Volume 5, Issue 2

October 2000

Combat Developments Newsletter

Deputy Chief of Staff for Combat Developments
Fort Monroe, Virginia

Architect of the Future Army

Inside this issue:

DCSCD Home Page: www.tradoc.army.mil/dcscd

Joint Contingency Force Advanced Warfighting Experiment (JCF AWE)

The Joint Contingency Force Advanced Warfighting Experiment successfully concluded its exercise phase on 22 Sep, as the 1st Brigade Task Force of the 10th Mountain Division completed its rotation at JRTC 00-10. After a compressed development and ramp-up schedule, personnel from across the Army and sister services arrived at Fort Polk, Louisiana in mid-August to face extreme environmental conditions, such as 110-degree heat, storms, and lightning. The team of military, civilian, and contractors succeeded in overcoming these challenges, resulting in the most successful Army experiment to date. A stable, reliable Tactical Internet and digitization capabilities, along with a capable and determined EXFOR, resulted in execution that exceeded standard and expectation.

The JCF AWE was focused on increasing the survivability and lethality of dismounted forces through knowledge-based enablers, in a venue of four "fights": the Joint Fight; the Brigade Digital Fight; En-Route Mission Planning and Rehearsal System, and Land Warrior.

Through several joint initiatives and by participating in JFCOM's large scale joint experiment (Millennium Challenge 2000), Army units collaboratively planned and shared initial situational awareness with sister services and the Joint Task Force (JTF) HQ. The Digitized Brigade demonstrated the ability to collect and exploit digital information to accomplish its mission; emerging insights indicate that they achieved measurable improvements over baseline in several areas. EXFOR units utilized the En-Route Mission Planning and Rehearsal System to receive changes digitally while airborne, change and rehearse their plans, and execute the new mission once on the ground. They utilized several ABCS systems – AFATDS, ASAS and MCS – along with Battlefield Planning and Visualization, Netmeeting, and other capabilities. Finally, the prototype version of Land Warrior showed promise in several areas – units assembled faster, moved more confidently, and, in at least one case, contributed to preventing fratricide. The AWE also pointed out shortcomings in several areas – it demonstrated accelerated OPTEMPO without accelerated LOGTEMPO, for example.

The AWE now moves to its third and final phase, post-experiment modeling and analysis. An initial insights briefing is available from Joint Venture; a more refined initial insights memorandum is due in December, with the Final Report due 1 Apr 01.

HQ TRADOC POC: LTC John Dannon, DSN 680-3603, dannonj@monroe.army.mil

Establishment of the Architecture Integration Center

A key component of the TRADOC Architecture Redesign Initiative, the Architecture Integration Center (AIC), is being stood up. The electronic reference files and tools will be at Fort Gordon, Georgia. The AIC will be the integrator of all TRADOC; proponent developed architecture products and will be under the direct control of HQ TRADOC. Responsible for the day-to-day management of the architecture effort within TRADOC, it will enable a single architecture process for both operational (information processing and transport requirements) and system (means to satisfy) architectures; furthermore, the AIC will establish the priorities for product development; and approve product release.

As proponents develop their architecture products, they will be virtually linked to the AIC via a computer terminal at their location. That terminal will be part of the Army Architecture Repository Management System (AARMS), operated and maintained by the AIC. A fully functional AARMS is expected to be operable by Feb 02. An interim AARMS capability will allow proponents to use their current C4RDP terminal, managing and storing products as files. The AIC will publish a procedures guide for use during this interim period, NLT 1 Jan 01.

To discharge its release authority, the AIC will validate architectures, using the Architecture Validation Board, modeled after its predecessor, the OPFAC Board. This validation process is in place and maturing.

The TRADOC Architecture Redesign Implementation Plan (currently circulating as a DRAFT) explains in further detail the role of the AIC and its relationship with proponents and other parts of the Army Enterprise Architecture community.

HQ TRADOC POC: Mr. John Wallen, DSN 680-3303, wallenj@monroe.army.mil.

Supportability Co-equal with Cost, Schedule and Performance

In a policy memorandum titled " Supportability Co-equal with Cost, Schedule, and Performance", dated 27 February 2000, the Assistant Secretary of the Army (Acquisition, Logistics and Technology), Mr. Paul J. Hoeper, stated the following:

"The Department of the Army holds supportability to be co-equal in importance with the materiel development considerations of cost, schedule, and performance. Accordingly, it is incumbent upon everyone involved in the acquisition and logistics processes to ensure that system supportability is fully addressed throughout the development, acquisition, fielding, and utilization of the system. AR 700-127, Integrated Logistic Support, provides Army policy on supportability planning and execution. … Effective supportability is integral to the success of a system. To achieve this end, supportability must be under discussion and evaluation from the very inception of the system idea."

