

U.S. Army Signal Center and Fort Gordon



Distributed Learning Plan

September 2007

U.S. Army Signal Center and Fort Gordon Distributed Learning Plan

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Overview

General

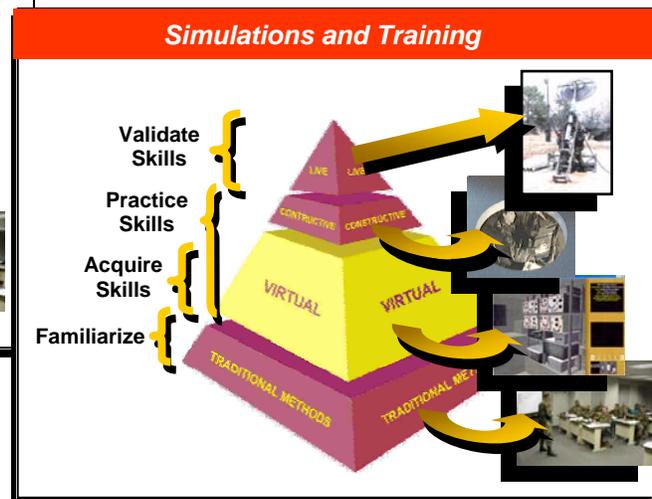
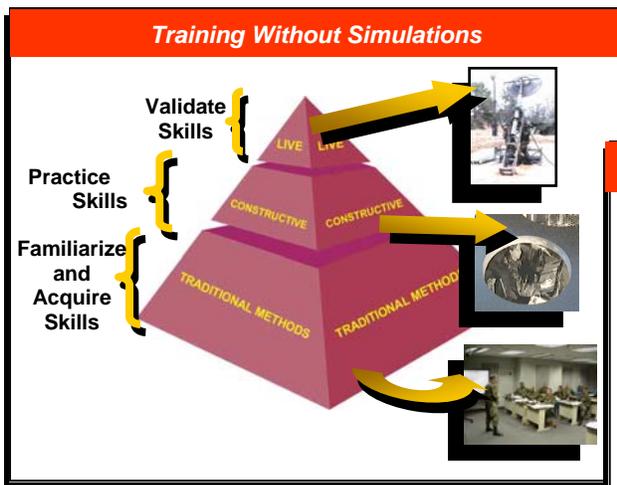
The U.S. Army Signal Center and Fort Gordon (USASC&FG) plays an important role in LandWar-Net (LWN). The Signal Regiment develops agile and adaptive professionals to become LWN integrators. Distributed Learning (dL) plays a central role in meeting the education and readiness demands of these warfighters. The USASC&FG dL Plan brings together the many facets of dL into one common standard.

The goals of the USASC&FG dL Plan are to:

- Support Army Force Generation (ARFORGEN) model
- Support tenets of lifelong learning
- Support the LWN concept
- Provide information detailing how Fort Gordon executes dL

- Describe Fort Gordon's dL infrastructure
- Lay out process for interactive courseware (ICW) development and fielding
- Market dL to Soldiers, Leaders, and Civilians

The challenge we are faced with is to create a paradigm that incorporates the Signal Center's lifelong learning goals, provides greater support to our Soldiers and Department of the Army (DA) Civilians, and enables knowledge dominance throughout the battle space. The infrastructure of our dL platforms to date has primarily focused on dL capabilities externally via the internet. We need to refine and expand to a greater degree using dL resources within resident training. The need to incorporate the tenets of lifelong learning must be realized and will require a robust learning management architecture that delivers training and communications over various mediums.



SECTION 1. INTRODUCTION

The USASC&FG dL Plan focuses on:

- The Army's lifelong learning training program and processes with an emphasis on incorporating lifelong learning technologies into resident and nonresident training.
- Developing dL, concepts, processes, and tools to exploit the development and delivery capabilities of dL to enhance the professional development of Soldiers, Leaders, and Civilians.
- Delivering high quality, individually tailored, and cost effective training and education to Soldiers, Leaders, and Civilians through an integrated network of technological capabilities and processes.

The dL Plan is structured to achieve the following goals:

- Support the Army at War
- Support ARFORGEN model
- Increase training readiness
- Provide capability for reach-back access to training and reference materials
- Improve access and opportunity for training
- Provide lifelong learning opportunities
- Improve effectiveness in training and education
- Provide access to training anytime and anyplace
- Provide the Signal Center's leaders and training proponents with the information necessary to better plan and make use of resources

The plan defines responsibilities, looks at initiatives, specifies actions, and identifies milestones necessary to stay aligned with the Army's dL vision. Distributed learning is guided by the mission of improving readiness by delivering standardized individual, collective, and self-development training to Soldiers and units any time and any place using multiple means and technologies.

The key components of the USASC&FG dL Plan are listed below:



Distributed Learning Defined

Distributed learning is delivering standardized individual, collective, and self-development training to Soldiers and units any time, any place. This is accomplished through multiple means and technologies with synchronous and asynchronous student-instructor interaction.

Distributed learning products and delivery methods include, but are not limited to:

- Simulators
- Simulations
- Correspondence courses
- Audio conferencing
- Video teletraining (VTT)
- Web-based instructor facilitated training (WBIFT)
- Interactive multimedia instruction (IMI) completed at installations, operational sites, or home
- IMI completed in a dL facility at an installation
- IMI completed in a unit deployed at an operational site

Distributed learning leverages technologies into training to achieve the following benefits:

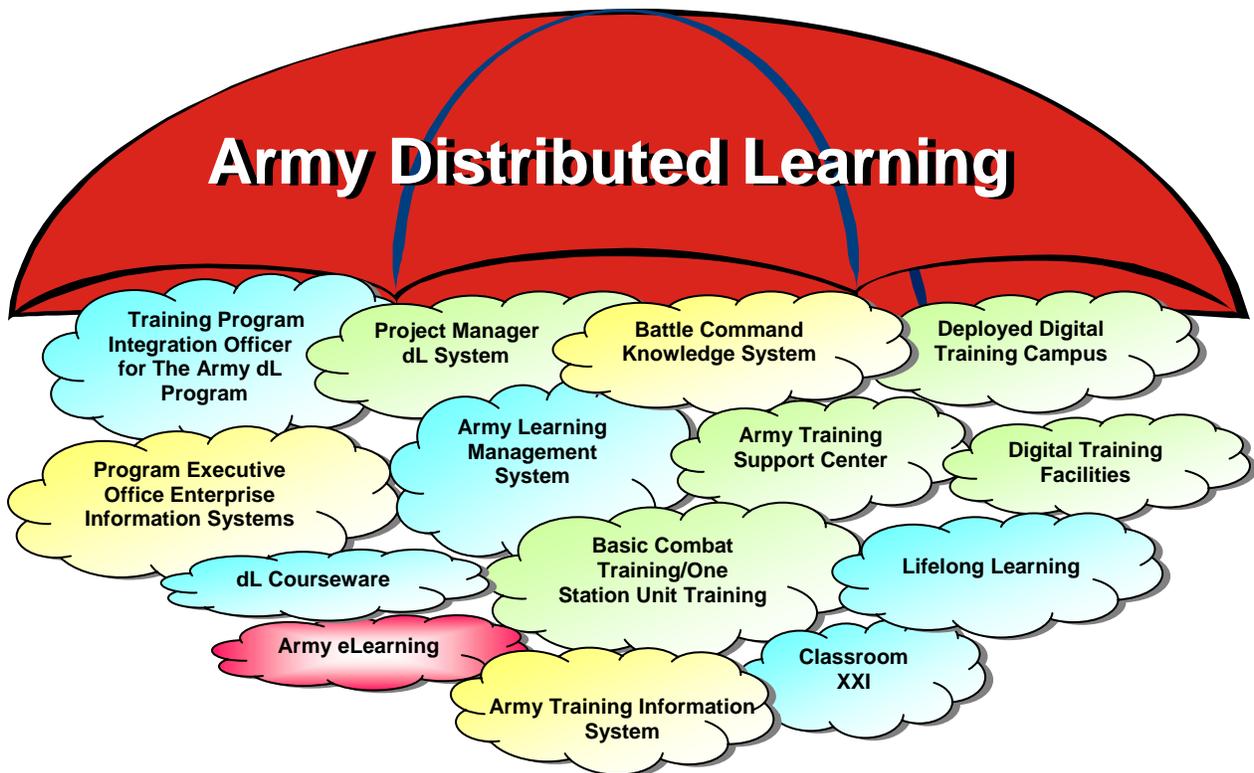
- Improved readiness
- Continuous training throughout the Soldier's career
- Closing the gap between training and operating environments
- Facilitating more responsive development and distribution of critical training
- Reducing Soldiers' time away from unit/home
- Leveraging training efficiencies through multimedia and immersive training products
- Avoiding significant training cost
- Standardizing Reserve Component (RC) and Active Component (AC) training
- Placing publications and reference materials in digital form for quick use
- Accessibility to online education courses

