The USACOM Joint Warfighting Center

By Major General Martin R. Berndt and Colonel John A. Clauer

The Goldwater-Nichols Act of 1986 highlighted the importance of joint operations to national security and the critical need for joint training for our armed forces. The joint operations envisioned by drafters of this legislation now are becoming a reality. At the heart of this improved joint capability is the U.S. Atlantic Command (USACOM) Joint Warfighting Center (JWFC)—an organization dedicated to comprehensive and integrated joint training.

As commander of the Joint Warfighting Center, it is my privilege to lead a team of nearly 200 dedicated military and civilian personnel and more than 400 supporting contractors employed in training, modeling and simulation, doctrinal and information distribution, and data-collection duties. How well the center accomplishes these tasks depends on the military community's understanding of the center's mission, knowing what services it offers, and knowing how to request those services. This article describes the Joint Warfighting Center and its capabilities to support joint engineer training.

History

The new USACOM Joint Warfighting Center was established on 1 October 1998, by combining the old JWFC at Fort Monroe, Virginia, with the USACOM J7 and its Joint Training, Analysis and Simulation Center (JTASC) in Suffolk, Virginia. The new organization integrates training and learning to support both CONUS and OCONUS joint forces. The USACOM JWFC retains its central role in conceptualizing, developing, and assessing joint doctrine. It also harnesses modeling and simulation tools and evolving information technology to provide comprehensive training support to commanders in chief (CINCs), Services, agencies, and organizations throughout the joint community. The center's mission is to—

- Support joint and multinational training and exercises for commanders, staffs, and component forces.
- Help the Chairman, Joint Chiefs of Staff (CJCS); CINCs; and Service chiefs prepare for joint and combined operations.
- Assist the CJCS in the conceptualization, development, and assessment of joint doctrine.

Joint Training

Before the USACOM JWFC was formed, the USACOM J7 at JTASC conducted three or four large distributed exercises each year. These exercises had 550-3,000 participants, lasted 17-24 days, and focused primarily on operational warfighting training at the joint task force level. The old JWFC at Fort Monroe supported about 12 deployed "full package" exercises each year that had 150-1,000 participants and lasted 17-24 days. These exercises were conducted primarily in theater for regional CINCs and focused on preparing for likely contingencies.

The new USACOM JWFC supports or conducts 15 "enhanced" major exercises annually. However, the focus is not on how many exercises we churn out but on the effectiveness of that training.

Fuertes Defensas 98-99

A recently completed exercise called *Fuertes Defensas 98-99* demonstrates the combined capabilities of the new JWFC. This multiechelon exercise combined a CINC (U.S. Southern Command) battle staff exercise with a joint task force (XVIII Airborne Corps) event. It incorporated the educational portion of the Army Battle Command Training Program from Fort Leavenworth, Kansas, with an Army Warfighter evaluation of the XVIII Airborne Corps' Army element. Combining various elements of Service and joint community training programs is referred to as "nesting" exercises.

The capstone element of Fuertes Defensas 98-99 was JWFC exercise program support deployed to the CINCSOUTH headquarters in Miami, Florida. Personnel in Miami helped to design, plan, execute, and assess this joint training event, which focused on a scenario from the U.S. Southern Command theater. They helped the CINC select a joint mission essential task list to support training objectives, identified the training audience, assisted with the scenario and exercise planning, provided the joint exercise control group, controlled exercise execution, and facilitated after-action review. In Fuertes Defensas 98-99, this capability was

