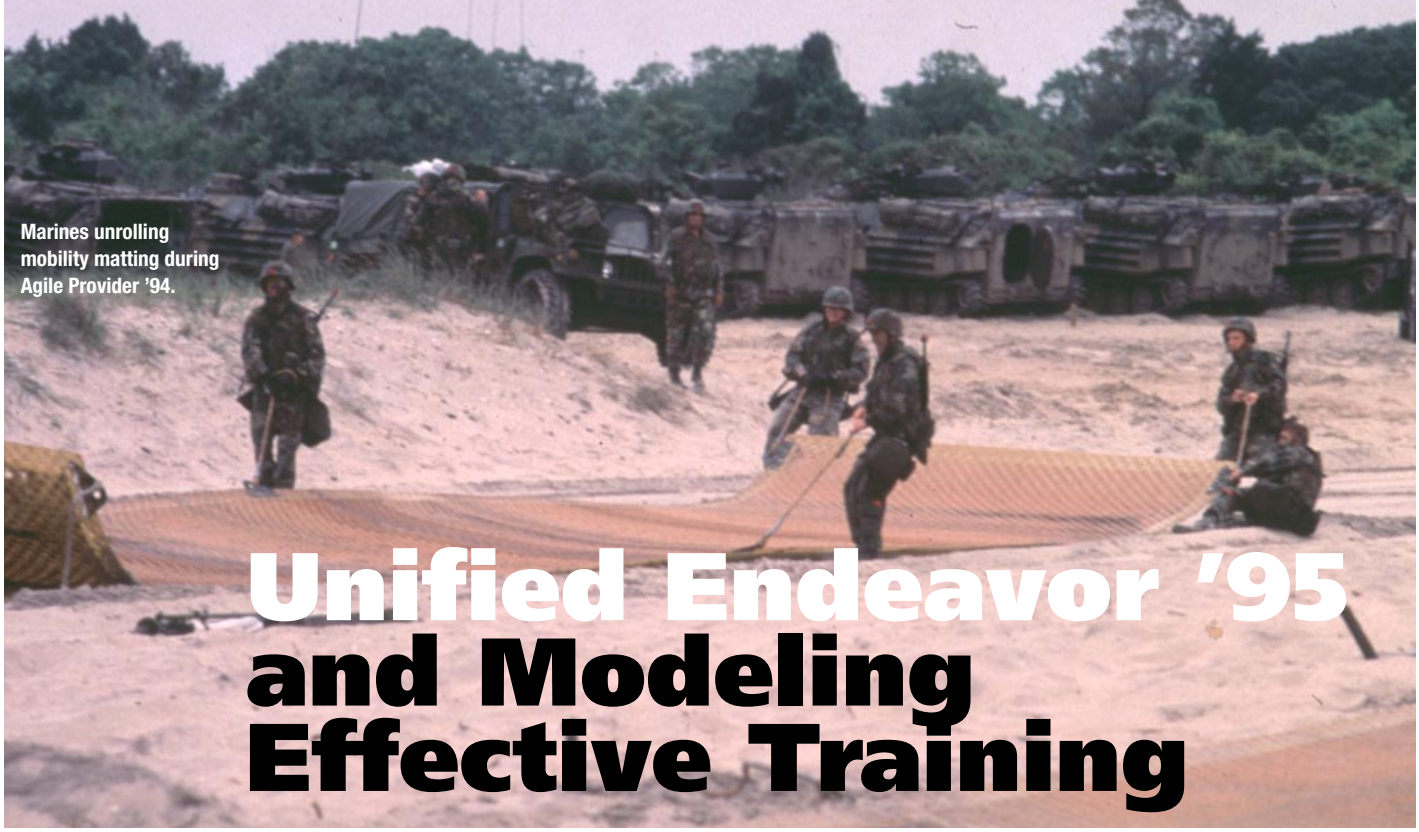

Marines unrolling mobility matting during Agile Provider '94.