- Quicker and wider dissemination of updated training materials
- More realistic simulations



You will find a number of offices, organizations, facilities, training methodologies, knowledge systems, and management systems under the umbrella of dL. More in-depth information will be pro-

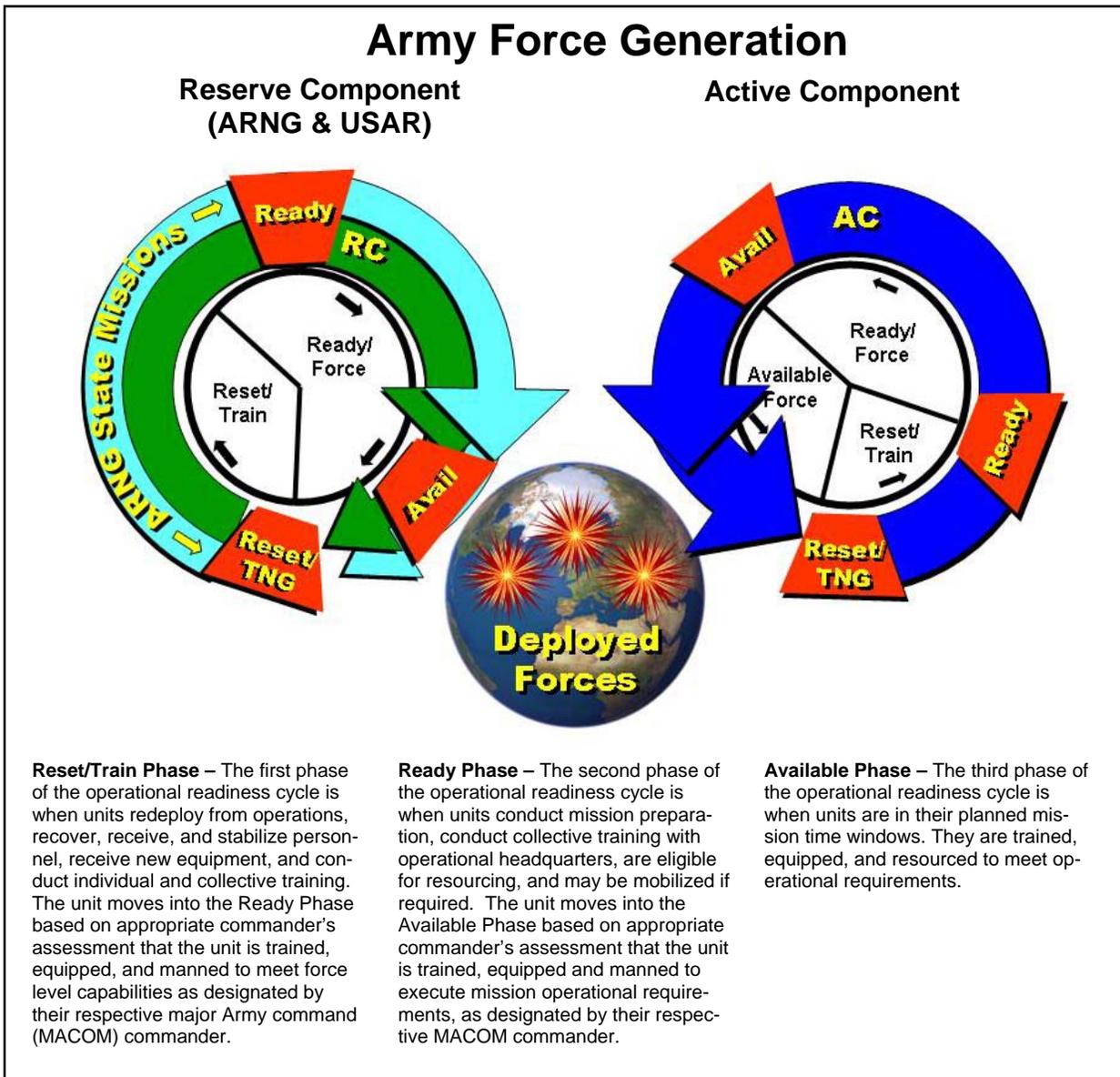
vided as we address the Signal Center's infrastructure and layout, courseware development and fielding, and training management systems.



ARFORGEN

ARFORGEN is a force management process that leverages modular unit designs and operational cycles. It provides a sustained deployment posture of operationally ready units in predictable patterns while retaining the capability to surge combat power for major combat operations. The necessary manning, equipping, resourcing, and training processes are synchronized to generate ready forces from all components. This enables the process to achieve a sustained or surge deployment capability to satisfy the requirements that regional combatant commanders will place on the Army.

The ARFORGEN process focuses on unit level readiness. Utility of the entire force is maximized through allocation of the correct mix of resources to requirements. The ARFORGEN tool implements transformation strategies to support the US Army.



LWN

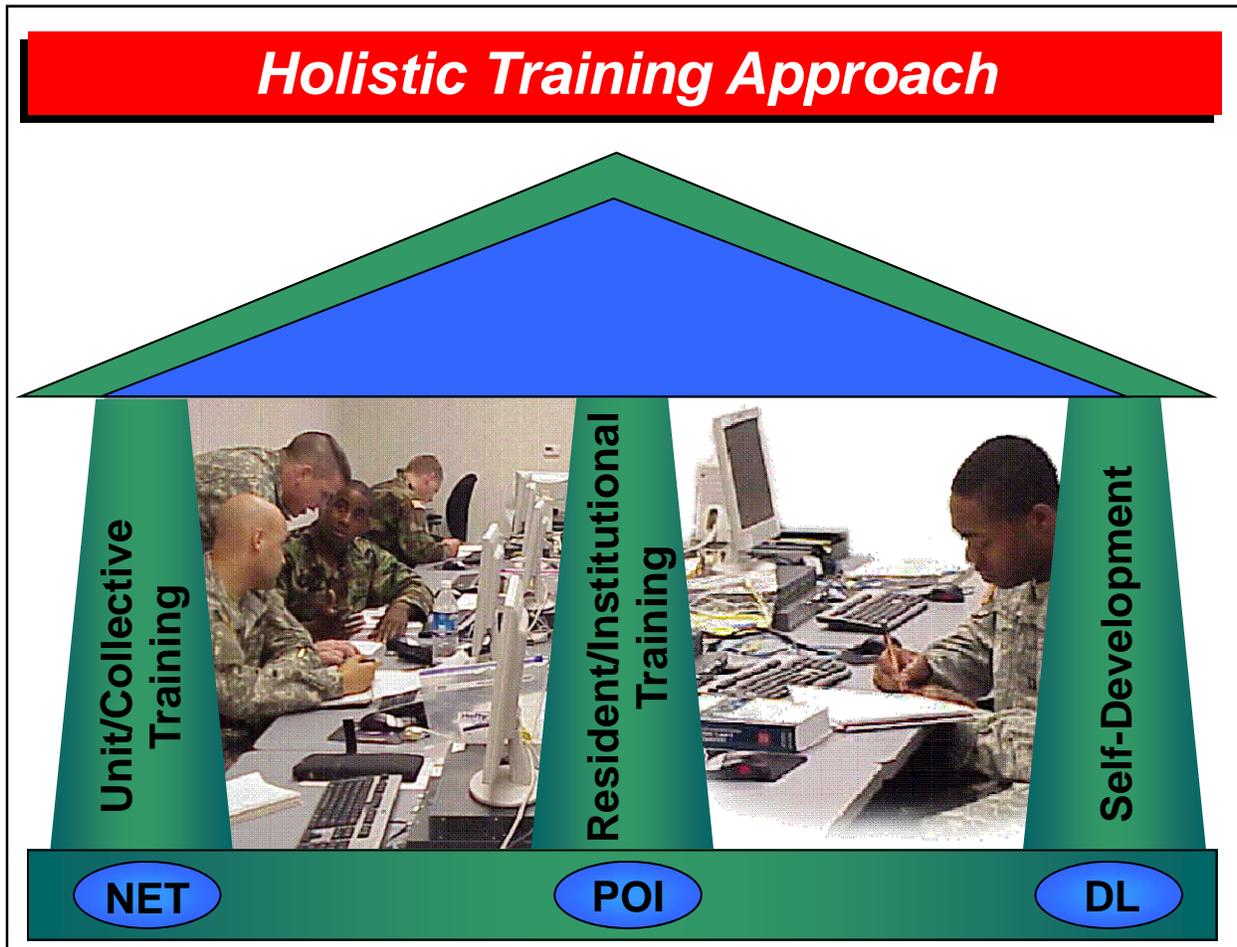
LandWarNet is the Army's portion of the Department of Defense's (DOD) Global Information Grid (GIG). LandWarNet is a combination of infrastructure and services that moves information through a seamless network. It enables the management of warfighting and business information. LandWarNet will enable voice, video, and data to the edge of the tactical formations - ultimately pushing these capabilities into our Army's Brigades, Battalions, and ultimately to our Soldiers. LandWarNet exists to enable the war to be fought through the delivery of battle command capabilities to current, future, and joint forces.

