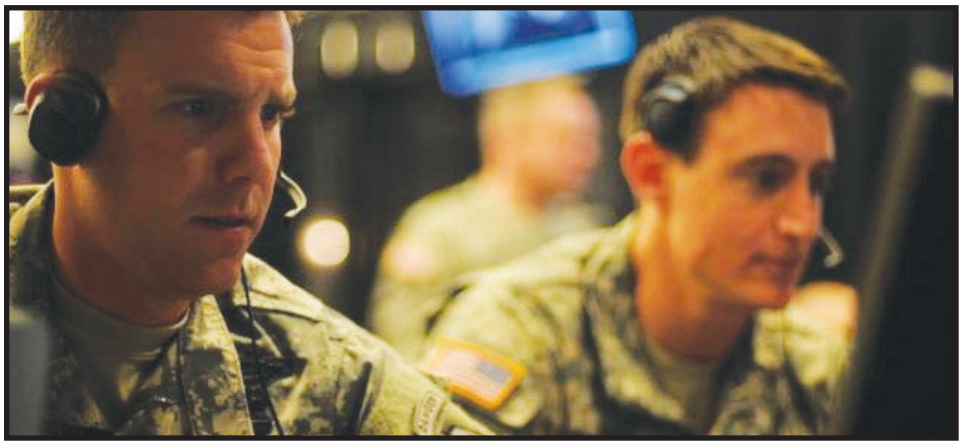
Digital Training and Doctrine Division

By Patrick S. Baker

Relevant professional education and training is available to Signal Soldiers no matter where they are in the world because of the Digital Training and Doctrine Division at the Signal Center of Excellence.

The DTD G-3/6 of the G-3/5/7 has five branches: Distributed Education Branch, Critical Task Management Branch, Gaming Integration Branch, Doctrine Development, and the LandWarNet e-University.



U. S. Forces can take advantage of education and training opportunities through a variety of tools delivered electronically anywhere in the world.

Distributed Education Branch

The primary mission of the Distributed Education Branch is to provide oversight of distributed learning resources and provide technical expertise for the acquisition process for Interactive Multimedia Instructional products and to be the Signal Center of Excellence's liaison office to TRADOC/CAC/ ATSC for all Army Learning Model initiatives pertaining to distributed Learning. The organization accomplishes this mission by providing project management services and quality assurance for all Interactive Multimedia Instruction developed for the SIGCoE to include coordinating approval, funding, development, and distribution of all SIGCoE IMI. Additional oversight responsibilities include coordinating the implementation of all Army Enterprise Classroom Program initiatives at the SIGCoE.

The experience and work efforts of the staff have historically supported decisions made by course managers concerning choices/decisions on how instruction is best delivered by technology and what is best conducted face-to-face or hands-on. The technology incorporated in institutional training to date has allowed the SIGCoE to expand the reach of individual and collective training to soldier/leader locations and employ the same familiar delivery means to units in an integrated training environment supporting both individuals and units.

Specifically, the DEB has accomplished the following actions in support of its mission:

(1) Developed over 30 active dL courses/products by the end of FY11 which resulted in 50,000 students receiving instruction via dL and other learning technologies (Number of students given represents those enrolled in courses taken to support resident/nonresident/ sustainment/NET/MTT training on-line each month via the Fort Gordon LifeLong Learning Center Open Enrollment and Unit Universities (Blackboard Server)). Interactive multimedia instruction greatly enhances and standardizes instruction for Active Component and Reserve Component units throughout the Force when self-development, sustainment, refresher and remedial training are conducted. The following Virtual/PC-based simulators and CBTs are available via the LandWarNet e-University (https://lwn.army.mil) web portal to facilitate communications equipment operations training:

(2) Support of Connecting Soldiers to Digital Applications Initiative: The DEB has the sole responsibility to validate the content distributed through mobile applications for Signal-related topics in support of the efforts to institutionalize CSDA. Validating Signal-related Apps on an on-going basis will allow the Signal Center to further exploit the value of providing Soldiers with digital applications on Mobile Electronic Devices to provide mobile learning and operational app products at the point of need for all three domains of Army learning; Institutional, Operational and Self Development.