U.S. Navy (John Luckenbaugh)

Unified Endeavor '95 and Modeling Effective Training

By RALPH W. PASSARELLI *and* FRANK E. SCHWAMB

Under the unified command plan, U.S. Atlantic Command (ACOM) is responsible for the joint training of assigned forces in the continental United States. Accordingly, it conducts training to prepare joint task force (JTF) commanders and staffs for joint operations. Unified Endeavor '95 (UE '95) was the first in a series of training exercises held in this program. ACOM viewed it as an opportunity to learn what works for JTF staff training and what needs improvement. This article describes the training program and the results of an evaluation of UE '95 by the authors.

Figure 1: ACOM JTF Commander and Staff Training

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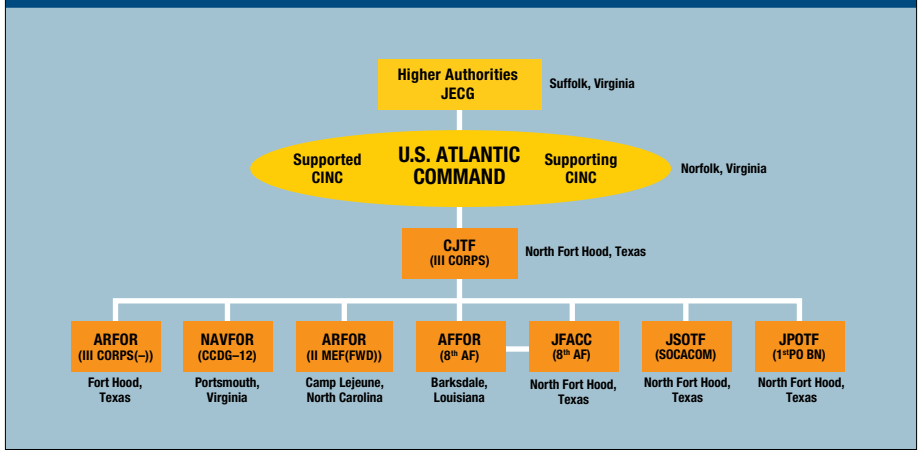
Program Summary

JTF training is conducted in three phases (see figure 1). The first consists of five days of seminars held in three parts. Phase IA consists of three days dealing with the roles and organization of JTF headquarters, staff procedures, joint doctrine, and joint tactics, techniques, and procedures (JTTP). Phases IB and IC focus on joint planning and operational procedures, respectively. They are designed to help the staff prepare for phases II and III. Phase II is six days of joint planning that lead to development of an operations order (OPORD). During phase III both commander and staff execute the OPORD in a six-day simulation-driven exercise.

Phase IA is led by joint subject matter experts drawn from ACOM directorates. Phases II and III require more support. For these, ACOM stands up a joint task force training team (JTT) and joint exercise control group (JECG). When ACOM plays the role of the supported command, a CINC crisis action team (CAT), an operations planning group (OPG), and an ACOM deployable joint task force augmentation cell (DJTFAC) also are activated. JTT (with some 40 subject matter experts) and a senior mentor (retired flag/general officer) offer interactive instruction and feedback to exercise participants throughout both phases. A joint exercise control group (150 people) guides the entire process and ensures that the training remains focused on its objectives. CAT and OPG support CINC play. DJTFAC (14 individuals) augments a JTF commander's staff.

Figure 2: Command Structure and Locations, UE '95



To reduce costs, distributed interactive simulation (DIS) technology is utilized to produce a realistic environment for tactical activity in phase III. Realism is enhanced by actual command, control, communications, computer, and intelligence (C^4I) systems, a thinking opposition force, and role playing to simulate the Joint Staff, Department of State, and governmental agencies. The costs of moving actual units are avoided by computers which simulate movement and interaction. Moreover, separating staff training and unit/platform joint field training makes both more efficient. Joint staff training is freed of field exercise restrictions (such as safety and range requirements). Units/platforms can schedule joint field training without staff training being driven by the scenario. Simulation-supported joint staff training has replaced joint field exercise staff training (the Ocean Venture and Agile Provider series) at ACOM because it provides better JTF headquarters training at less cost.