There are five major areas addressed in LWN:

- Network Applications
- Network Services
- Network Transport
- Virtual Simulations
- Information Assurance

The Signal Center supports LWN through the work done by the 15th Regimental Signal Brigade (RSB), Regimental Noncommissioned Officers Academy (RNCOA), Leader College for Information Technology (LCIT), and various staff sections. The joint training effort is reflected in the multiservice presence at the Signal Center. Relationships established with the Directorate of Information Management (DOIM) and other organizations on Fort Gordon are critical in establishing and maintaining connectivity to the GIG. A crucial part of the Signal Center's mission is to ensure there is a sufficient and trained signal force structure at all levels of command to enable Battle Command in joint and coalition environments.

The holistic training approach used at the Signal Center is strategic in providing support to LWN. This approach recognizes the interrelated roles that the unit, institution, and dL must play in making LWN a success.



SECTION 2. PROGRAM MANAGEMENT

The success of the Signal Center's dL Plan hinges on the supporting actions of multiple interdependent individuals and organizations. The roles and responsibilities that are delineated below highlight strategic management roles that must be performed to maintain a high level of functionality in the area of dL at Fort Gordon.

Roles and Responsibilities

Directorate of Training (DOT)

- Coordinate dL training development and initiatives with the Training and Doctrine Command (TRADOC), the Army's executive agent for training.
- Coordinate dL training requirements with the DA G-1 to ensure Army Training Requirements and Resources System (ATRRS) entries are made.
- Manage The Army Distributed Learning Plan (TADLP) resource expenditures in accordance with the TADLP Master Plan requirements and TRADOC Deputy Chief of Staff for Operations and Training (DCSOPS&T) guidance.
- Coordinate and support the development and implementation of all necessary interfaces among TADLP, personnel management systems, and training management systems.
- Establish contingency plans to conduct training should an equipment malfunction or site availability problem occur.
- Monitor the progress and status of students using dL resources.
- Coordinate with MACOMs for additional resource requirements to deliver dL courses, such as specialized training aids, manpower, and equipment.
- Ensure that the Structure and Manning Decision Review (SMDR) and the Training Resources Arbitration Panels (TRAPs) identify all resource requirements for dL course delivery.
- Oversee life-cycle management for dL products and resources.
- Develop dL policy and governance.
- Use the Army Learning Management System (ALMS) to:

- Coordinate and schedule the delivery of dL training through ATRRS between the originating sources and receiving locations.
- Provide skills-gap analysis associated with tasks and individual training plans (ITPs).
- Manage students, as necessary, within dL phases, modules, and lessons.
- Manage, assign, and deliver learning resources required to support dL when and where needed.

- Provide oversight of the digital training facilities (DTFs) and Classroom XXI facilities.
- Provide oversight of the Lifelong Learning Center (LLC).
- Coordinate the design and development of dL products and services.
- Encourage and support Soldiers', Leaders', and Civilians' participation in lifelong learning and continuing education by using dL resources.
- Market dL training strategy.
- Design, implement, and conduct courses/workshops on subjects applicable to the present and future staff development needs of personnel involved in all aspects of dL training and training development.
- Liaison with the DOIM via implementation planning meetings and other communication means to share technical requirements, new Information technology (IT) requirements, and identify all voice and data network requirements.
- Act as the primary coordinating agent for the development and maintenance of the USASC&FG dL Plan.

DOIM

- Ensure all computer users have completed information assurance training/exam and background check before accessing the network.
- Disseminate information to users regarding information assurance and security when using dL products.
- Validate the purchase of IT equipment to ensure equipment meets network configuration standards.
- Ensure information assurance best business practices adhere to AR 25-1, AR 25-2, local web site policies, and local regulations.

Directorate of Plans Training Mobilization Security (DPTMS)

- Inform the U.S. Army Reserve (USAR), National Guard (NG), and other DOD agencies about dL facilities and resources available at Fort Gordon.

Office Chief of Signal (OCOS)

- Promote using dL resources throughout the Signal community.
- Distribute information about dL resources available to the Signal community.
- Encourage and support Soldiers' and Leaders' participation in lifelong learning and continuing education.

Concepts, Requirements, and Doctrine Division (CRDD)

- Address current and emerging Army developments that may require dL resources.
- Ensure that ICW, simulations, and dL needs are addressed throughout the life cycle of signal systems.
- Interface with DOT in addressing the development and management of dL products.

15th RSB, RNCOA, LCIT

- Ensure dL is integrated into USASC&FG resident, sustainment, and refresher training.
- Maximize usage of the ALMS to conduct and manage training.
- Maximize using the Distributed Learning System (DLS) resources to train and develop Soldiers, Leaders, and the Civilian workforce.
- Identify training needs necessary for staff to support dL and schedule training.
- Monitor the development of dL products to ensure that the process is consistent with TRADOC and USASC&FG guidance.
- Support using dL resources in the training of military and civilian staff.
- Encourage and support Soldiers, Leaders, and Civilians participation in lifelong learning and continuing education
- Monitor the progress and status of students using dL resources.
- Maximize using resources in the dL infrastructure wherever they are available.

Quality Assurance Office (QAO)

- Ensure commanders are fulfilling their responsibilities to support the dL Plan.
- Ensure quality controls relating to dL training, development, and training management are in place at the Signal Center and The Army School System (TASS) training battalions.

Education and Services Division (ESD), Directorate of Personnel and Community Activities

- Counsel Soldiers, Leaders, and Civilians on dL courses and educational programs.
- Provide information about tuition assistance for qualifying certificate and degree producing programs.

Commanders

- Ensure the time is available for Soldiers to complete DA-directed dL training and self-development training.
- Establish the dL facility as the Soldier's place of duty during dL training for DA-directed and quota-managed training. The dL facility is defined as any location where the capability exists for a Soldier to receive a dL course.
- Ensure Soldiers are available for dL training and have no command-directed conflicts that will interfere with their scheduled dL training for DA-directed and quota-managed training.
- Commanders will schedule dL training that supports collective training.
- Through the installation DPTMS, G-3, or schools, request dL training for qualified applicants through ATTRS to Human Resources Command (HRC) for skills linked to force readiness (for example, Noncommissioned Officer Education System (NCOES), additional skill identifier (ASI), and skill qualification identifier (SQI)).
- Monitor the progress and status of personnel using dL resources.
- Encourage and support Soldiers' and Leaders' participation in self-improvement and civilian education courses through dL.

Soldiers and DA Civilians

- Develop an awareness of dL resources that are available.
- Incorporate dL resources into professional development plans and lifelong learning goals.

- Participate in lifelong learning and continuing education by using dL resources.
- Soldiers and Civilians will accomplish self-development training on their own time unless otherwise directed by their commander.

Points of Contact for dL related matters

- DOT - (706) 791-6206
 - University of Information Technology (UIT) - (706) 791-7445
 - Training Management Division (TMD) - (706) 791-2915
 - Staff and Faculty Development Branch (SFDB) - (706) 791-6213
- CRDD - (706)791-6223
- QAO - (706) 791-1073
- DOIM - (706) 791-5493
- DPTMS - (706) 791-2634
- ESD - (706) 791-2000

Note: The above offices can be accessed via the Defense Switched Network (DSN) 780-xxxx.

