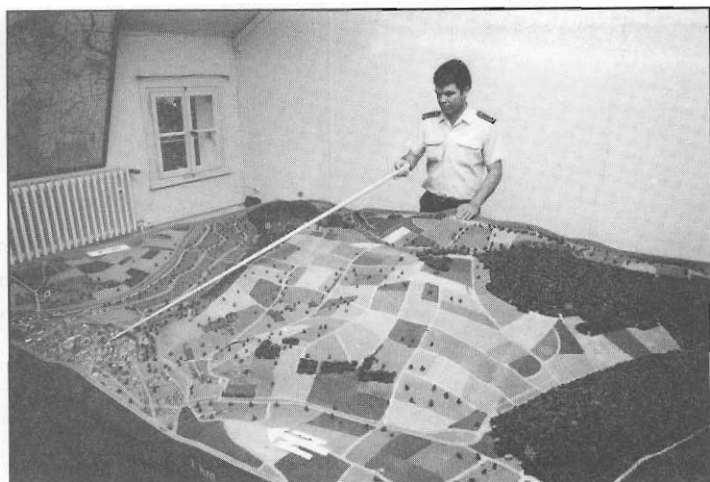
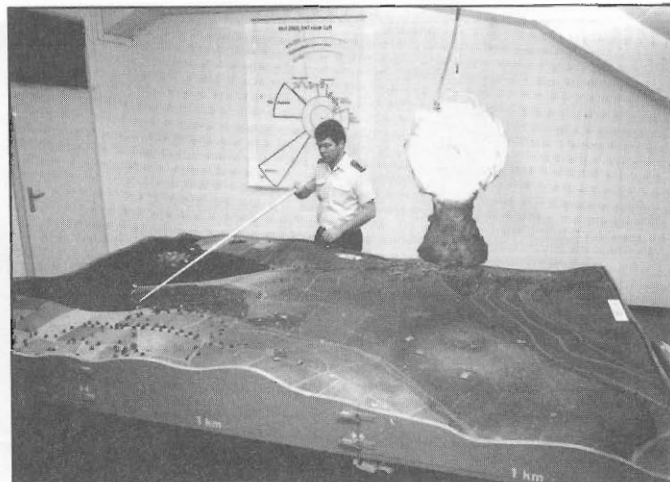




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Training Tools

— provide realistic training at German NBC Defense School

By MAJ Walter W. Polisy

The German NBC Defense and Self-Protection School at Sonthofen, West Germany, has the mission to train the German Army, Navy, Air Force, and Federal Civilian Agencies in NBC defense, self-protection measures, radiation safety, and environmental protection. This last task was given to the school in 1990, and training in environmental protection will not begin until late 1991. The other tasks have been taught for several years, and some interesting and innovative training support tools have been developed to assist in their training.

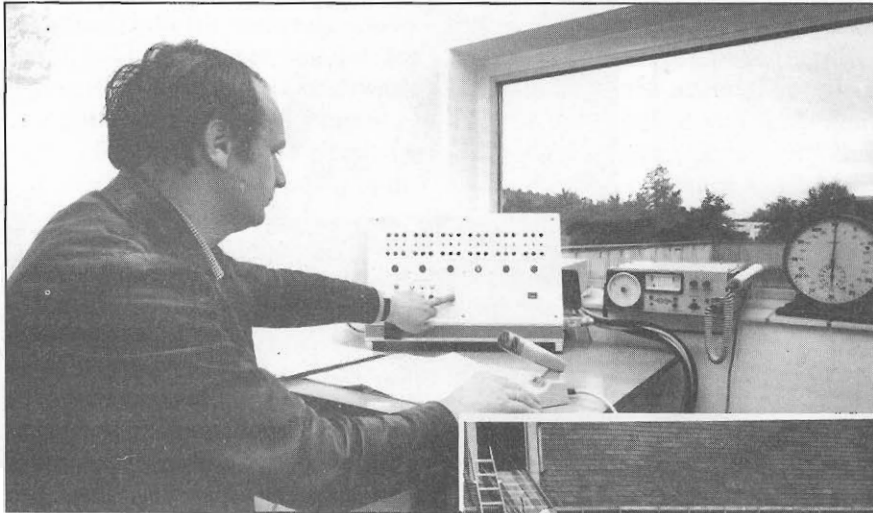
Photo 1 (top) shows a terrain board model of a small village and neighboring farmlands. The terrain represented here is used in several training exercises conducted at the NBC Defense School, which range in

level from battalion staff through corps commander. The "after" photograph, shown in photo 2 (top), demonstrates the effects of a nuclear weapon on terrain and equipment. Photo 3 (right) shows the device used to demonstrate wind vectors and their impact on fallout. After the students calculate a fallout prediction, the device drops four different sizes of sand from a hopper. Each size of sand particles is a different color (red, green, yellow, or blue). Five sets of fans, representing wind vectors, affect

the speed and direction of the fallout. The speed and direction of the fans can be varied, allowing different fallout predictions to be calculated,



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be exposed, allowing students at selected monitoring points to take radiation readings.