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To structure and further enhance JTF staff training, ACOM is developing a Joint Training Analysis and Simulation Center (JTASC) with facilities, systems infrastructure, communications, simulations, technical support, analytical support, and control mechanisms for joint training as well as operational rehearsals.

ACOM is also developing a JTF headquarters mission training publication (MTP) that will serve as a descriptive, performance-oriented guide for commanders, staff sections, and personnel. A headquarters standing operating procedures (SOP) document is also being developed. It offers general guidance on responsibilities, organization, and practices for JTF headquarters sections and personnel.

JTASC, MTP, and SOP play important roles since there are no standing JTF headquarters organizations. Headquarters must be formed each time. The complex process of quickly standing up a JTF headquarters with as many as 1,000 men and women, of whom more than 60 percent could be augmentees, requires that we jointly train sufficient personnel and have written guidance.

Unified Endeavor '95

UE '95 was conducted in three phases spread over four months: IA, academic training seminars (January 9–11); IB/II, operations order development exercise (February 5–11); and IC/III, operations order execution exercise (April 18–24).

The scenario was cast in Southwest Asia and required the JTF commander to plan defense of an allied nation against an aggressive neighbor and, if necessary, to repel an invasion. U.S. Central Command (CENTCOM) was the supported command played by ACOM and a CENTCOM liaison cell. Commander III Corps commanded the exercise JTF.

During phase I, the JTF headquarters and component staff principals assembled at Fort Hood, Texas, for three days of academic training seminars led by ACOM subject matter experts.

Phase II was preceded by a day of academic training (phase IB) focused on joint planning and organization. This instruction helped the JTF planners prepare for six days of joint planning (phase II), which led to the UE '95 operations order.

Phase III was preceded by a day of academic training (phase IC) intended to help the 800 JTF staff members prepare for the execution phase. The JTF command structure and locations for phase III are shown in figure 2. During phase III, a JTF commander and his headquarters operated from North Fort Hood. The commander felt that conditions there more nearly replicated those a JTF might expect if deployed in a mounting crisis. The joint force air component commander (JFACC), joint special operations task force (JSOTF), and joint psychological operations task force (JPOTF) also operated from North Fort Hood, while the service component commanders operated from home stations.

At the end of UE '95 participants anonymously filled out questionnaires. ACOM used the responses to identify areas where the training concept or its implementation needs improvement. Of two hundred forms submitted, 84 percent felt that UE '95 provided both useful and effective JTF headquarters training for their position. The instruction was generally perceived as effective throughout the entire staff. However, this was the

Figure 3: UE '95 Compared with a Model for Effective Training

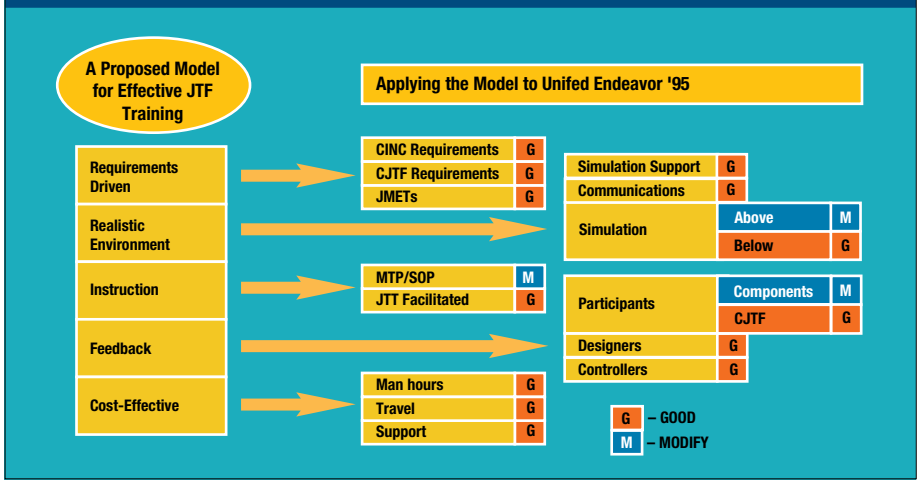
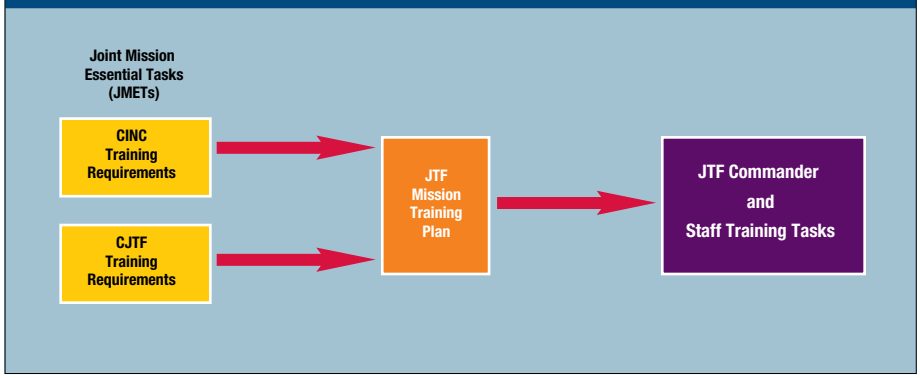