Distributed learning resources can be accessed via:

- Army's e-Learning Program
- LWN eUniversity
- Army Knowledge Online (AKO)
- Battle Command Knowledge System
- GoArmyEd
- Education Center
- The Army Correspondence Course Program (ACCP)
- Signal Education Program

Note: See Section 10: References for universal resource locators (URLs).

An expected outcome of this plan is that Soldiers and Civilians will use it to assist them in integrating dL resources into their professional development plans and execution of lifelong learning goals.

This outcome will be realized through USASC&FG:

- Creating an atmosphere that recognizes the value of dL.

- Ensuring availability of resources to meet education and training requirements.
- Ensuring interoperability of all dL courseware and hardware across the force.
- Capitalizing on advancements in technology and research.
- Improving information and training efficiencies where practical and cost effective.

SECTION 3. FORT GORDON'S DISTRIBUTED LEARNING INFRASTRUCTURE AND LAYOUT

The Army's approach to dL is accomplished through the Distributed Learning System (DLS). This is a modernized IT infrastructure that provides access to individual and collective training, Army Modernization Training (AMT), and self-development courses to Soldiers and units, anywhere, anytime using multiple means and technologies. The DLS uses IT to streamline training processes, automate training management functions, and enable training delivery by electronic means. The DLS provides access to training for the Active Army, the USAR, the Army NG, and DA civilians. The DLS infrastructure at Fort Gordon consists of the following:

DTFs

DTFs are an integral part of the TADLP. DTFs provide the Active Army, Reservists, the NG, and DOD civilians with an on-base location to access web-based, job related, and professional courses away from the workplace and distractions of home. DTFs are primarily a "receive" location for nonresident training. They provide area support to students within a fifty mile radius. DTFs include networked computers that support CD-ROM based training, video teletraining equipment to support room-based courseware transmission from remote sites, computer servers to support the network, and provide a high-speed gateway from the classroom to Army intranets and the Internet. Functional capabilities include a student learning space consisting of electronic messaging, DTF scheduling, and collaboration tools.

The DOT manages the three Fort Gordon DTFs. The DTF administrator can be reached at 791-7159 or DSN 780-7159. Normal hours of operation are Monday – Friday, 0800 – 1700. A 24-hour notice is required to reserve a DTF.



DTF #1 - Greely Hall, Building 29809, Room 130	791-7159
DTF #2 - Saltzman Hall, Building 29811, Room 115	791-7135
DTF #3 - Allen Hall, Building 29813, Room 132	791-3156

Classroom XXI (CRXXI) Facilities

CRXXI facilities are an integral part of resident training. CRXXI creates a modern training environment for the Signal Center's resident training base. It provides modern training efficiencies while maintaining training effectiveness. The classrooms can be accessed from a variety of locations. Classrooms are designed for ease of instructor use. The classrooms can accommodate instructor-led training, instructor-facilitated training, and self-paced student training. TRADOC controls the equipment and layout of the facilities. TRADOC also provides the funding for CRXXI. The DOT manages the CRXXI facilities. The CRXXI system administrator can be reached at 791-7846 or DSN 780-7846. Normal hours of operation are Monday - Friday, 0800 - 1700.



CRXXI #1 - Greely Hall, Building 29809, Room 111/113	791-7179
CRXXI #2 - Cobb Hall, Building 25801, Room 112	791-6416
CRXXI #3 - Brant Hall, Building 25810, Room 103	791-0143
CRXXI #4 - Vincent Hall, Building 21401, Room 95	791-5484
CRXXI #5 - Fisher Hall, Building 29816, Room 102/106	791-2717

<p>Projected CRXXI</p> <ul style="list-style-type: none"> • Hazen Hall, Building 29815, Room 200/212 • Johnston Hall, Building 29818, Room 203/ 205 • Stansell Hall, Building 29819, Room 118/119 <p>Site surveys are underway at this time on these locations. Positive results from the site surveys and availability of resources will impact the start of construction. Projected time-frame for completion is FY09.</p>
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The CRXXI classrooms have the following capabilities and equipment:

- Can accommodate 18-24 students
- Fully networked multimedia classrooms
- Full duplex VTT
- Self-paced, individualized training
- Internet access
- Printer/fax
- Handicap access
- Student computers are networked

CRXXI Digital Training Access Center (DTAC)

The Signal Center's CRXXI DTAC is a repository of multimedia resources. The DTAC is supported by a server farm comprised of database, applica-

tion, multicast, and video servers. This enables each DTAC to manage a local repository of information. The CRXXI DTAC stores and transmits courseware. Additionally, it delivers full-motion digital training and video to the desktop. DTAC allows each student in a classroom access to the same or different courseware. Each TRADOC post maintains its own repository of information specific to its subject matter expertise. The enterprise management software wraps this information around a full suite of collaboration tools, which provide the free flow of content and knowledge sharing to learners.

The Signal Center's CRXXI DTAC is located in Greely Hall, Room 213.

The chart below reflects the differences between the capabilities of the DTF and CRXXI facilities.

DTF versus CRXXI Capabilities

FUNCTIONS	DTF	CLASSROOM XXI
Transmit/receive VTT	X	X
Provide classroom audio & VTT sound	X	X
Display 3D objects	X	X
Play interactive multimedia courseware	X	X
Provide access to worldwide information	X	X
Provide network printer, fax and scanner	X	X
Provide instructor development tools		X
Provide collaborative computing (white boarding, file sharing, chat between instructor and students)		X
Provide full-motion, digital video to each desktop		X

Lifelong Learning Center (LLC)

The Signal Center's LLC is located at Fort Gordon. The LLC supports the LWN Internet portal for all Soldiers, Leaders, and DA Civilians to access proponent training and educational content. The LLC provides training and educational content, courses, courseware, collaboration, information, and discussions, all related to the professional needs of the user. The Blackboard learning management system (LMS) provides a way for the LLC and instructors to monitor, manage, and provide relevant training content to Soldiers throughout their career. The LLC has a digital library for creation, storage and delivery of all standardized proponent training and education content. The LLC is the Signal Center's point of integration with the Army Training Information System (ATIS).

Transforming the Training Culture



Institution
Unit
Soldier

“Education must be thought of not as a deviation from a soldier’s duty, but a central and continuing focus.”

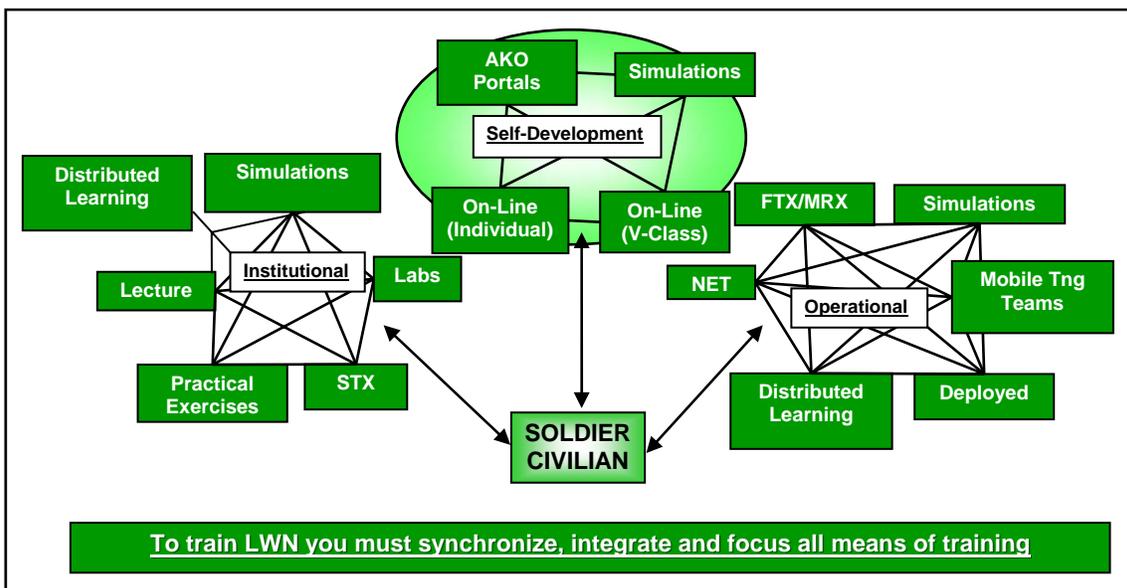
Former CJCS
GEN Shelton

LandWarNet eUniversity (LWN eU)

LWN eU continuously trains and educates Soldiers and Leaders from the classroom to the battlefield by integrating training between multiple enabling organizations in order to provide network enabled Battle Command in support of Leader Centric operations. It consists of the resident school at the Signal Center, satellite resident training on the network at other schools and centers, training support provided to the warfighters at Battle Command Training Centers, the Network Service Center-Training, and LWN eU Signal. LWN

eU supports training and education during all phases of the ARFORGEN cycle by providing continuous access to training materials.

