matters.

Participants are hereby informed that the personal data they submit will be processed in line with the [Agency's Personal Data and Privacy Policy](#) and is collected solely for the purpose(s) of reviewing and assessing the application and to complete logistical arrangements where required.

Papers and Presentations

The IAEA encourages participants to give presentations on the work of their respective institutions that falls under the topics listed above.

Participants who wish to give presentations are requested to submit an abstract of their work. The abstract will be reviewed as part of the selection process for presentations. The abstract should be in A4 page format, should extend to no more than one page (including figures and tables) and should not exceed 250 words. It should be sent electronically to Mr Charles Massey, Mr Petr Sladek, and Ms Kelly Jenkins, the Scientific Secretaries of the event (see contact details below), not later than **19 August 2022**. Authors will be notified of the acceptance of their proposed presentations by **26 August 2022**.

In addition, participants have to submit the abstract together with the **Participation Form (Form A)** to their competent national authority (e.g. Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) or their organization for onward transmission to the IAEA not later than **19 August 2022**.

Expenditures and Grants

No registration fee is charged to participants.

The IAEA is generally not in a position to bear the travel and other costs of participants in the event. The IAEA has, however, limited funds at its disposal to help meet the cost of attendance of certain participants. Upon specific request, such assistance may be offered to normally one participant per country, provided that, in the IAEA's view, the participant will make an important contribution to the event.

The application for financial support should be made using the **Grant Application Form (Form C)** which has to be stamped, signed and submitted by the competent national authority to the IAEA together with the **Participation Form (Form A)** by **19 August 2022**.

Visas

Participants who require a visa to enter Czech Republic should submit the necessary application as soon as possible to the nearest diplomatic or consular representative of Czech Republic.

Organization

Scientific Secretary

Mr Charles Daniel Massey
Division of Nuclear Security
Department of Nuclear
Safety and Security
International Atomic Energy
Agency
Vienna International Centre
PO Box 100
1400 VIENNA
AUSTRIA

Tel.: +43 1 2600 23146
Fax: +43 1 26007
Email: C.Massey@iaea.org

Co-Scientific Secretaries

Mr Petr Sladek
Division of Nuclear Security
Department of Nuclear
Sciences and Applications
International Atomic Energy
Agency
Vienna International Centre
PO Box 100
1400 VIENNA
AUSTRIA

Tel.: +43 1 2600 28622
Fax: +43 1 26007
Email: P.Sladek@iaea.org

Ms Kelly Jenkins

Division of Nuclear Security
Department of Nuclear
Safety and Security
International Atomic Energy
Agency
Vienna International Centre
PO Box 100
1400 VIENNA
AUSTRIA

Tel.: +43 1 2600 26632
Fax: +43 1 26007
Email: K.Jenkins@iaea.org

Administrative Secretaries

Ms Lai Peng

Division of Nuclear Security
Department of Nuclear Safety and Security
International Atomic Energy Agency
Vienna International Centre
PO Box 100
1400 VIENNA
AUSTRIA

Tel.: +43 1 2600 25888
Fax: +43 1 26007
Email: L.Peng@iaea.org

Ms Ragdaa Attia

Division of Nuclear Security
Department of Nuclear Sciences and
Applications
International Atomic Energy Agency
Vienna International Centre
PO Box 100
1400 VIENNA
AUSTRIA

Tel.: +43 1 2600 28227
Fax: +43 1 26007
Email: R.Attia@iaea.org

Subsequent correspondence on scientific matters should be sent to the Scientific Secretary/Secretaries and correspondence on other matters related to the event to the Administrative Secretary.