Supportability becomes even more important given the efforts to reduce the size of the logistic footprint in the objective force. Combat Developers will take action to include logistical/ CSS proponents in the Integrated Concept Teams (ICTs) for Concept development, DTLOMS Determination, and materiel requirements document development. In accordance with the AAE's policy above, supportability requirements will be treated on an equal basis with cost, schedule and performance when documenting requirements and when conducting trade off analysis. Supportability requirements may be rolled up into a system measurement and designated as a KPP. This will ensure the supportability requirements are given the same weight and visibility of the other requirements.

An appendix will be added to the TRADOC Pam 71-9 presenting detailed guidelines for including logistical/CSS proponent in the development of concepts and requirements.

Updating Information Technology Operational Requirements Documents

In light of the very high rate of advancements in automation technologies, TRADOC PAM 71-9 requires that all information technology (C4ISR) MRDs be reviewed annually for update. Mr. Resnick, the Assistant Deputy Chief of Staff for Combat Developments (ADCSCD), signed a memorandum on 12 Sep 00 requesting proponents conduct this year's review and provide appropriate updates by 29 Nov 00. The primary intent of this review is to validate and/or update requirements, and secondarily for those needing update to comply with changes in format specified in DoD, Joint and/or Army directives (DoD Instruction 5000 series, CJCSI 3170.01a/521201b, and TRADOC PAM 71-9, as appropriate).

TPIO ABCS memorandum, 11 Jul 00, SUBJECT: Army Battle Command System Recognized Essential BFA Components and Enabling Components, established ORDs that are part of the ABCS CRD system of systems include:

ORD NAME	PROPONENT
GCCS-A	TSM-MCS/GCCS-A
TAIS	AVIATION CENTER
ASAS	INTELLIGENCE CENTER
CSSCS	CASCOM
AFATDS	ARTILLERY CENTER
AMDPCS	AIR DEFENSE CENTER
DTSS	ENGINEER CENTER
MCS	TSM-MCS/GCCS-A
WIN-T	SIGNAL CENTER
IMETS	INTELLIGENCE CENTER

HQ TRADOC POC: Gene Lorge, DSN 680-5423, lorgeeh@monroe.army.mil

MANPRINT Implications of COTS/NDI For The Brigade Force Initiative

by MAJ Richard S. Barbera, Hugh Denny, and Nick Hubbell
reprinted [and abridged] from the March-April 2000 Army AL&T (HQDA PB-70-00-2)

On Oct. 12, 1999, Army Chief of Staff GEN Eric K. Shinseki presented his vision of the Army of the 21st century to members of the Association of the United States Army. Brigade Force Initiative (BFI) units are characterized as full-spectrum-capable forces. They are more lethal, survivable, and deployable, with a reduced logistics footprint. Shinseki stated that an interim force of two brigades located at Fort Lewis, WA, would make full use of NDI systems to get the program moving quickly.

BFI changes the way soldiers train and fight as well as the number and types of systems they operate and maintain. The success of the BFI will depend on the most innovative and comprehensive application of manpower and personnel integration (MANPRINT) to date.

Unlike the traditional Army acquisition process, which can take years, commercial off-the-shelf (COTS) systems and nondevelopmental items (NDIs) will be used to initially equip BFI units.

A COTS-/NDI-based approach results in significant timesavings in the research, development, and acquisition process. The engineering and manufacturing development phase is replaced with a brief candidate evaluation and down-selection process. In the case of NDI, previously developed U.S. or foreign defense military Service items are primary candidates. This article discusses MANPRINT implications of a COTS/NDI strategy and how that strategy supports the BFI.

Why Is MANPRINT Important?

The agency responsible for the Army's implementation of MANPRINT is the Personnel Technologies Directorate in the Office of the

(Continued on page 4)

(Continued from page 3)

DCSPER. The Army Research Laboratory, Human Research and Engineering Directorate (ARL-HRED) assists the DCSPER with implementing MANPRINT into ongoing development programs and is responsible for long-term soldier research. ARL-HRED is uniquely suited to the MANPRINT task, with its field elements collocated at each of the key Army Materiel Command and Training and Doctrine Command facilities.

By emphasizing the soldier's requirements in the acquisition process, MANPRINT influences design and fielding of weapon systems to improve battlefield effectiveness while reducing life-cycle costs. Given the need for a quick vehicle selection in the BFI, MANPRINT participation is essential early in the selection process to identify the pluses and minuses of a particular soldier-system design.

Implementing MANPRINT into the BFI presents a unique challenge because NDI and COTS system designs are relatively mature. Nevertheless, MANPRINT plays a key role in assisting decisionmakers regarding the viability of a given solution. Many important issues directly impact system operational effectiveness. These issues include manpower required to support the new force compared to existing brigades; soldier aptitudes and skill levels; characteristics of user personnel; whether crew station designs accommodate the 5th through 95th percentile soldier; and the critical tasks and changes to tactics, techniques, and procedures (TTPs) required to ensure maintainability and survivability on the battlefield.