LandWarNet eUniversity is the self-development Internet portal for Soldiers, Leaders, and Civilians to access training, training support materials, simulations, reference material, forums, news, and information. LWN eU links to other proponent portals and web sites that provide relevant LWN content for applications, services, and transport. LWN eU is an enabler and component of the overarching LWN University.



LWN eU Signal

LWN eU Signal is the Signal Center's portal of the LWN eU. This is the Signal Center's primary means to provide lifelong learning opportunities to the force, other proponents, and services who own part of the network. It provides access to resources such as:

- Forums
- Downloads (ICW, computer-based training (CBT), simulations)
- Means to share news with the online community
- Resident and nonresident Signal instruction available via Blackboard
- Resident training end of course critiques
- Virtual campus end of course critiques
- Frequently asked questions (FAQ)
- Members list of online community
- Search feature
- LWN eU access
- AKO access
- Ability to share news with the Signal community
- Ability to setup personal page through My Account Tab

Deployed Digital Training Campus (DDTC)

The DDTC is a portable digital network that can be set up anywhere and has both satellite connectivity and terrestrial connectivity that provides access to a whole host of dL content. The DDTC is a mobile, networked system of notebook computers, a server, printer, and equipment to transfer digital information to and from

satellites. It will principally be used to train Soldiers on foreign soil or remote areas that are not accessible to the DTFs.

DDTCs will also be used to mitigate training demands and equipment shortages brought about by surge conditions on Army installations. Two DDTCs will be built for each Division in the Army and ten DDTCs will be built for surge support. The surge support systems will be maintained and deployed by TRADOC.

VTT Networks

VTT consists of two networks:

- Teletraining Network (TNET)
- Satellite Education Network (SEN)

Additional information regarding VTT can be found at <http://www.atsc.army.mil/itsd/vtt/vtthome.asp>

The systems that comprise the USASC&FG dL infrastructure support the local training needs of:

- 15th RSB (AIT)
- RNCOA (NCOES)
- LCIT (Leaders Training)
- Tenant units
- RC
- NG
- Civilian workforce

The dL infrastructure supporting the USASC&FG is critical to the support and success of dL across a wide spectrum of users that extends beyond Fort Gordon.

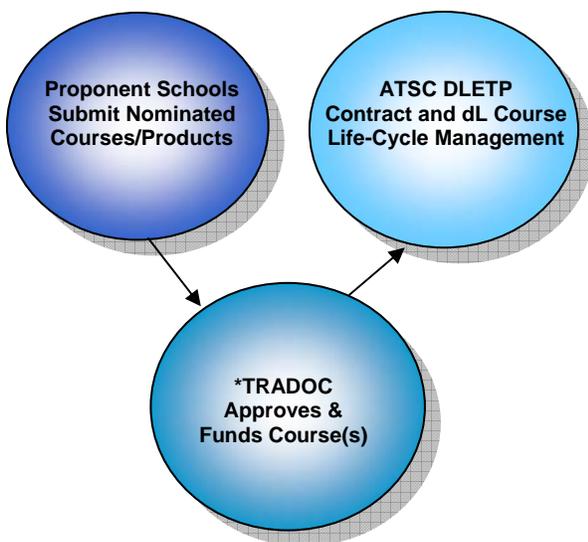
TNET	SEN
<p><i>A global collaborative communications network providing distance learning education and training needs anytime/anywhere.</i></p> <ul style="list-style-type: none"> • 24/7 CONUS/OCONUS communication capability via IP, ISDN, DSN, and satellite links • Automated scheduling • Connectivity to other Federal, state, and commercial video networks • Capable of providing continuous presence • Gateway services for IP and ISDN <p><i>Note: Used by the Joint Language Center located at Building 21720, 23rd Street, Fort Gordon GA 30905 (706) 791-7620</i></p>	<p><i>A one-way video, two-way audio, satellite broadcast network.</i></p> <ul style="list-style-type: none"> • Broadcasts high-quality, full motion digital and analog signals • Ku and C band broadcast can be received at any CONUS location • Supports logistics and acquisition courses taught by the Army Logistics Management College and the Defense Logistics Agency • Provides uplink broadcast support for other government agencies • Broadcasts to: <ul style="list-style-type: none"> – All dL facilities with VTT capability – All Government Education Training Network and Governmental Alliance for Training and Education sites

SECTION 4. COURSEWARE DEVELOPMENT AND FIELDING

Process Overview

Courseware development and fielding is a process of continuous coordination between the Signal Center and TRADOC. Key focus areas in courseware development and fielding are:

- Signal Center dL courseware nomination and prioritization
- TRADOC approval and funding
- Contract development
- IT specifications and issue resolution
- Life-cycle management of dL courseware and simulations
- Courseware/simulations validation & testing
- Sharable Content Object Reference Model (SCORM) conformance



Note: * Local installations may fund courseware products through monetary sources other than TRADOC. However, the permission to develop the product, fielding, and management of any Army dL product will be regulated by TRADOC.

Obligations of the Signal Center in Courseware Development and Fielding

- Select and prioritize courses/products for submission to TRADOC.

- Develop a storyboard for the proposed dL courseware and interactive multimedia content to generate a concept of what is desired in the final product.
- The training developers are required to re-research the existence and availability of all dL products that may be used or incorporated into the final product. Equipment simulators for major end items taught in the course and other related IMI products that teach the same tasks, skills, or knowledge should be re-researched.
- Acquire senior leadership buy-in to dL strategy and commitment to properly manage courseware development.
- Subject Matter Experts (SMEs) and training developers must be available for development of dL courseware and simulations from the proposal phase through product validation and acceptance.
- Complete task analysis and analysis and learning analysis for the proposed IMI product.
- Implement dL into the overall training strategy to reduce instruction time for Soldiers and Leaders in the resident school training environment and to provide more standardized, high-quality training resources to RC units.
- Send the Training Requirements Analysis System (TRAS) submission to the Training Operations Management Activity (TOMA), TRADOC, via the TRAS Branch, TMD, DOT, for new courseware that will replace legacy courseware or be offered as a stand-alone course.
- Submit Programs of Instruction (POIs) with dL supplemental questions via Automated Systems Approach to Training (ASAT) database.
- Work with the Army Training Support Center (ATSC) Contracting Officers Representative (COR), Signal Center's Contracting Officer's Technical Representative (COTR), and training developers to:
 - Complete the correct Distributed Learning Education and Training Products (DLETP) delivery order (DO) template.
 - Provide government furnished information (GFI) certification.

- Process the DO and other contract vehicles through the local Contract Requirement Review (CRR) process as required.
- Provide the proper target audience for the education validation of contracted courseware prior to courseware fielding.
- Submit nominations for courseware updates or request for deletion of obsolete courseware as required.

Once TRADOC approves and funds dL courses/products they will migrate to the dL Products Development Schedule. It is extremely important that the distributed learning courses/products submitted by the Signal Center and nominated for funding by TRADOC are justified due to the high expenditures of time and money.

The courseware prioritization process takes place annually to determine the order of precedence for the development schedule. This meeting is hosted by the ATSC and produces the dL Products Development Schedule for the current fiscal year. The USASC&FG representative that attends the annual meeting is the Chief of the Distance Education Branch in UIT, DOT.

The ATSC plays a central role in IMI courseware development and fielding. They are the primary contact at TRADOC for dL and IMI support. ATSC provides dL and IMI support is provided by:

- Developing and updating standards, policy, guidance, and contract specifications relative to IMI, dL, and new training technologies.
- Providing support and assistance to Proponent schools, TRADOC activities, and dL contractors in the area of IMI, LMSs, dL, and new training technologies.
- Maintaining liaison and participation with TRADOC, DA, and DOD agencies in formulating and updating standards, policy, guidance, and contract specifications relative to IMI, dL and new training technologies.

The ATSC web site is an important source for information and knowledge about courseware development and fielding.