Figure 4: Translating Training Requirements into Tasks



first time many participants were exposed to joint training so they had little to compare it with.

Participants were asked to contrast UE '95 training with joint field exercise training if they had previously been in a field exercise at JTF headquarters level. Of the 40 who responded, 82 percent felt that UE '95 provided more effective JTF headquarters training than field exercises.

A Model

Effective training must be focused on specific requirements, occur in a realistic atmosphere, be supported with instruction and feedback, and be cost-effective. Using the model shown in figure 3, a comparison of the elements of UE '95 suggests five points.

in a perfect exercise participants are unaware of simulation support

First, the training process should be requirements driven. The theater training concerns of a CINC and the need to assess the soundness of war plans and crisis response capabilities normally drive training requirements. The needs of a JTF commander must also be part of this process. He normally focuses on training requirements that ensure JTF and component headquarters staffs can respond to various missions. Therefore, his requirements can usually be stated in terms of the ability of a JTF staff to perform the required joint planning and operational processes independent of a scenario. It is frequently possible to express the training requirements of both a CINC and JTF commander in terms of joint mission essential tasks (JMETs), and that was precisely the process used in UE '95. Figure 4 displays the connection between the requirements of a CINC and JTF commander and the UE '95 staff training tasks. Linking training in this manner ensures that it is focused on requirements articulated by a CINC and JTF commander and helps avoid repeating unnecessary training.

Second, training should be conducted in a realistic, supportive environment. The questions that follow are of interest in evaluating a simulations-driven training environment. How close are we to reproducing stimuli that a JTF can expect in actual operations? Is the headquarters dealing with issues one would expect in actual operations? Are participants getting appropriate stimulation from above and below? Do they receive realistic inputs in the expected amounts from organic C^4I systems? Are these inputs believable in terms of timeliness, responsiveness, accuracy, relevance, and sufficiency? Finally, are trainees being led logically through the training tasks?

For UE '95, we gathered data on the realism of the simulation support, communications, and stimulation from above and below JTF command level. In UE '95, simulations-driven tactical movement and engagement support was provided by a confederation of service simulations using distributed interactive simulation (DIS) technology. The simulations remained on-line throughout phase III—an outstanding performance for a developmental exercise.

In a perfect exercise participants are unaware of simulation support and remain focused on the training. However, 55 percent of UE '95 participants found that simulation was particularly noticeable or intrusive at their position. We will never get to the point where everyone agrees on

Main compound for UE '95 at North Fort Hood.

the model results. However, when over half of the participants find the simulation intrusive, the visibility of the models needs to be reduced. It should decrease as ACOM gains experience with exercise design and control and JTASC stands up.

For the most part participants used their command and control systems. Employing them during the execution phase adds to realism and improves training. This practice should be considered essential to good simulations-supported training.