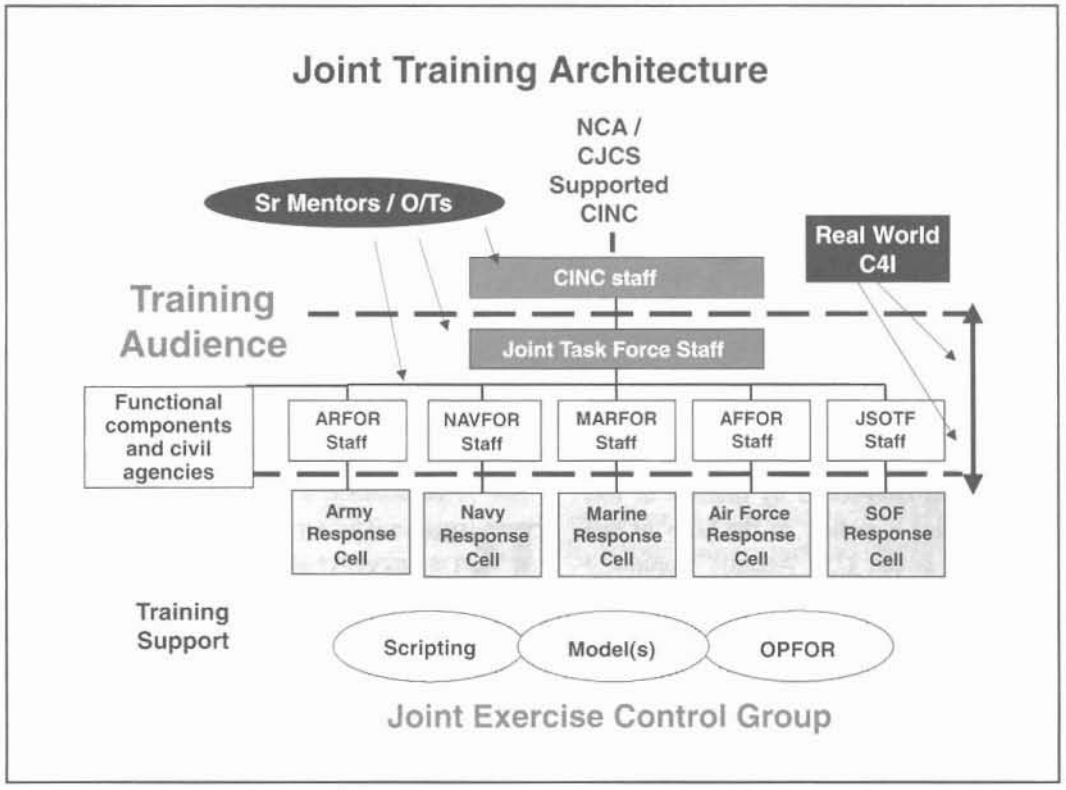


Figure 1

linked, through modeling and simulation, with schoolhouse training provided for the XVIII Airborne Corps at the JTASC. The JTASC used the following four-phase training cycle:

- Academic training
- Planning and development of the operation order
- Execution of the Joint Training Confederation (JTC) computer simulation model
- After-action review

Figure 1 shows generic joint training architecture.

During Fuertes Defensas 98-99, the Suffolk, Virginia, and Miami, Florida, training sites were augmented by elements at component headquarters and other sites across the eastern half of the United States and at Davis Monthan Air Force Base in Tucson, Arizona (Figure 2, page 21). These elements were linked by traditional military C4ISR (command, control, communications, computers, intelligence, surveillance, and reconnaissance) systems. While planning and executing the exercise, commanders and staffs were linked by video teleconferencing as well as liaison officers. The Joint Center for Lessons Learned (JCLL), another element of the JWFC toolbox, helped evaluate the exercise and prepare the after-action report.

Merging capabilities to develop a multiechelon exercise typifies the training we hope to conduct. Merging capabilities will enhance the effectiveness of training and help reduce operational tempo. We will provide improved academic support, improved and streamlined computer simulation models, more effective lessons learned, and emphasize the distribution of systems via deployed exercise support.

The following elements of the new enhanced training program also deserve mentioning:

Worldwide Scheduling

A new JWFC mission is to coordinate, deconflict, and rationalize the scheduling of exercises and training events. One way to improve training efficiency is to "nest" exercises. Another method is to combine similar or duplicated CINC and Service training and exercise programs. The JWFC uses computer-assisted scheduling tools to identify inefficiencies in the scheduling process.

Joint Training System Support

JWFC teams train the CINC staffs on the Joint Training System and help develop documents required by the system, including joint mission essential task lists and training plans. The teams also review and update the universal joint task list, which is the basis for developing the CINC task lists and is a reference used to create training plans. Mobile training teams provide classroom instruction on the Joint Operation Planning and Execution System and joint doctrine required for deliberate or crisis-action planning for major exercises. They also assist with short-notice planning and operations during real-world contingencies.