The ATSC web site provides dL and IMI support for:

- dL contracts
- Policy and guidance
- Standards and specifications
- Tools, utilities, and templates
- Training and education

Note: The dL and IMI resources are located on the ATSC web site at: <http://www.atsc.army.mil/itsd/imi/>

The DO

A DO will be submitted upon TRADOC's approval of a nomination. Approval of a nomination does not always mean that the nomination is funded. The funding of a nomination depends on a number of factors and is often programmed in a fiscal year other than the year a DO is developed.

The DO template you use to develop your DO depends on the work that must be performed. ATSC should be consulted for the correct template to use. The structure of templates is subject to change from time to time. The following templates are currently being used:

- **New/Redesign DO Template.** Use this template for IMI design and development for IMI courseware that has never been developed or **all** lessons that have been previously developed require at least a 40% revision.
- **Maintenance DO Template.** Use this template for an update of content, sequencing, and/or update of the technology. This template can also be used for a combination of revisions and new development. This template should **NOT** be used if all lessons require more than a 40% revision.

Pre-award Submission Documentation

The documents below must be submitted by the Signal Center's point of contact (POC) to Headquarters TRADOC and/or ATSC to get dL courses funded and awarded for contract. This means that the respective course manager of a nominated course must be proactive in producing the required documents.

The following documentation must be submitted to HQ TRADOC:

- CAD and supplemental information (TOMA - ATTN: ATTG-MP). Click for TRAS interim guidance, transmittal memo, and supplemental Information Express Supplement.
- GFI certification letter (TDADD - ATTG-CF)
- GFI checklist (TDADD - ATTG-CF)
- Waiver if deviated from DO template requirements (TDADD - ATIC-ICD)

The following documentation must be submitted to ATSC:

- DO using correct template (contracting officer representative - ATIC-ICD)
- GFI certification letter (copy) (courseware manager - ATIC-ICM)
- GFI checklist (copy) (courseware manager - ATIC-ICM)
- CAD and supplemental information (copy) (courseware manager - ATIC-ICM)
- DD Form 2658 (technical media support - ATIC-IST)
- Justification for other collaboration product (courseware manager - ATIC-ICM)

The forms and templates that are referred to can be found at the following URL on the ATSC website:

- http://www.atsc.army.mil/itsd/imi/pre_award.asp

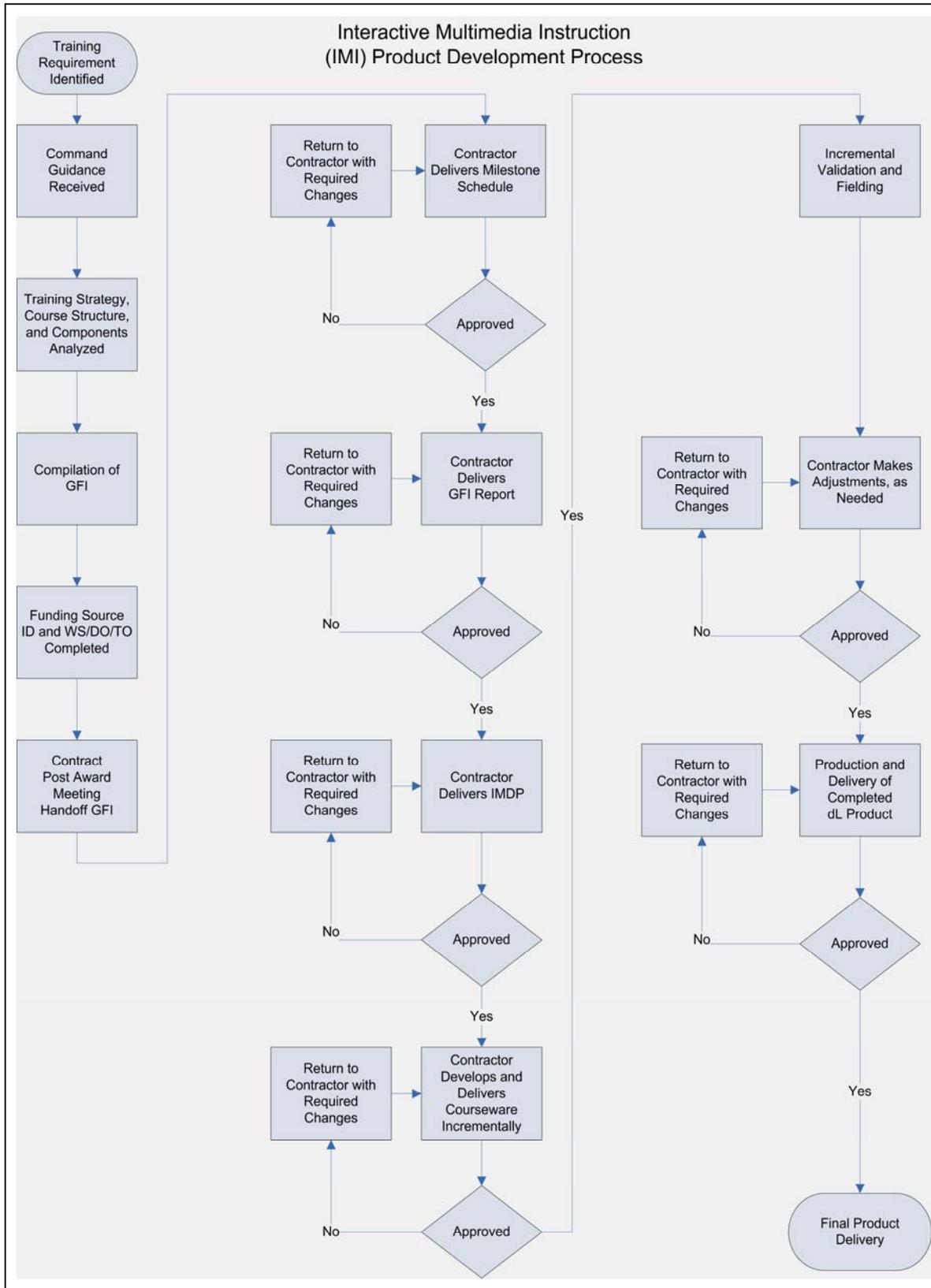
Signal Center Oversight for IMI Products

Oversight for IMI products on the Signal Center's dL Products Development Schedule is shared by the Chief, Distance Education Branch and the Chief, Simulations Branch in DOT. These individuals are the TRADOC POCs at the Signal Center.

- **ICW** - Oversight of ICW is the responsibility of the Distance Education Branch.
- **Simulators** - Oversight of simulators is the responsibility of the Simulations Branch.

Contact information is as follows:

- Chief/Distance Education Branch:
(706) 791-2303 / DSN 780-2303
- Chief/Simulations Branch:
(706) 791-8681 / DSN 780-8681



TRADOC Roles and Guidance for Courseware Nomination and Development

- The TRADOC Program Integration Officer for the Army Distributed Learning Program (TPIO-TADLP) is the Army's centralized manager and integrator for the TADLP. The TPIO-TADLP is responsible for the implementation of the TADLP and the ATIS within all Army Schools and training environments.
- The ATSC plays a central role in IMI courseware development and fielding. They are the primary contact at TRADOC for dL and IMI support.
- The TPIO must approve all proposed expenditures, regardless of cost or source of funding, for the development of dL courseware and interactive multimedia content.
- Courseware proponents will document planned dL development using approval processes referenced in TRADOC Pamphlet 350-70-12, Distributed Learning - Managing Courseware Production and Implementation.
- Courseware proponents will follow development requirements described in the template for DLETP DO for new IMI courseware and the template for DLETP DO for maintenance/redesign of IMI courseware.
- Resource managers will ensure they have received TPIO-TADLP approval prior to certifying funds for development of any and all dL courseware or interactive multimedia content.
- Army contracting agencies will ensure TPIO-TADLP approval before proceeding to contract award.

Note: TRADOC's guidance referenced in the 30 November 2006, Approval Process for dL Courseware Development memorandum can be found in Section 9.

IMI Terms, Definitions and Concepts Used in the Design and Development of Courseware

SCORM

The development and maintenance of IMI courseware eventually will involve a discussion about SCORM and issues about compliance and

conformance. SCORM is a collection of standards and specifications adapted from multiple sources to provide a comprehensive suite of e-learning capabilities that enable interoperability, accessibility, and reusability of web-based learning content. The Advanced Distributed Learning (ADL) Initiative under the sponsorship of the Office of the Under Secretary of Defense for Personnel and Readiness (OUSD P&R) oversees SCORM efforts across the DOD.

