

The M81

—remote activation of detector unit

The M81, Simulator, Detector Unit, Chemical Agent Automatic Alarm, has recently been fielded by the Army to the Training Aids Support Centers (TASCs) and is available for units to train with. The M81 activates the M8A1 Chemical Agent Automatic Alarm's M43A1 detector unit. It comes with a hand-held activation transmitter and four receiver units. The receivers mount in the M43A1 detectors and will turn on the alarm horn from the signal of the transmitter.

Unit NBC NCOs will welcome this device to the training arena, since they can use the M81 to train in the operation of the M8A1 alarm and to train unit personnel to react to the chemical attack signal. The simplistic nature of the device is a benefit, also. The M81 uses the actual equipment (M43A1) and, once mounted in the alarm, allows the alarm to be employed in accordance with the unit SOP. The training NCO or an evaluator activates any one of four alarm units with the transmitter



The M81, shown here mounted on the detector unit, right, and the device itself, left.



The kit components: one transmitter (front), four receivers (one mounted in the M43A1 detector). Note the thin whip antenna.

from a distance of up to 1,000 meters. No longer must they manipulate the alarms of each detector unit to sound.

In setting up a training plan, remember the M81 is employed to enhance the realism of chemical attacks during force-on-force engagements. The operations order specifies the level of MOPP for soldiers and gives the threat's potential for employing chemical agents. Units now can train to respond to chemical agent attacks with the M81. Soldiers take the appropriate defense measures and continue the mission.

When used in conjunction with other training devices for NBC events, the M81 adds to the training by supplying the audible cue of the M8A1 alarm.

The use of a chemical agent simulant, like PEG-200, gives the

illusion of the agent, but does not activate the alarm. If a unit moves into a contaminated area and has no other clues that the simulated agents are present, then the M81 is activated to alert the soldiers to take defensive measures. Following the unit's SOP, soldiers begin operating in the NBC environment.

In training, the M81 does not interfere with the actual procedures for start-up, operation, detection, maintenance, or shutdown of the M43A1 detector unit. The operator's only additional task is to attach the receiver unit onto the M43A1. The detector supplies the power for the receiver. The visible cues that the M81 is attached are two additional inches in height of the detector and the antenna extending up along one side.

The NCO conducting training directs personnel operating the

alarms to perform the necessary steps to place the unit into operation. By selecting one of four alarms to activate, the NCO forces the operator to perform the steps to maintain the detector in a chemical agent area. In sequence, the other three alarms are activated. Once operators become proficient in maintaining the alarms, they are more confident in emplacing the detector units during field exercises, and less liable to leave them in the NBC room.

The M8A1 as a detector system is invaluable for warning a unit of chemical agents on the battlefield. However, in training, it does nothing to enhance the environment. With the fielding of the M81 training set, the M8A1 becomes another method of simulating the NBC effects. Soldiers listen for the alarm and take appropriate defensive measures. The M81 is a tool in training, use it. 