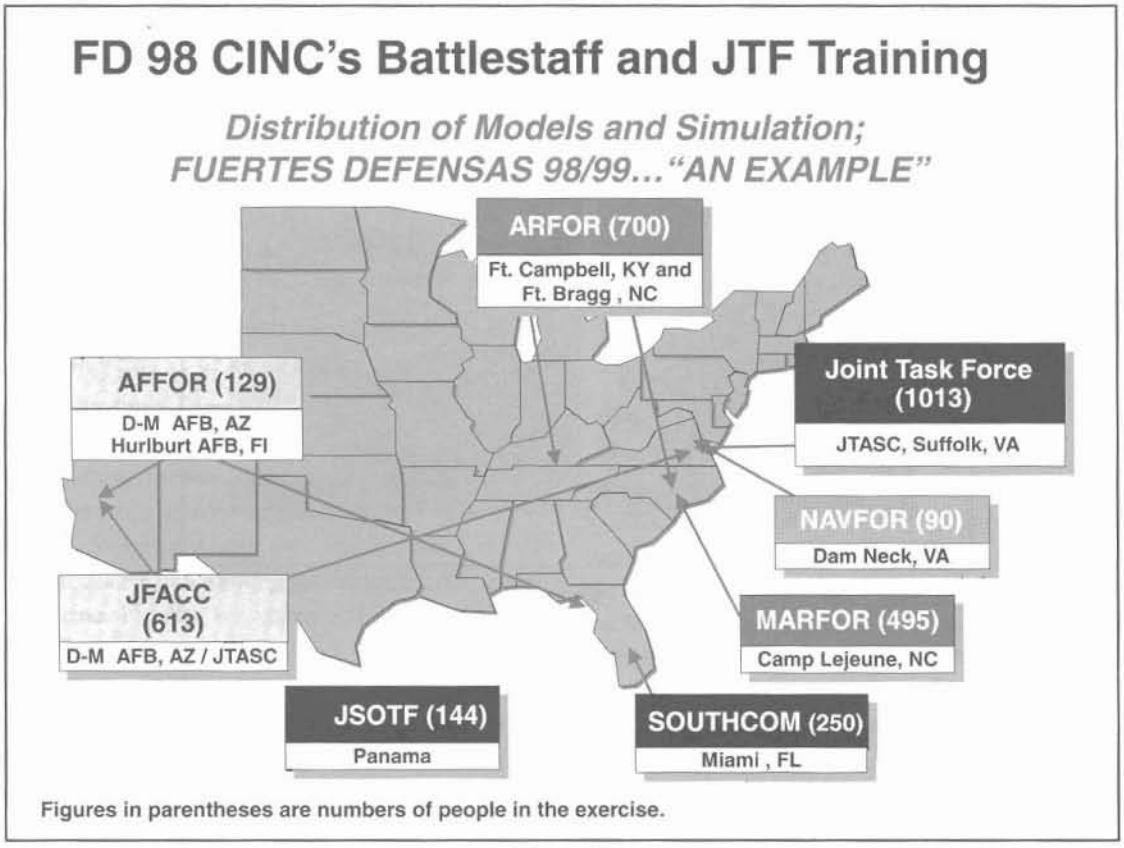


Figure 2

Joint Center for Lessons Learned

The JWFC has refined the JCLL database of more than 8,000 entries to about 1,800 relevant lessons learned. They also provide a database search engine and analyst support. The JCLL works with the Center for Army Lessons Learned Collection and Observation Management System to develop collection tool software, which is scheduled for fielding in FY99. Using JCLL analysts as collection agents significantly improves the after-action products we provide. JCLL is a Secret Internet Protocol Router Network (SIPRNET)-based web tool available to all agencies with registered SIPRNET access. JCLL may be accessed at *jcll.jwfc.acom.smil.mil.*

Joint Distributed Learning Center

This web-based tool is available to Unclassified-but-Sensitive Internet Protocol Router Network (NIPRNET) military address users. It contains programs taught at the JWFC, links to related doctrinal and reference material, the Joint Task Force Commander's Handbook, and other handbooks on joint topics. It can be accessed from the JWFC home page at *http://www.jtasc.acom.mil.* If denied access, call the JWFC at DSN 668-7266 for a password.