(3) Served as a "quality control" agent and life cycle manager for existing Signal dL products. Dedicated,

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qualified personnel monitor the development, fielding and maintenance of new and existing IMI in the SIGCoE courseware inventory to ensure the courseware is readily available for use via the LWN eU Blackboard Server 24x7. There are currently 32 fielded PC-based Simulators and four Computer Based Training products in the inventory. Approximately 12 more IMI products are being planned for development between now and FY14.

(4) Facilitated Army Enterprise Classroom Program classroom upgrades at the SIGCoE. The major objective of the AECP is to provide a vehicle for all TRADOC installations to "modernize" all classrooms used for training to ensure they are configured to support 21ST Century training technologies. The DEB coordinates installation of all AECP technology upgrades for IT/audiovisual equipment for all existing training classrooms on Fort Gordon. The AECP also includes Classroom 21 Program operations.

(5) Performed Audio Visual Production Officer responsibilities. The DEB coordinates the development and review of the Signal Center's Graphic Training Aids, Army Correspondence Course Program; Signal sponsored Multimedia Visual Information Products to include the production and approval of training films, television tapes, and Army Recruiting Information Support System video tapes for Signal Corps military occupational specialties.

Gaming and virtual programs place learners in realistic environments to complete scenario driven exercises.

Critical Task Management Branch Mission

The branch's main mission is to conduct training needs analysis and mission analysis for all Signal Regiment organizations Table of Organization and Equipment. Also to develop Combined Arms Training Strategies products, Warfighter Training Support Packages, collective tasks, and drills to support unit training. Further, the Branch implements the Critical Task/Site Selection Board processes in accordance with Fort Gordon Regulation 350-7.

Also, one branch members serves as Training Development Capability system administrator for over 300 SIGCEN training developers providing database support for Programs of Instruction, lesson plans, critical tasks, Warrior Training Support Packages, training equipment data, and other training support materials.

In Fiscal year 11 the Branch published 23 Combined Arms Training Strategies to support unit training across the Signal Regiment. Designed, developed, and implemented on-line training support system for CT/SSB processes, Training data table updates, and TDC account transaction requests that reduced overall processing time by 60% and Met all Collective Training FY11 TRADOC Accreditation Requirements.

In FY12 the Branch plans to publish 20-30 Combined Arms Training Strategies products covering functional and multi-functional Brigades through the Army and also to develop, test and publish Command Post Exercise – Functional Brigades Training Support Packages to support Signal Brigade training at Combined Arms Training Centers.

Gaming Integration Branch

The primary mission of the Gaming Integration Branch is to provide gaming or virtual training solutions that address training requirements across the Signal Regiment. The organization accomplishes this mission by providing informational briefings on capabilities and available products, providing demonstrations of

(Continued on page 16)

(Continued from page 15)

technology, developing training scenarios, and assisting in the implementation of training plans. The primary tools available for gaming initiatives are the Army's gaming flagship program, Virtual Battle Space 2, 52 system suite of laptops that host the software, and the Nodal Network Simulator.

The Gaming Branch consists of one functional area 57 (Simulation Officer) and a currently unfilled 25 series Sergeant first-class. The use of virtual worlds and gaming technology is scheduled to drastically increase across the Army due to the relatively low overhead cost, the ability to replicate training scenarios, and the advantage of running multiple iterations without wear on personnel or equipment.

Specifically, the Gaming Integration branch has accomplished the following actions in support of its mission: Coordinated and executed an 80-hour operator and administrator VBS2 course at Fort Gordon. The course, taught by TCM-Gaming, provided overall capabilities of the system, scenario development instruction, after action review techniques, and best practices for 21 training developers across the installation. Training developers could then return to their organization better equipped to tackle training challenges in a resource austere environment.

The branch provided 10 informational briefings and demonstrations of gaming solutions for training across the installation. The following list briefly describes the approved Army Games for training (available at https://milgaming.army.mil)

Army Approved Games for Training

Virtual Battle Space 2 (VBS2, flagship program) – 3D first person games-for-training platform that provides realistic semi-immersive environments, large, dynamic terrain areas, and ability to develop scenarios that support unit training objectives.