SCORM Conformance

- Fosters creation of reusable learning content as "instructional objects" within a common technical framework.
- Describes the technical framework by providing a harmonized set of guidelines, specifications and standards.
- Allows different LMS to interface with content in a carefully defined way.
- Conformance content will work with every conformant LMS.

Conditions before SCORM

- Courses couldn't move from one LMS to another.
- Content pieces couldn't be reused across different courses.
- Reusable content for branching, remediation, and other tailored learning strategies couldn't be sequenced.
- Learning content libraries or media repositories across different LMS environments couldn't be searched.

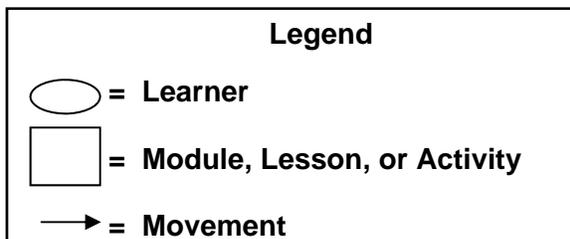
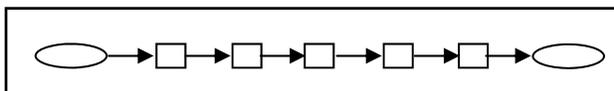
Additional information regarding SCORM can be found on the Advanced Distributed Learning web site at: <http://www.adlnet.gov/index.cfm>

All dL products that are currently developed for the LWN eU and LWN eU Signal portals must be SCORM compliant. To have IMI products tested for SCORM compliance contact the Signal Center's LLC at 791-2448 and ask for a technician to test the product.

Distributed Learning Courseware Levels of Interactivity

Level I – Low Interaction (Student is receiver of the information)

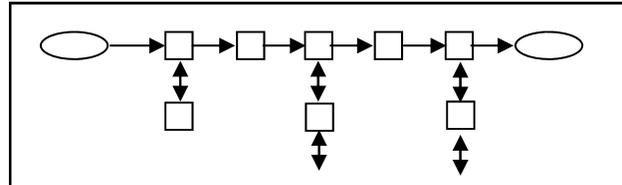
This is the lowest level of IMI development. It is normally a knowledge, or familiarization, lesson, provided in a linear format. Level I is primarily used for introducing an idea or concept. The user has little or no control over the sequence and timed events of the lesson material. Minimal interactivity is provided by selective screen icons and inserted into the lesson through typical input/output peripherals and programming protocols. This may include simple developed graphics clip art, video, and audio segments. Make use of typical input/output peripherals throughout the lesson. An example of this type of product may also contain pop-ups and hyperlinks to Web sites, materials, and other information interspersed between the text and graphic presentations.



Level II – Medium Interaction (Student responds to cues)

Level II requires the recall of more information than Level I and allows the student more control of the lesson. It uses multiple-input objects on the screen to increase the interactivity of the lesson; multiple-input objects cause the building of branching structures. The student must respond using lesson objective cues that cause interaction with the screen information. Level II IMI products use simple branching for other instruction, which permits the student to veer from the main instructional path, to seek additional information about a subject. However, the student

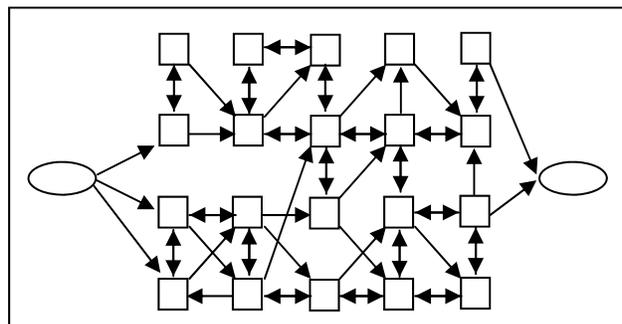
ultimately returns to the departure point. Remediation is used extensively, to reinforce the learning objectives. Remediation causes repeating of a particular section of the lesson in the form of a 'no go' situation by use of a branching action called a 'loop.'



Level III – Complex Participation (Variety of techniques used for responses)

Level III involves the recall of more complex information as compared to Levels I and II and allows the user an increased level of control over the lesson scenario, through peripherals such as light pen, touch screen, track ball, or mouse. Prompting is much reduced; less prompting allows the student a perceived increased level of control over the lesson. Video, graphics, or a combination of both, is presented, simulating the operation of a system, subsystem, or equipment to the user. A good example of this type of product is desktop software training requiring the learner to perform as though using the program.

Multiple software branches may extend two to three levels and rapid response is provided to support remediation. Emulations and simulations are an integral part of this presentation, and may also include complex developed graphics, and/or clip art, and video and audio clips. The IMI product is only vaguely linear—the student moving from a start point to an end point; but because of the multiple branching features, the student is able to progress through the IMI using any of multiple paths.



Level IV – Real-Time Participation (Life-like sets of cues and responses)

The learner is directly involved in a real-time, life-like set of complex cues and responses. This involves engaging the learner in a simulation that mirrors the work situation with stimuli-and-response coordinated to the actual environment. This IMI level involves more in-depth recall of a larger amount of information compared to lower levels and allows the user an increased level of control over the lesson.

Every possible subtask is analyzed and presented with full, on-screen interaction, similar to the approach used in aircraft simulator technology. The lesson material is extremely complex, and involves more frequent use of peripherals, to affect the transfer of learning. This level normally supports certification, recertification, or qualification requirements. Complicated operation and maintenance procedures are normally practiced with Level 4, and involve all of the elements of Levels I, II, and III, plus a high degree of interactivity. Extensive branching utilizing four or more levels and higher levels of sophistication—short of artificial intelligence are used in Level IV IMI.

Students prove they can perform specific tasks, errors are compounded, training prompts do not occur, and feedback occurs after the student passes or fails. Remediation only occurs at the end of the lesson.

- **Instructional Flow:** The instructional flow is essentially one-way-in the same direction as Level III. The IMI does no prompting; instead, the IMI presents pseudo simulation information that the student must interpret and analyze, to demonstrate conclusions that correspond to lesson objective cues. Student responses are tracked for IMI branching decisions and scoring.
- **Training Taxonomy.** Cognitive domain, using analysis. Students are able to analyze the underlying structure of a system, subsystem, or component—troubleshooting a piece of equipment by using logical deduction. Students recognize logical fallacies in reasoning.
- **Cues for Lesson Objectives.** Analyze, break down, compare, contrast, diagram, deconstruct, deduce, differentiate, discriminate, distinguish, identify, infer, relate, separate, and uncover.

Key distinctions of Level IV IMI products are:

- Real-time actions
- Life-like sets of cues and responses
- No remediation during the lesson
- No prompting
- Extensive branching occurs using four or more levels
- Higher levels of sophistication—short of artificial intelligence

Synchronous Learning versus Asynchronous Learning

Synchronous Learning - Instruction that is led by a facilitator in real time. Examples of synchronous interactions include traditional trainer-led classrooms, conference calls, instant-messengers, video conferences, whiteboard sessions, and synchronous online classrooms/classroom software.

Asynchronous Learning - “Asynchronous” refers to instruction that is not constrained by geography or time. Everyone involved in an asynchronous activity performs his or her part on his or her own time.

