

EURADOS webinar:

The use of unmanned aerial systems to characterize the radiological situation in the aftermath of an accident

Introduction

Ulrich Stöhlker

Chair of WG3 (Environmental Dosimetry) /

Subgroup 1 (Spectrometry systems for Environmental dosimetry)

- **Associate Members**

Almost 600 active scientists contributing to the overall EURADOS objectives

- **Eight EURADOS Working Groups**

- Harmonization of Individual Monitoring (P. Gilvin, U.K.)
- Environmental Dosimetry (A. Vargas, Spain)
- Computational Dosimetry (H. Rabus, Germany)
- Internal Dosimetry (B. Breustedt, Germany)
- Radiation Dosimetry in Radiotherapy (L. Stolarczyk, UK)
- Retrospective Dosimetry (L. Ainsbury, U.K.)
- High-Energy Dosimetry (M. Caresano, Italy)
- Dosimetry in Medical Imaging (Z. Knezevic, Croatia)



Activities of EURADOS (European Radiation Dosimetry Group) :

- Coordination of working groups
 - which promote technical development and its implementation in routine work
 - which contribute to harmonization within Europe
 - which perform scientific research
- Organization of intercomparisons and bench mark studies
- Organization of scientific meetings and conferences, training activities, winter schools
- Organization of Annual Meeting (>300 participants)

WG3 is divided in 3 subgroups

- **Subgroup WG3-S1 “Spectrometry systems for Environmental dosimetry”
– early warning networks (U. Stöhlker).**
Creation 2012
- **Subgroup WG3-S2 “Passive Environmental dosimetry” (C. Hranitzky →
S. Neumaier)**
Creation 2014
- **Subgroup WG3-S3 “Radon” (A. Röttger).**
Creation 2018

Goals of WG3-S1

Integration of spectrometric systems to provide nuclide specific information for the characterization of the radiological situation

Goal of this working group is to focus on the development and improvement of spectrometric analysis techniques with the aim to support the introduction of stationary and mobile spectrometry systems:

- to establish theoretical and experimental framework for the development and operation of spectrometry systems supplementing gamma dose rate detectors,
- to describe technical solutions,
- to develop software for tailored gamma ray analysis and nuclide identification,
- to define test procedures to be applied in the annual EURADOS inter-comparison, exercises
- to develop harmonization strategies and to perform long term studies and testing.

Work is organized in work packages and includes joined activities with [16ENV04 Preparedness](#)

- **WP1.** *“Methods for calculation of $H^*(10)$ of spectroscopy monitors”.*
- **WP 2.** *“Tools for spectrum analysis including energy re-calibration”.*
- **WP3.** *“Harmonization of dose rate monitors and spectroscopy detectors including uncertainties”.*
- **WP4.** *“Development of **airborne spectrometric detectors for UAV-based** systems including calibration procedures and comparison exercises”.*

Agenda

1. Introduction. Ulrich Stöhlker (EURADOS) and Florian Gering (NERIS)
2. IAEA - Current Status in UAV Based Radiation Monitoring Technology. Petr Sladek (IAEA)
3. Unmanned aerial detection of radiological data - Results of the EMPIR “Preparedness” project. Arturo Vargas (UPC – EURADOS)
4. Use of the monitoring information gathered by the UAV technologies in Decision Support Systems. Geert Olyslaegers (SCK CEN – NERIS)
5. Webinar pull
6. Question and Comments

**Please use input field in the Q&A section to formulate your questions.
Questions will be collected and answered at the end of the webinar.**

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