Modeling and Simulation Support

As the military moves into the 21st century, two problems will affect training: personnel tempo and the high cost of manpower- and resource-intensive exercises. Large exercises such as Ocean Venture or Solid Shield have traditionally cost upwards of 800,000 man-days and $40 million. By using innovative modeling and simulation tools, we can provide the same level of training for commanders and other leaders for about 80,000 man-days and $3.5 million—a 90 percent reduction in cost and personnel tempo (Figure 3, page 22). This method of training allows Service forces and unit commanders to focus on tactics, techniques, and procedures rather than function as a training tool for the joint force commander, component commander, and staffs. The key to JWFC's successful training programs is effective use of the following modeling and simulations systems:

Joint Theater-Level Simulation (JTLS)

The JTLS model facilitates training in simulation-supported events at strategic theater and operational levels of war. The simulation is a single model that can display forces in an aggregate format. It is widely used to support multidimensional conventional warfare, military operations other than war, and coalition warfare. Several fully qualified JTLS database builders, technical operators, and instructor/controllers provide training on the simulation and oversee simulation operations.

Joint Training Confederation (JTC)

This model combines several Service models that interact and operate within the Aggregate-Level Simulation Protocol System. It supports CINC and joint task force simulation-

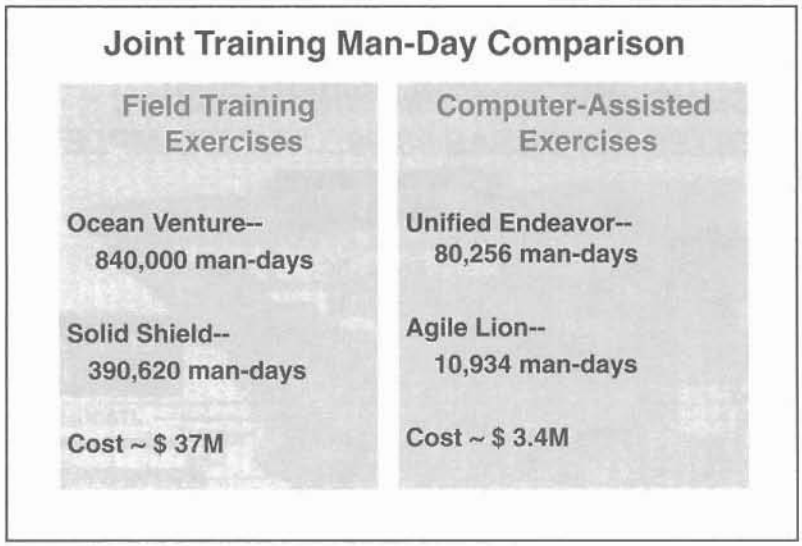


Figure 3

supported training, primarily at operational levels of warfare. While well-planned exercises using the JTC can be effective, they usually require numerous support personnel, role players, and event scriptors, as well as large control groups. However, the JTC displays forces at the smallest unit level and provides simulation support for detailed training objectives by functional and Service components of a joint task force. The JTC is used by the JWFC in CINC and joint task force training from the Joint Training, Analysis and Simulation Center.

Other Modeling and Simulation Programs

The USACOM JWFC also supports the following emerging modeling and simulation programs:

Joint Simulation System (JSIMS). This system eventually will replace the JTLS and JTC. It will support joint and Service training requirements from strategic national through tactical levels, across the full spectrum of warfare operations. JSIMS is a joint, Service, and inter-agency cooperative development effort.

When JSIMS reaches its initial operational capability in April 2001, it will replace the Joint Training Confederation. It will have a strategic theater and operational focus. By full operational capability, anticipated in December 2003, JSIMS will replace all joint legacy simulation models. It will support the full range of universal joint and Service tasks.

Joint Conflict and Tactical Simulation (JCATS). This is a multisided, interactive, high-resolution, entity-level simulation for training, analysis, mission planning, and rehearsals. It displays simulations down to individual combatants in single buildings or combat vehicles. It supports military operations other than war, military operations in urban terrain, special operations, conventional ground combat operations, and mission rehearsals. JCATS, Version 1.1, fielded 30 October 1998 by Lawrence Livermore National Laboratories, has robust joint and urban features that no other simulation possesses. JCATS, Version 1.2, released in December 1998, has even greater resolution and fidelity. JCATS is evolving as the common simulation for joint experimentation applications in Service Battle Laboratories.

Joint Integrated Database Preparation System (JIDPS). This system reduces the time and manpower required to build databases and conduct database tests for simulation-supported exercises.