Virtual Battle Space 2-Fires – advanced call-for-fire model for VBS2 that simulates artillery, naval gunfire support, mortars and MLRS to a high level of detail.

Moral Combat – training software program that transforms traditional Army ethics education by injecting a series of challenging ethical scenarios into a 3D first person game.

Elect Bilat – 3D software simulation designed with a specific training objective; to provide an immersive and compelling training environment to practice skills in conducting meetings and negotiations in a specific cultural context.

Operational Language – suite of self-paced interactive programs that enable rapid and sustained learning of foreign languages and cultures (Iraqi, Dari, and Pashto).

UrbanSim – PC-based virtual training application for practicing the art of battle command in a complex counterinsurgency and stability operations.

Established a training network of 20 VBS2 systems at FOB Dunham in support of the Mercury Fusion Capstone event. The training facilitators are using the VBS2 systems to reinforce basic skills that the Soldiers had learned in their initial combat training. Additionally, the use of VBS2 allows facilitators to better instruct and practice required training on the Warrior tasks and battle drills. Virtual training will never be able to completely replace live training, but in a world of limited resources, limited time, and limited money gaming can help bridge the gap.

Selected to serve as the Connecting Soldiers to Digital Applications lead for the Signal Center. The Gaming Integration Brach will ensure that any application, where the Signal Center is the proponent of the content, is accurate and correct before receiving permission to be posted on the Army Store Front.

Future projects include refining the virtual Fort Gordon terrain for use in VBS2 or other gaming solutions. Many organizations want to utilize VBS2 as a means for rehearsals or for the crawl and walk phase of training; the ability to utilize recognizable terrain and surroundings makes the training much more immersive. The Gaming Integration Branch will coordinate with the National Simulation Center and TRADOC Capability manager for Gaming on a hardware refresh for the VBS2 suite and will also be upgrading the VBS2 software.

Doctrine Branch

The Doctrine Branch manages the Signal Regiment Doctrine Publication Program in accordance with U. S. Army Training and Doctrine Command regulations. The Doctrine Branch identifies requirements for new publications, revisions to existing publications, developing and revising selected multi-Service, joint, multinational doctrine publications, and polices and governing regulations. The Doctrine Branch ensures Signal Regiment doctrine is integrated, with higher-level Army, multi-Service, multi-national, and joint doctrine developers—avoiding conflict with other Army doctrine. The branch develops and maintains Doctrine's Army Knowledge Online, LandWarNet eUniversity and SharePoint portals. The Doctrine

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Branch also governs the Signal Regiment Lessons Learned Program, which coordinates with, and receives feedback from, signal operational units to verify and validate Army observation, issues and lessons learned—a key driver for changes in doctrine. The Doctrine Branch also provides doctrinal subject matter expert support for multiple Integrated Capabilities Development Team actions for critical mission area requirements in support of Army LandWarNet and Army transformation incentives.

During the previous year, Doctrine was still a section under the Signal Center of Excellence's Concepts, Requirements, and Doctrine Division. Doctrine continued to write the new capstone manual for Signal, FM-602: Signal Support to Army Operations, while updating other supporting field manuals for Signal. Additionally, the Doctrine Section reviewed for comment over 130 various doctrine publications and products from joint-service and Army centers and schools. In FY 11, the Signal Lessons Learned team visited and/or interviewed 21 army units, designed and implemented a user-friendly SLL website on the LWN eUniversity portal, and identified as on the of the top three lessons learned sections in TRADOC.

With the implementation of the TRADOC's new Doctrine 2015 concept, Signal Doctrine, along with all other Army schools and centers, is completely transforming all doctrine publication to a more streamlined, intuitive and relevant set of publications. The FM 6-02: Signal Operations is being completely restructured as the Signal Regiment's single, capstone Field Manual. All other doctrine publications, Army Technical Publications and Training Circulars, will precipitate from FM 6-02. These doctrine publications will all be made available in draft versions online (and wiki versions) for the Signal community and army-wide input before final publication. With the transformation to Doctrine 2015, Signal Doctrine is now a branch within the Digital Training Division and Signal Center of Excellence G3/5/7. Under Doctrine 2015, the Signal Lessons Learned team will be focused on affecting changes to signal doctrine based on their products.