Appropriate levels of stimulation for a JTF staff from both above and below is another consideration. Stimulation from below is easier to achieve because simulations interact primarily at component level (from under). This plus strong component play provided significant stimulation from below JTF headquarters command level during UE '95.

Stimulation from above JTF level is more difficult. Current models do not do it. It only can be done by a CINC and his staff or credible role players. During UE '95, the on-scene role players (such as the ambassador) were quite effective. When surveyed, the JTF was very satisfied with the amount of interaction between the JTF and CINC staff. But JTF headquarters spent more time dealing with tactical issues from below than strategic and operational issues from above. This would not be expected in real operations. ACOM exercise designers are working to provide more stimulation from over the JTF level.

One should not lose sight of the proper role for simulations and scenarios. Joint staffs train to processes (or tasks), not to particular scenarios. What matters is that the staff can coordinate air assets in support of the assigned mission, not simulation results used to drive training. Realistic scenarios and simulation results allow JTF staffs to execute such processes (tasks) while reacting to appropriate stimuli. Thus, improving simulation fidelity by 10 percent will have little effect on joint training.

Third, training should include formal and facilitated instruction. ACOM JTT provided the formal and facilitated instruction. It was the strength of UE '95 training and achieved the highest recognition of any training element. Phase IA seminars were so effective that JTF staff principals recommended that future phase IAs include more members of the JTF staff and additional topics. At the end of phase III, 80 percent of participants felt that JTT feedback had improved their training and performance.

USS Nassau.

U.S. Navy (Johnny R. Wilson)

During UE '95, we discovered that phases IB and IC (academic training) were particularly effective yet hard to accomplish. On arriving at the exercise site for phases II and III, participants were anxious to begin planning and organizing for operations. There was pressure to compress IB and IC. However, by the end of phases II and III participants expressed a growing appreciation for IB and IC. At the end of phase II, 76 percent of the participants indicated more time should have been devoted to phase IB, which lasted only six hours.

support costs can be controlled by matching simulation fidelity to JTF training processes

Fourth, the training should include substantive feedback to both participants and designers. JTT provided the participant feedback in UE '95. It included four formal after action reviews for the staff principals, interactive individual feedback by JTT members during the exercise, and a mini-after action review between the JTT members and their respective staff sections at the end of each phase. Headquarters was surveyed and found to be quite satisfied with the feedback process.

Reaction for designers was also substantial. It included an after action review with the JTF principals and CINC, a survey of the entire JTF staff for ways to improve training, written self-evaluations by each ACOM directorate, and assessments by both JECG and JTT. This feedback concentrated on design and control.

However, JTF components were not included in the reaction process to a degree that made them full participants in the training. During UE '95, JTT focused on the JTF headquarters staff. The components viewed the JTF after action reviews via video teleconference. At the end of UE '95, the components recommended that JTT members be stationed at their locations to provide self-directed training and feedback focused at the component level. This suggestion will be pursued.

Fifth, the training must be cost-effective. If training is too costly in dollars or man-hours, it may not be performed often enough by ACOM to maintain proficiency. In this regard UE '95 is commendable. Its estimated cost was less than a tenth that of Agile Provider '94. Large joint field exercises are clearly not the venue for training JTF staffs; they are too expensive and infrequent.

However, if the UE '95 series of exercises is to remain the most cost-effective joint staff training it must compete with other simulation-based training approaches. While this comparison was not made, UE '95 would likely contrast quite favorably.

Total training expense is comprised of elements that can be examined individually for cost-effectiveness. In particular, simulation-support costs may vary widely but can be controlled by matching simulation fidelity to JTF training processes. For example, if an electronic terrain map with 1-meter accuracy would not normally be available there is no reason to provide it as part of the training. Exercise designers can pursue a cost-effective staff training program by protecting low cost/more effective elements at the expense of some high cost/less effective elements.

ACOM is incorporating the lessons of UE '95 into training for JTF commanders and staffs. Methods for improving JTF stimulation from above are under development, and MTP and SOP are being revised. JTASC will soon achieve full operational capability to improve the ability of ACOM in creating increasingly realistic training environments. **JFQ**