Joint Doctrine

An essential piece of any training program is the doctrine used for force employment. The CJCS Joint Doctrine Program helps the Services and joint community conceptualize, analyze, develop, disseminate, assess, and revise current and future joint doctrine, tactics, techniques, and procedures. By having the CJCS's day-to-day manager of the Joint Doctrine Program collocated with the joint training processes, we have established a cycle of input and output of doctrinal ideas from all training and exercise events.

The JWFC provides worldwide support to all CINCs, Services, and Joint Staff as the "honest broker" in joint doctrine. Our role, as described in Joint Publication 1-01, *Joint Doctrine Publication System*, has three primary responsibilities:

- Write joint doctrine.
- Coordinate with other activities that are tasked to write joint doctrine.
- Disseminate and integrate doctrine into the training and exercise program.

Whether writing joint doctrine or supporting others who write it, the JWFC accomplishes the same key tasks during

doctrine development. These include:

- Analyzing new doctrine proposals.
- Developing directives that outline the structure of new publications.
- Hosting working groups to discuss publications.
- Coordinating and commenting on publication drafts.
- Assessing all approved publications.
- Revising these publications when necessary.

A critical JWFC role in the doctrine process is to assess current joint publications. Blessed with officers from all four Services who possess a broad range of military skills, we identify and address shortcomings in joint publications, inconsistencies between similar documents, and voids in the doctrinal library. We also assess the overall readability of publications and ensure that training processes are consistent with joint doctrine. Finally, we observe the application of doctrine during training events.

JWFC personnel help the Joint Staff J7, Joint Education and Training Division, to certify and accredit joint professional military educational institutions.

The USACOM JWFC Joint Doctrine Division and its electronic library may be accessed on the NIPRNET at *http://www.dtic.mil\doctrine*. This site allows access to all approved joint doctrine tools and sites.

Emerging Systems

The following emerging systems will support joint training:

Distributed Joint Training Initiative

A new initiative within the Joint Warfighting Center is our involvement in distributed joint training. As the Chairman of the Joint Chiefs of Staff expressed in Joint Vision 2010:

"Simulations must be interconnected globally—creating a near real-time interactive simulation superhighway between our forces in every theater. Each CINC must be able to tap into this global network and connect forces worldwide that would be available for theater operations. This network will allow selected units in CONUS to train with forces located in an overseas theater without actually deploying there."

The vision of this program is to establish global distributed architecture that integrates and shapes related Department of Defense initiatives, programs, and operational requirements. It will link Service and joint programs and provide the capability for worldwide warfighter participation in joint training on demand. This program will become the means for distributing training, as envisioned in Joint Vision 2010.



Joint Exercise Management Package

Joint Exercise Management Package (JEMP) III will provide automated support for the joint training system. When complete, the JEMP III will have four modules, one to support each phase of the system. The Mission Requirements Module and the Mission Planning Module are in place, and the Mission Execution and Mission Assessment Modules are being developed. The Mission Requirements Module identifies CINC mission requirements and helps develop the CINC's joint mission essential task list. The Mission Planning Module automates development of all required tabs of the CINC's Joint Training Plan. When the four modules are complete, the system will provide a range of database information to manage the CINCs' training programs.

The Road Ahead

The JWFC is a growing organization that is involved in almost every aspect of joint training. It is more than a conglomerate of programs and systems. The JWFC is a dynamic organization that enhances the U.S. military's ability to conduct coherent joint operations through the synergistic effect of training support, modeling and simulations, doctrinal services, and distributed learning and training technologies. Our role in these programs and our innovative use of emerging information technologies places us on the cutting edge of joint training. I encourage you to contact us on our NIPRNET and SIPRNET web sites and to use the services and products that we provide.

Major General Berndt is commander of the Joint Warfighting Center, Fort Monroe, Virginia, and the director for joint training (J7), USACOM, Norfolk, Virginia. He previously served as deputy commander, U.S. Marine Corps Forces, Atlantic; and with the Office of the Joint Chiefs of Staff and Headquarters, U.S. European Command.

Colonel Clauer is the deputy director of the Joint Training, Analysis and Simulation Center of the Joint Warfighting Center, Suffolk, Virginia. He previously served as head of the Concepts Division at JWFC, responsible for concept development and implementation of Joint Vision 2010.