

Requirements for CBRN Detection Equipment

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Austrian Red Cross



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About me ...



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The Red Cross – A worldwide movement

Until today the worldwide Red Cross and Red Crescent Movement has grown onto 186 national societies – as is the Austrian Red Cross. About 100 billion people in 186 countries work for the movement!



Mission Statement

„to improve the lives of the most vulnerable
by mobilizing the power of humanity“

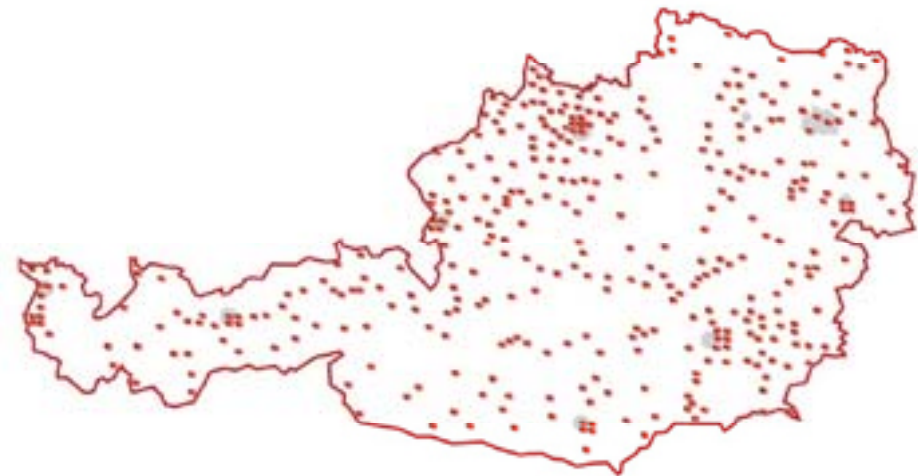


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The Austrian Red Cross – Austria's largest humanitarian NPO

Founded 1880 as national institution for humanitarian aid.

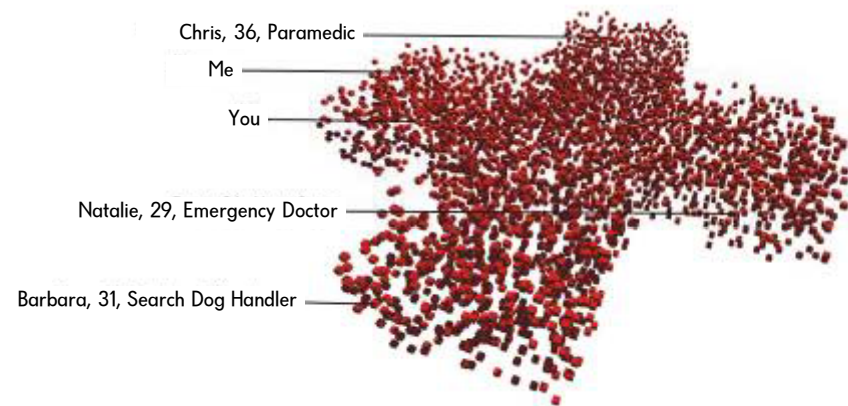
- 48,689 volunteers
- 5,605 employees
- 3,629 community servants
- 776,723 supporting members



Status 2008

The Austrian Red Cross – Fields of Activity

- Rescue and Ambulance Service
- Disaster Relief
- Blood Program
- Health and Community Services
- Development Cooperation
- Dissemination of International Humanitarian Law
- Tracing Service
- Training Services
- Migration
- Austrian Youth Red Cross





The Austrian Red Cross – Decontamination Units

- The Austrian Red Cross is the only NPO in Austria that operates Decontamination Units for injured people. They are located in:
 - Upper Austria (Wels)
 - Lower Austria (Mödling)
- We decontaminate injured people with CBRN contamination, but we are also able to decontaminate uninjured (walking) people.





Detection equipment – Chemical agents

- At the moment we have no detection equipment for chemical agents of our own.
- A purchase is planned on a long-term basis.
- Until then we rely on external experts (e.g. fire brigade).
- What kind of information do we need for the buying decision?
 - experiences from other emergency services
 - test reports
 - market survey
- Training on the equipment is very important!
 - by the manufacturer
 - by a certified training centre



Detection equipment – Biological agents

- At the moment we have no detection equipment for biological agents of our own.
- A purchase is not planned.
 - Due to the incubation period, the place of the symptoms' appearance is most likely not the place where the infection occurred.
- We rely on external experts (e.g. biologists).



Detection equipment – Radiological & Nuclear agents (1)

- We have our own detection equipment for radiological and nuclear agents (SSM1 with an external probe).
- It is used for detection of contamination (activity) before and after decontamination.
- The specific nuclide is not detected, this has to be done by health physicists.



Detection equipment – Radiological & Nuclear agents (2)

- Reasons for the buying decision:
 - detailed information from the vendor
 - other emergency services in Austria use the same device (fire brigade, police, armed forces)
 - I have worked with this equipment before
- Training on the equipment by the vendor would have been possible, but was not needed (I did the training of my staff by myself).
- We are satisfied with the device and we would buy it again.



Detection equipment – Requirements (1)

- Handling:
 - large, illuminated buttons (the device is used with protective gloves and/or protective clothing)
 - large, illuminated display
 - portable, lightweight



Detection equipment – Requirements (2)

- Operation:
 - robust for handling
 - water-resistant, weather-proof, dust-proof
 - insensitive to variation of temperature
 - insensitive to electromagnetic influences
 - simple operation
 - unmistakable results
 - traffic light principle (red, yellow and green light) to make the evaluation of the measurement result easier
 - self-test to ensure the correct operation of the device



Detection equipment – Requirements (3)

- Maintenance:
 - standard batteries (flexibility, easy supply with replacement material)
 - standard charging device
 - maintenance without special tools



Detection equipment – Requirements (4)

- Miscellaneous:
 - data interface (e.g. serial interface, Bluetooth)
 - logging of the measurement values (history)
 - should be possible to seal the device (to check, if the device has been opened)
 - should be possible to transport the device in planes (IATA regulations for dangerous goods, e.g. reference radiation source)
 - device should be approved for verification/calibration, if applicable



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Thank you for your attention!