

Training of monitoring teams



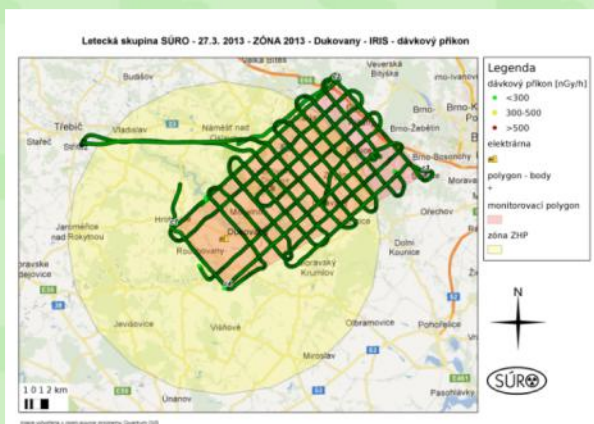
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A large Chinook helicopter is parked on a paved tarmac under a clear blue sky. The helicopter is silver with black and yellow markings, including the number '0849' on its side. It has a tandem rotor configuration. The background shows a grassy field and a fence.



Tisa 2017 exercise with Czech Army



Airborne exercises (with Czech Army, or Czech Police)



Check our poster for more information



Training of monitoring teams

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Within the Radiation Monitoring Network of the Czech Republic one airborne group and 27 mobile (ground) groups operate in the following departments now: the State Office for Nuclear Safety (SÚJB), the Ministries of the Interior, Defence and Finance. The training of these groups (theoretical part and practical exercises of individual activities) takes place within individual ministries separately or on the basis of bilateral agreements among them. The ministries are responsible for the training of their mobile groups.

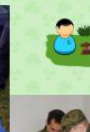
Every two years the emergency exercise of the crisis management "ZONA" in the emergency planning zone of NPP Dukovany or Temelin organized by the General Directorate of the Fire Rescue Service in cooperation with SÚJB takes place. The exercise also includes a monitoring of radiation situation by airborne and ground mobile groups.

The poster shows the activities of mobile groups during the "ZONA 2017" exercise and the training of individual activities of the SÚJB mobile teams and the Czech Army "Tisa 2017".

Who	Task	Devices/aids	How often
Ground mobile group	1 Dose-rate	GR135, FH40	1x month
	2 Mapping of dose-rate	System MobDose (Nuvia)	1x month
	3 Scintillation spectrometry	GR135 Exploranium	1x year
	4 Surface contamination (persons, cars, devices)	Contamat, Berhold	1x year
	5 Searching for "orphans"	GR135 Exploranium	1x year
	6 Usage of protective equipment	Personal electronic dosimeters	1x year
	7 Sampling	Collection kit	1x year
	8 Change of TL-detectors	TL detectors	4x year
Specialized ground mobile group	9 HPGe spectrometry	Falcon, HPGe Ortec (15%)	4x year
	10 Aerosols sampling	Dwarf Senya	1x year
	11 Scintillation spectrometry (dose-rate on board/1m above ground mapping, activity of manmade radionuclide mapping)	IRIS (Integrated Radiation Information System); NaI(Tl) detector (16 l); GPS, Altimeter	2 - 4 x year
Airborne group	12 Dose-rate on board	Plastic detector (4.SI)	
	13 HPGe spectrometry (activity of manmade radionuclide mapping)	HPGe Ortec (50%) + GPS	

Tisa 2017:

- goal: to train particular activities
- location: Czech Army training area
- organized by: SÚJB + SÚRO
- yearly, 2-3 days



Emergency exercise ZONA 2017:

- topic: activities of selected central/regional authorities etc. during a simulated NPP accident. Includes monitoring of the radiation situation using ground and airborne mobile groups.

- organized by: SÚJB and Fire Rescue Service (HZS); once per every 2 years
- monitoring teams: SÚJB, HZS, Czech Army (AČR)

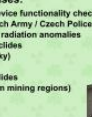
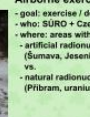
- goal: training and verification of particular activities in early and intermediate phase of the accident including personal protection, cooperation of all teams and crisis management, tests and practice of monitoring routes in NPP emergency planning zone, work in stress (simulated road accident -- need to choose a new monitoring route), sampling of the environment, handover of samples and measured data, surface contamination checks



Airborne exercises:

- goal: exercise / device functionality check, airborne vs. ground data comparison, testing new devices

- who: SÚRO + Czech Army / Czech Police
- where: areas with radiation anomalies
- artificial radionuclides (Šumava, Jeseníky)
- vs. natural radionuclides (Přibram, uranium mining regions)



Conclusion:

At the end of each exercise, the exercise was evaluated by both organizers and participants. Errors were reported to members of mobile groups and problems regarding the tasks were discussed.

Integral part of each exercise is a calibration and comparison of instruments compatibility.

Several conclusions were drawn from the exercise:

- measurement of surface contamination is the biggest problem
- need to practice work in a contaminated environment
- mobile group equipment is sufficient for all the needed tasks, but it is necessary to think about replacing the old GR 135 devices
- airborne monitoring group equipment is sufficient, it is necessary to develop a new software for the evaluation of the measured data

The poster is drawn up on the basis of the Ministry of the Interior Project results, ID: VH2017202006

Created with GIMP, Inkscape, LibreOffice