The use of nuclear weapons, conventional weapons, natural disasters, or industrial accidents can cause blast damage, fires, or trauma injuries. One role of the German NBC Defense Corps is to be the experts on rescue and recovery. There are several large rubble piles where students learn to detect, locate, and rescue trapped personnel (photos 5 and 6). These rubble piles offer additional challenges of "broken" water mains, tunnels, fires, and other "injured" personnel



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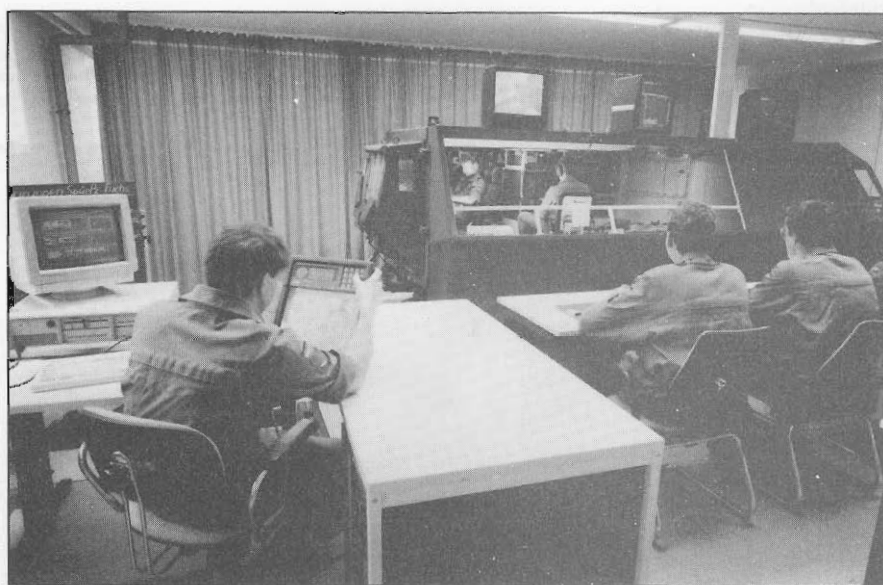
needed rescuing.

Decontamination training is not neglected. Picture 7 shows a tank undergoing decontamination for radiation contamination. A soapy, anti-surficant and tenside reducer simply and effectively washes fallout from the vehicle.

In photo 8, a German Air Force NCO uses C8 emulsion to neutralize and remove any chemical contamination from an old F-104 fighter plane. The C8 emulsion requires no scrubbing or brushing, is non-corrosive, and

plotted, and then demonstrated.

Photo 4 shows the control room of the radiation field used in fallout monitoring training. This training area is based on the old "Rideout Field" at Fort McClellan. Up to 18 different sealed, remote-controlled sources can



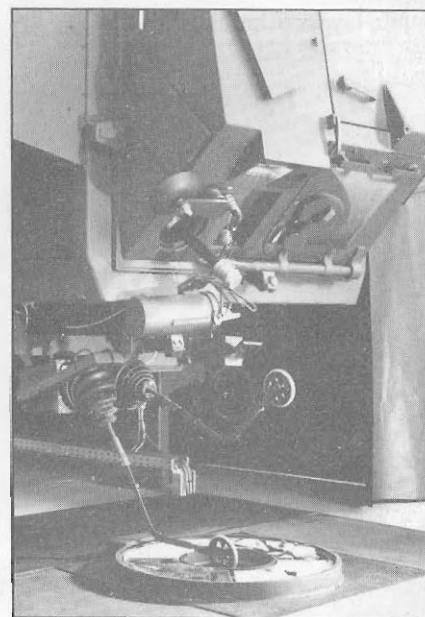
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can be dyed a brownish-green color for camouflage purposes without any loss of its decontamination potency.

Students practice NBC reconnaissance using the Fuchs trainer. Photo 9 shows the Fuchs mock-up, the classroom, and the instructor's console. The three large monitors allow the observers to clearly see the mass spectrometer screen, the dual wheel sampler system (photo 10), and the radiation monitoring device readout. There's a vehicle orientation system map display for every two observers.

The dual wheel sampler system provides an opportunity to train on continuous monitoring using the dual samplers with a revolving stainless steel drum. The drum can be "contaminated" with up to four different simulants, and also has a hot air blower to remove any simulants once the "contaminated area" has been crossed. The rotating turntable, with four different terrain segments, is used to perform point monitoring using the sampler probe head. Physical samples can also be taken with the sampler tongs. Radiation surveys can be performed using the instructor's computer and a device that connects to the on-board radiation survey meter. Up to five hot spots and several overlapping fallout patterns can be programmed into the radiation survey. All of the information gathered by the recon crew can be given to an NBC evaluation center to turn into NBC 5 messages and plots. These results can then be compared with the original data, checking the accuracy and skills of the NBC warning and reporting system.

This short photo story provides a brief glimpse of the training support tools found at the German NBC Defense and Self-Protection School.



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Some are high-tech, others are very simple. In all cases, they're effective tools that support the training of NBC defense personnel in the German armed forces.

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