

The Cane Implementation Program

— Improving our chemical warfighting capability

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A decision to employ American military forces almost anywhere in the world cannot be made today without cognizance of the fact that they could be subject to chemical attack.—*GEN(Ret) Frederick J. Kroesen*

The spread of chemical warfare capabilities among more and more nations and the inherent difficulties in achieving a verifiable and enforceable treaty banning such weapons, reinforce the above quotation by a former commander of U.S. Army Europe. Add to that the volatility of the Middle East, our strategic interests in that area, and the use of chemicals to great

effect by Iraq in their recent war with Iran, and you have a situation that is of great concern to our political and military leadership. The high level support for the continuing series of force-on-force field tests known as CANE—Combined Arms in a Nuclear/ Chemical Environment demonstrates this concern.

So far the CANE program has looked at the effects of a nuclear/chemical environment on the mission performance of the mechanized infantry squad and platoon (CANE I), the tank heavy company team (CANE IIA), and the tank heavy battalion task force with supporting combat support and combat service support elements (CANE IIB). Results of these three field tests have been published and distributed Armywide in three Summary Evaluation Reports with supporting Lessons Learned video tapes. Future planned tests will evaluate light infantry, aviation, and air defense issues.

Results of the CANE program are important, but we must concern ourselves with the more important part of the program: doing something about the problems identified in the tests. The CANE Implementation Program does this. This program has the potential for making some of the most dramatic improvements in our Army's ability to operate effectively on a

chemical battlefield since the advent of chemical warfare.

The Commander of TRADOC approved the CANE Implementation Program in March 1989. Details can be found in TRADOC Regulation 71-18. In essence, the program makes the Commandant of the Chemical School the focal point for the CANE Implementation Program and charges him to schedule work sessions with the proponent schools and agencies to develop solutions to identified NBC defense problems. The key to the solution and correction of these problems lies in the fact that the proponent, whose mission area is affected, is the main player and the one responsible for making the correction. The Chemical School maintains the status of the actions for the TRADOC Commander.

The CANE Implementation Program process can be best explained through the schematic at Figure 1 (page 3).

The Identification Phase

CANE test data are analyzed in a very systematic and comprehensive manner by a team of statistical, operational, subject matter, and test experts. As an example, the issue area for close combat, heavy, includes field grade officer representatives from the Armor and Infantry Schools to give added validity and credibility to the data analysis.

These experts analyze each variable (primarily an ARTEP task) in



Soldiers re-arm the M1 tank.