LandWarNet e-University

LWNeU is a TRADOC multiple award winning Distributive Learning operation and the flagship for Army Distributive Sustainment Training. LWNeU provides on-line delivery of Signal MOSQ, Communications and Information Technology sustainment training for all Army Soldiers, Units and Department of the Army Civilians. LWNeU hosts the enterprise on-line MOS and

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(Continued on page 18)

(Continued from page 17)

distributed learning capability on SIPR for all TRADOC Proponent Schools. LWNeU also delivers C4 and unique IT training for all Army Network Enterprise Centers and a tailored on-line C4 battle command system sustainment training capability for all FORSCOM Units. LWNeU responds immediately to any training request and works to alleviate training deltas for Soldiers and Units located anywhere in the world.

In 2009, LWNeU pioneered an on-line blended learning solution for Army RC Signal MOS-T (MOS Transition). This initiative has grown to where LWNeU now supports 18 USAR/ARNG Regional Training activities saving over $62 million in Unit training funds during FY10/11. LWNeU also invented and hosts web-training portals for individual Units (Unit Universities) that contain sustainment training, Simulations, and Web-based training for Army/Joint Units and NECs. LWNeU currently hosts and manages 675 Unit Universities supporting Soldier and Unit training in all phases of the ARFORGEN and all theaters of operation.

LWNeU upgraded its on-line training capability this year with the launch of a new LWNeU Portal system (lwn.army.mil). The new portal provides access to all available LWNeU on-line sustainment training products directly from the portal. All training products, courses and simulations are now organized into training wikis and categorized by equipment type, assemblage, or task. You can either browse for training products by selecting a wiki in the training category or use the search function to search the entire training content area to find a specific training product quickly. Can't find what you need? Every training wiki and the LWNeU Main page have a link that will assist you to request additional training.

Patrick Baker ***entered civil service in September 1998. He is a graduate of the Department of the Army Training Development Intern Program. After completing the intern program, Mr. Baker was assigned as a Training Developer in the Regimental Officers' Academy. He then moved to the U.S. Army Computer Science School where he also worked as a Training Developer for Warrant Officers Professional Military Education. This was followed by assignments in the 15th Signal Brigade as the 25Q Training Developer and Chief of the Area Communication Training Development Branch. He has served in his current assignment since 2007. He also holds degrees in Education, History and Political Science.***

Acronym QuickScan

AC- Active Component
ACCP - Army Correspondence Course Program
AECP - Army Enterprise Classroom Program
AKO - Army Knowledge Online
ALM - Army Learning Model
ARISS - Army Recruiting Information Support System
AVPRO - Audio Visual Production Officer
CATS - Combined Arms Training Strategies
CBT - Computer Based Training
CPX-F - Command Post Exercise – Functional Brigades
CRDD -Concepts, Requirements, and Doctrine Division
CRXXI - Classroom 21
CSDA - Connecting Soldiers to Digital Applications
CT/SSB - Critical Task / Site Selection Board
DEB - Distributed Education Branch
dL - distributed Learning
DTD - Digital Training and Doctrine Division
FORSCOM - U. S. Army Forces Command
GTA - Graphic Training Aid
ICDT - Integrated Capabilities Development Team
IMI - Interactive Multimedia Instructional
LLC - LifeLong Learning Center
LWN-eU - LandWarNet e-University
MED - Mobile Electronic Devices
MOS - Military occupational Specialties
MTT – Mobile Training Team
NET - New Equipment Training
NNS - Nodal Network Simulator
OILs - Observation, Issues and Lessons
RC - Reserve Component
SIPR – Secret Internet Protocol
SME - Subject Matter Expert
TCM – TRADOC Capabilities Manager
TDC - Training Development Capability
TOE - Table of Organization and Equipment
TRADOC - U. S. Army Training and Doctrine Command
TSP - Training Support Packages
VBS2 - Virtual Battle Space 2
WTSP -Warfighter Training Support Packages