

The other important sources of intelligence for a battalion commander are his scout platoon and his FSO. The scout platoon is especially important in an armor battalion where there are no attached infantry units. The platoon is responsible for locating the enemy and for forwarding reports, and it is the only unit in the battalion whose primary function is to gather information.

The battalion FSO is always available to the battalion staff, and he can provide a wealth of information to the S2. Although a company commander may forget to send a spot

report, he will invariably call for fire when he sees the enemy.

The FSO will become even more important as TACFIRE gets to the units. With TACFIRE, the S2 can step into the FSO's M577 and get an accurate printout showing the locations and types of targets that have been fired upon. Such information is invaluable because it shows trends in enemy movement and may fill the gaps in skimpy spot reports.

If the individual soldiers in the front lines are trained to use their eyes and ears properly and to send accurate, complete, and timely spot

reports, this vital information will be available to those who need it.

A commander is not likely to lose a battle because of too much information, but he may lose it because of too little.

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CAMMS

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The Computer Assisted Map Maneuver Simulation (CAMMS) system has proved to be one of the best methods of training battalion and brigade staffs in the Army, especially those in the Reserve Components.

The Army has used map maneuvers in training for some time, but before the advent of computers the work had to be done manually, which took a lot of people and a lot of time. Controllers and reactors were needed to feed canned messages to the unit that was playing; then they had to wait around while the unit went through its staff actions, planned some course of action, and issued its orders. The reactors who represented subordinate units would then respond, usually from a playbook. In some of the high level and more sophisticated map maneuvers, more people had to be employed to derive relative combat

power figures and to roll dice to determine a random number and the outcome of the battle. Often some of these people were eliminated to save money, and then realism was lost.

The introduction of the computer, with its ability to perform complex mathematical operations at high speeds and to store and retrieve data, has reduced the number of people and the amount of time needed to conduct a map maneuver and, at the same time, has increased realism. Usually, a main computer is tied into the training area by telephone lines and remote terminals. The computer has several programs, including some that do mathematical calculations and others that simply update a data base.

The CAMMS system is most effective when used in a multi-battalion exercise. Such an exercise requires a

large room to serve as a control and main battle area, separate rooms for each group of company commanders, and a room for each battalion staff.

In the main control area a large scale map is set up, and unit markers are placed on it to represent enemy and friendly forces. These markers all have a computer code that identifies the type of unit, its organization, and its equipment. These units are moved by table controllers who also serve as platoon leaders. Connected with their company commanders by telephone lines, they report the condition on the map board. The company commanders, in turn, are linked to their battalions by radio, while the battalions are linked to their brigade headquarters, which is usually controlling the exercise, by telephone. The brigade headquarters is best situated next to the map so that the



Given the computer hook-up, CAMMS can be played on any large-scale map.

staff can compare what is actually happening on the ground with what is being reported. In this way the brigade can determine problem areas in its subordinate units.

Once the system has been set up and the player personnel are in position, the map maneuver begins. It is usually determined in advance whether the battalions will be attacking or defending. A brigade level order is issued and the battalion staffs perform their functions.

As the staffs and commanders complete their estimates and issue orders, subordinate units move their unit markers on the control boards. Enemy units also begin their movement in accordance with published OPFOR doctrine. As the leading elements close with each other, the table controllers decide when they are in range of each other and begin the conflict by entering the unit computer codes and other pertinent factors, including terrain and weather, into the computer. The computer program moves the information through a series of mathematical equations and determines the outcome of the conflict. Casualties are assessed and situation reports are generated and given back to the table controllers. In

addition to giving spot reports to player units, the computer can call up an administration and logistics data base for both sides and subtract losses from that base. Unless the unit S1s and S4s take action to replace the losses, their units will very quickly run out of ammunition, fuel, people, and equipment.

Realism is most apparent at the battalion level where most of the work done by the staff is based either on reports from the field or on orders from above. But the computer does not make any decisions for the commander, nor does it do the work of the staff officer. It simply eliminates the requirement for a large number of people who might be considered little more than clerks and mathematicians.

The major disadvantage of the manual map maneuver lay in the fact that when the writing staff got tired and stopped writing messages the exercise usually came to an abrupt end. Besides, there was no way that a writing staff could accurately forecast a unit's reaction to any given event.

With CAMMS, these problems have been solved, because the exercise is self-sustaining. Once the units are given the initial order, it is up to them

to plan and to move. As friendly and enemy units come in contact and fight, the computer generates the messages, the staffs respond, and the situation can be influenced in many ways. These variations make the exercise more flexible since there is no pre-approved solution, only what is actually happening on the board.

The main benefit CAMMS offers to Reserve Component units is an opportunity for their commanders and staff officers to conduct realistic combat operations within the confines of their armories, to see the results of their planning, and to work closely together. It has also increased the units' awareness of the capabilities and limitations of Soviet weapons and equipment as well as their own.



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