

Training Gets a Boost From New Technology

By Mr. Daniel Mack



Lab training in BIDS processes.

The soldiers work quickly and cautiously. The task: To detect biological agents in the atmosphere using the Army's new Biological Integrated Detection System (BIDS). The accuracy of the information gathered and transmitted will be crucial to the mission as well as to the health and well-being of troops in the area. First, the soldier uses an ultraviolet aerodynamic particle sizer (UVAPS) to check for particles in the air. Then, he uses a biodetector device (BD) to identify the sample. Although the process takes place in the middle of a potential battlefield, each step is precise and accurate.

The above scenario is repeated often as soldiers train to detect biological warfare agents. Training soldiers to operate complex equipment such as the BIDS has historically been costly and time-consuming. First, it is difficult for instructors to monitor the trainees' progress. Second, using real equipment for training is very expensive; and third, even though real biological agents are not used, the simulants used in training still require the filing of environmental impact statements.

The obvious answer to this challenge is to develop a mockup training system that can train soldiers on the equipment in realistic scenarios, inexpensively, effectively, and free from environmental concerns. ITT© Industries (formerly KAMAN© Science Corporation) has developed advanced computer simulation technology for training the New P3I BIDS that meets these requirements.



A BIDS in the field with camouflage in place.

ITT©, under contract with the US Army program director for biological defense, will build a mockup training system at Fort Leonard Wood, Missouri. The soldiers will be able to operate the BIDS during an integrated, end-to-end biological scenario using computer simulations that are integrated with actual BIDS equipment. As the soldiers learn to test for the presence of biological agents in real-time, the instructors will evaluate their efforts. This will provide state-of-the-art training for chemical soldiers.