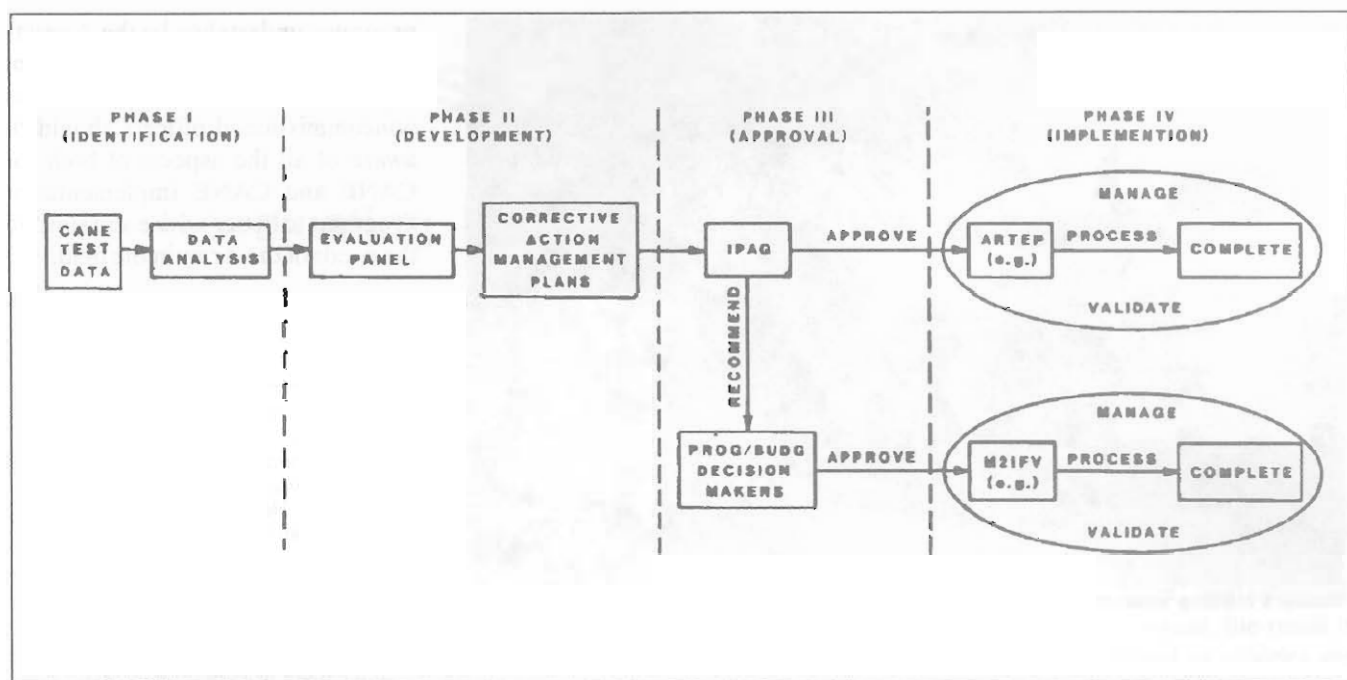


Figure 1. The CANE implementation program process.

each issue area (for example, close combat, heavy), considering the statistical significance of the test data and applying military operational judgment to those data. In this way, agreement is reached that for each data point either there was a difference in task performance caused by the chemical environment, or there was no difference, or the result was inconclusive. A finding of "no difference" in task performance is as important as a finding of a "difference" in that it allows us to focus on specific areas. For example, specific training tasks can now be intelligently targeted as opposed to the across-the-board, "do more NBC training" philosophy of the past.

Following the initial review of each variable, the data analysis team then has the analyst re-run selected groupings of variables. While an individual variable by itself may be inconclusive or not significant, when it is aggregated with like or related tasks, the aggregation may show a significant difference.

The major output of the data analysis team is an identification of the

deficiencies in each issue area and a rationale for why the deficiency occurred. This is why it is so critical to combine the statistical, operational, and subject matter experts as a "no holds barred" team.

The Development Phase

A panel evaluation is the next step in the process. The primary purpose of the panel is to develop solutions to the identified deficiencies. This panel is chaired by the Chemical School and has representatives from the proponent schools and the TRADOC Integrating Centers. They have the results of the data analysis teams to consider, and access to the primary analytical and operational team members. The outputs of this evaluation panel are Corrective Action Management Plans, and the designation of implementation managers at both the proponent school and the Chemical School.

A Corrective Action Management Plan is a relatively short document that covers a recommended corrective action. It consists of a fact sheet on the deficiency, a schedule to make the

correction, and the resources in time, manpower, and dollars required to make the correction. This is another of the key elements of the CANE Implementation Program. The results of most field tests wind up in a study report that has conclusions and recommendations, but the implementation is highly dependent upon some individual or agency translating the recommendations to actions and finding the resources to do the job. The CANE Implementation Program process causes the resources to be identified at the outset and for responsible decision makers to make conscious, informed and documented decisions to support, defer, or not support a corrective action.

The Approval Phase

The Implementation Program Advisory Group is the approval authority for the Corrective Action Management Plans. The Assistant Commandant of the Chemical School chairs this group of colonel or civilian equivalent-level members from the Integrating Centers, appropriate proponent schools, and the Chemical



Soldiers loading ammunition into a field artillery ammunition support vehicle.

School departments.

The Implementation Program Advisory Group has the authority to approve corrective actions within their resource capabilities (for example, changes to an ARTEP/MTP) and to recommend corrective actions to the program-budget decision-makers for corrective actions requiring additional TRADOC or Department of the Army resources (for example, materiel changes to the Bradley).

The Implementation Phase

Approved Corrective Action Management Plans are then actively managed through completion of the corrective action by the proponent. The status of the action is tracked by the CANE Implementation Program manager at the Chemical School.

The TRADOC Commander will conduct an annual program review with the Integrating Center Commanders and school Commandants. The proponents will report out the status of their specific corrective actions at this meeting.

Program Status

As of this writing, six evaluation panels have been conducted. The Implementation Program Advisory Group has met three times and approved over 75 corrective actions for deficiencies in these issue areas. An evaluation panel and Implementation Program Advisory Group have been scheduled to consider the remaining engineer and air defense issue areas.

The ultimate goal of the CANE Implementation Program is for it to become the screening process for all NBC data from all sources. These screened and approved data will then become the operational NBC data base for the U.S. Army. In this way all potential NBC corrective actions that could affect U.S. Army doctrine, training, force structure, materiel requirements, and leader development programs will be systematically and comprehensively analyzed and evaluated. Changes will be reviewed by competent, experienced teams and panels, and validated by the senior leadership of the Army.

The CANE Implementation Program is one of the most far-reaching

programs undertaken by the Army to improve its chemical warfighting capabilities. Chemical officers and noncommissioned officers should be aware of all the aspects of both the CANE and CANE Implementation Programs to better advise and support the needs of the Army in the field.

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Mr. Jack Mojecki and Mr. Walt Phillips are employees of the Atlantic Research Corporation Professional Services Group, which has a support contract with USACMLS for the CANE program. Both are retired Chemical Corps colonels, each with 30 years of military service and numerous military awards.