Presently, a team of MANPRINT personnel is involved in supporting ongoing BFI activities with the maneuver Mounted Battlespace Battle Lab and the Armor School at Fort Knox, KY. The MANPRINT team, which is led by ARL-HRED, is composed of personnel from RL-HRED, CHPPM, and RL-SLAD. ARL-HRED plans to furnish MANPRINT personnel for BFI at Fort Lewis, WA.

Conclusion

Through application of MANPRINT into the BFI, the return on investment can be substantially improved. COTS and NDI offer a tremendous opportunity to provide a near-term, cost-effective materiel solution with current, proven technology. Identification of soldier-system interface issues also provides the means to either incorporate system design changes or, in cases where a redesign is not feasible, changes in TTPs. Considering the urgency of the BFI, MANPRINT will facilitate the selection process, highlight possible strengths or weaknesses with a particular soldier-system design, and identify the required workarounds to ensure optimal combat effectiveness.

HQ TRADOC POC: LTC Lee Myers, DSN 680-5861, myersl@monroe.army.mil

IBCT use of Foreign Vehicles for Developmental Training

Armored vehicles from three foreign countries began arriving at Fort Lewis, WA, in September to serve as surrogate interim armored vehicles (IAVs) for the initial Brigade Combat Team (IBT) developmental training. Canada, Italy, and Germany are the foreign countries providing loaner vehicles. Although the future IAV has not been identified, milestones have been established for its selection and fielding. The foreign loaner vehicles, along with other U.S. surrogate vehicles, will assist in the development, refinement, and assessment of tactics, techniques, and procedures. However, use of the loaner vehicles or any other U.S. surrogate vehicles for the IBCT is not an indication that the U.S. Army has chosen a specific vehicle platform or manufacturer for its future IAV.

HQ TRADOC POC: CPT (P) Alfred Jackson, DSN 680-5489, jacksonaj@monroe.army.mil

Combat Developments Training

Combat Developments Course. The two week course is for Army Officers (CPT to LTC), warrant officers, noncommissioned officers (SFC and above), and civilians (GS 11-GS14) recently assigned to, or enroute to, their initial assignment in a CD or materiel acquisition position. The course is taught by the Army Logistics Management College at Fort Lee, Virginia. A course schedule is provided below. See your training managers for instructions on how to apply.

COMBAT DEVELOPMENTS COURSE—ALMC

Class #	Start Date	End Date	Nominations Due	Location
2001 - 001	04 Dec 2000	15 Dec 2000	20 Oct 2000	ALMC, FT LEE, VA
2001 - 002	08 Jan 2001	19 Jan 2001	24 Nov 2000	ALMC, FT LEE, VA
2001 - 706	29 Jan 2001	09 Feb 2001	15 Dec 2000	FORT KNOX, KY
2001 - 701	29 Jan 2001	09 Feb 2001	15 Dec 2000	CANCELLED
2001 - 003	26 Feb 2001	09 Mar 2001	12 Jan 2001	ALMC, FT LEE, VA
2001 - 702	19 Mar 2001	30 Mar 2001	02 Feb 2001	FORT SAM HOUSTON, TX
2001 - 705	23 Apr 2001	04 May 2001	09 Mar 2001	FT LEONARD WOOD, MO
2001 - 004	14 May 2001	25 May 2001	30 Mar 2001	ALMC, FT LEE, VA
2001 - 005	24 Sep 2001	05 Oct 2001	10 Aug 2001	ALMC, FT LEE, VA

Notes

⇒ The 2000 review of TRADOC Pam 71-9 is completed and the document is being prepared for final editorial review. The Pamphlet will be approved on or about 30 November 2000. It will be posted to the DCSCD home page immediately after approval, and placed on the TRADOC home page within 2 to 3 weeks of approval.

⇒ Soldier System Review (SSR). The annual four star SSR will be held at the Hampton Quality Inn Conference Center, Hampton VA on 1 Dec 00. The SSR will provide TRADOC and AMC Commanders updates on current initiatives and modernization strategy for Soldier programs.

⇒ Non-Lethal Proponency. Effective with TRADOC memorandum (ATCD-ML), 12 Sep 00, subject: Proponent for U.S. Army Non-Lethal (NL) Applications, the Military Police School assumed responsibility for NL tactical applications and became the sole TRADOC proponent for NL applications.

Editor: Mr Sean O'Malley, omalleys@monroe.army.mil
Policy & Operations Division Chief: Mr. Dale Jones, jonesd1@monroe.army.mil
Director, PMSD: Ms Billie Young, youngb@monroe.army.mil