

The Chemical Agent Monitor

—tips to help trainers

By SSG Michael D. Bloxom

The Chemical Agent Monitor, or CAM is the latest chemical detection equipment to help our armed forces perform operations in a chemical environment. The hand held 3.7 pound monitor detects low-level vapor hazards of nerve and blister chemical agent vapors.

The CAM supplements currently fielded chemical detection and identification equipment. This equipment includes the M256A1 chemical agent detector kit, the M8A1 automatic chemical agent alarm, and M8/M9 detection paper.

The CAM plays a major role during suspected and/or actual chemical operations. To correctly employ the CAM, and integrate its potential into specific missions, the operator must have a thorough understanding of specific data. That data includes a doctrinal understanding of contamination avoidance, protection, and decontamination theory and procedures. Other subjects include characteristics of chemical agents and weather, and the unit's mission and specific operating environment.

Critical areas of understanding for CAM operators:

- FM 3-3, *Contamination Avoidance*
- FM 3-4, *Protection*
- FM 3-5, *Decontamination*

- FM 3-6, *Effects of Weather on Chemical Agents*

- TC 3-4-1, *CAM Employment*

Good training is the key to successful CAM operations. Training must be developed and include the critical

areas of CAM operations. TC 3-4-1, *CAM Employment*, will assist trainers and operators on employment procedures and development of unit SOPs.

A CAM user's guide was published in Feb 91 to help CAM operators



Soldier using CAM.

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remember minute details of operation, troubleshooting, and decontamination procedures. Because of the CAM's complex nature, many soldiers have trouble remembering specific procedures, thus a degradation of confidence in the equipment. The CAM User's Guide eliminated the frustration and confidence increased. The guide is a weather impervious set of instruction cards that can be attached to the CAM. This set of "on board" instructions is available by writing to the author of this article. A good blend of common sense, desire to perform realistic, hands on training, and a working knowledge of the "critical areas" is required to conduct excellent and meaningful CAM training. To help trainers conduct meaningful training, the following solutions have been tried and tested.

To demonstrate vapor travel and simulated CAM readings, the following materials are required:

- One antifreeze tester or battery water applicator
- One six-inch length of 3/8-inch diameter rubber hose
- One tube stannic chloride
- One tube mentholated heat rub

The antifreeze tester provides a specific air source. The rubber hose connects to one end of the antifreeze tester. The other end holds a tube of the stannic chloride. Both ends of the

tube are broken to allow air to be passed through it. The moisture from the air reacts with the acidic base compound of the stannic chloride to create a "cold smoke." The smoke is used to demonstrate vapor travel and how the slightest wind current (air ventilation ducts) can affect vapor travel in closed spaces. *Exercise extreme caution with the smoke generated from the stannic chloride as it affects the respiratory system.*

The mentholated heat rub acts as an excellent simulant for blister agent "H" mode operations for the CAM. An excellent training technique is to saturate a towel with a couple tubes of the mentholated heat rub and place it downwind. This allows excellent CAM training under any scenario. Training developments require sweat and hard work. Research the "critical areas" and develop scenarios to provide excellent training to the CAM operators. The CAM is not a perfect sampler. But it's better than nothing—so use it. It is a reliable chemical vapor detector that must be used with other available detectors. Proper maintenance and care ensures a ready CAM. Topics and procedures mentioned in this article were used to train over 800 joint service personnel deployed to Saudi Arabia. The success of this mission was absolute. Most of the service members were enthusiastic about the equipment and

learned how to employ it within their units' capabilities and mission.

Upon mission completion, the author developed and published a database of information on the CAM—a series of information papers focusing on training procedures, technical manual changes, critical operator procedures, an update to STP 21-1 SMCT, the new training battery pack (TBP), and a field expedient CAM user's guide. Trainers, training developers, and operators of the CAM use this information to greatly increase the effectiveness of CAM operations and unit readiness. It's your move. For more information and a copy of the CAM user's guide, write the author at: Company A, 84th Chemical Battalion, Fort McClellan, Alabama 36205-5020.

SSG Bloxom is currently assigned to Company A, 84th Chemical Battalion, Fort McClellan, Alabama, as a platoon trainer for the chemical officer basic course. Other assignments at the Chemical School have been OSUT course manager, Department of Basic Chemical Training; and instructor, Department of Basic Chemical Training, Chem-Bio Senior Branch, Directorate of Training. He has been assigned as a battalion staff chemical NCO with the 3d Battalion, 7th Infantry; 197th Infantry Brigade, 560th Engineer Battalion, Georgia Army National Guard; 3d Battalion, 502th Infantry; 101st Air Assault Division; and 5th Battalion, 3rd Field Artillery, 42d Field Artillery Brigade in Giessen, West Germany. He is a graduate of the chemical advanced NCO course and is currently enrolled in the Emergency Management Institute Home Study Course and the Radiological Safety Correspondence Course. He leaves for an assignment in Korea in Apr 92.