SECTION 5. TRAINING MANAGEMENT SYSTEMS

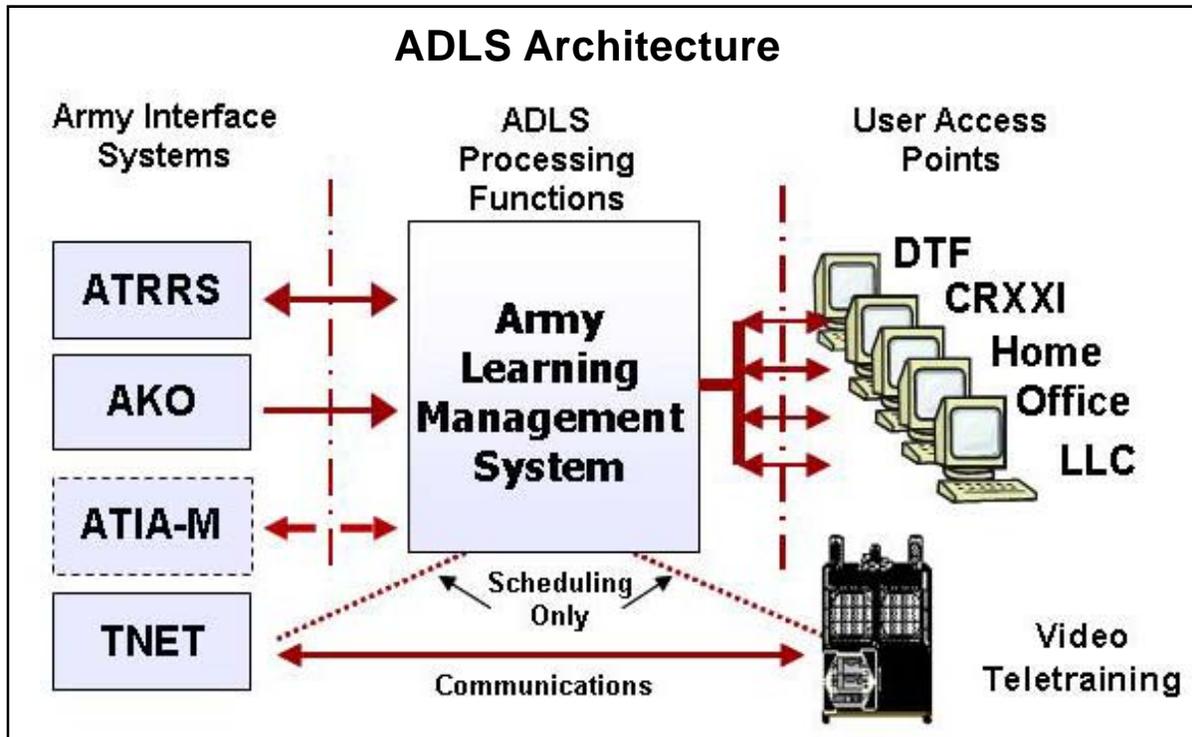
Army Distributed Learning System (ADLS)

ADLS is the Army's technology enterprise project for delivering and managing dL to Soldiers, Leaders, and Civilians around the globe. Using the latest in technology, Soldiers experience standardized, mission-critical training needed to meet readiness requirements. ADLS provides the capability to train Soldiers at the right time and place in the most expeditious and cost-effective manner possible benefiting the Army, units, and Soldiers alike.

The functional requirements for ADLS are managed by Army TRADOC. MACOM commanders coordinate ADLS implementation with the TPIO and headquarters TRADOC POC.

The ALMS consists of the following components:

- DTFs
- CRXXI
- Enterprise Management Center (EMC)
- DDTC
- Army e-learning



DTFs

DTFs provide Soldiers with a location on the installation to access web-based, job related, and professional courses away from the workplace and distractions of home. DTFs have networked computers that support CD-ROM based training, VTT equipment to support room based courseware transmission from remote sites and computer servers to support the network. It also provides high-speed gateway from the classroom to Army intranets and the Internet. Functional capabilities include a student learning space consisting of electronic messaging, DTF scheduling, and collaboration tools.

CRXXI

Classroom XXI is a TRADOC effort to modernize resident school classrooms to deliver dL anytime and anywhere. Classroom control panels allow instructors to operate equipment, electronically group students, and control and assist students at the desktop. The instructor and students have

multimedia computer workstations. This gives the capability to access IMI courseware designed for student interaction and participation, from the DTAC. Fully-networked classrooms provide internet access to worldwide sources of information as well as deliver multimedia to the user's desktop. The classrooms have a data/video projection system with audio for display of instructor-led training and video teletraining capability.

EMC

The PMO ADLS manages all of the DTFs from the EMC located at Fort Eustis, VA. The EMC networks the DTFs and provides access to web-based courseware. The EMC also implements applications which enable the remote execution of account, fault, security, configuration, and performance management of the DLS enterprise. The EMC can release virus updates, perform operating system updates, carry out bandwidth analysis, and give each student individual user IDs and passwords.

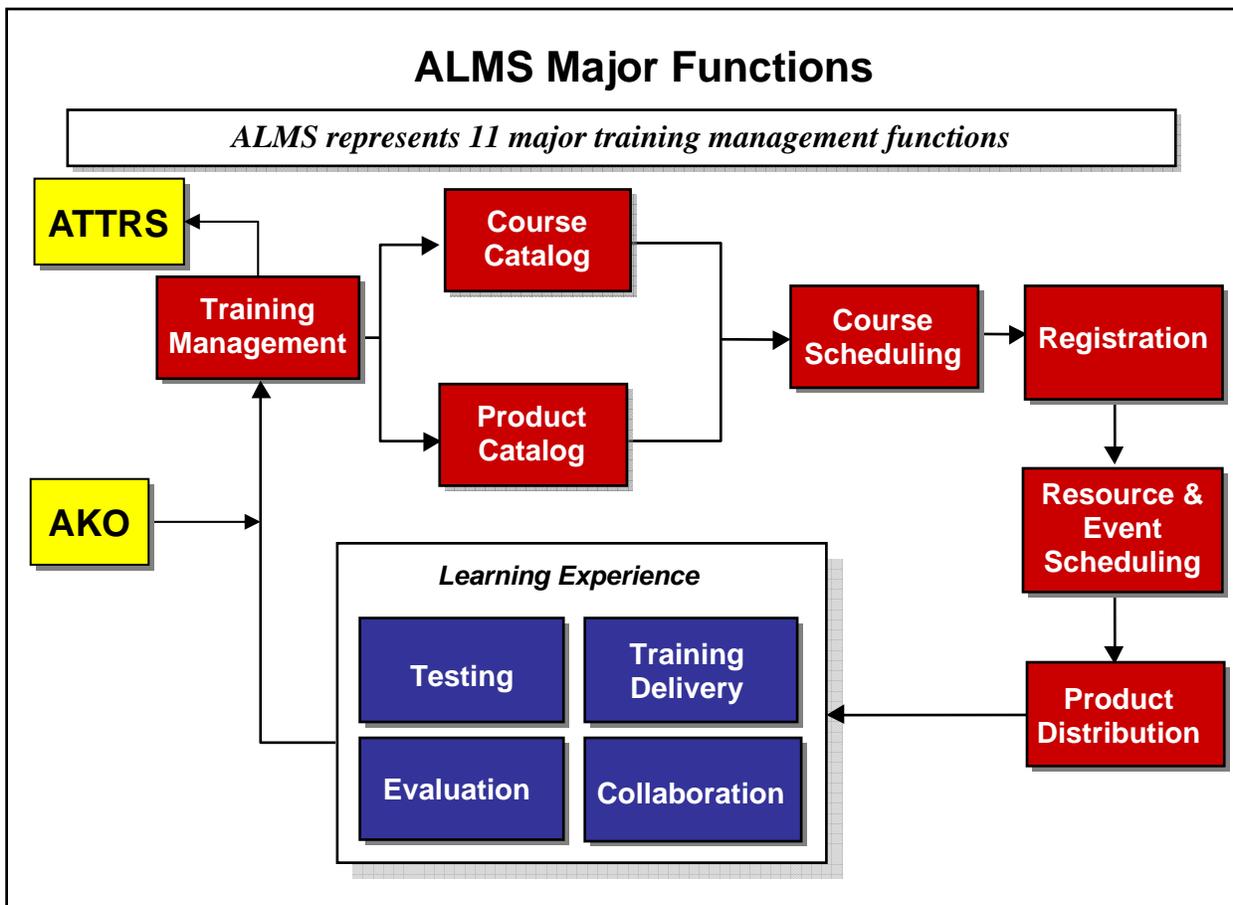
ALMS

The central training management system for Army learning is the ALMS. It is a web-based information system that delivers training to Soldiers, manages training information, provides training collaboration, scheduling, and career planning capabilities in both resident and nonresident training environments. Additionally, the ALMS will assist Army trainers and training managers in conducting and managing the training of Soldiers, Leaders, and Civilians throughout their careers. Soldiers, Leaders, and Civilians will be able to meet their dL needs 24/7.

The ALMS' key functions include:

- Registering and enrolling students.
- Monitoring testing and student progress.
- Distributing, delivering, storing, and presenting education and training products.
- Maintaining training and education records.
- Student and instructor collaborative capability
- Collecting and storing feedback and evaluations.
- Maintaining a database of education and training products and resources.

Visit the Army LMS via AKO at www.us.army.mil, My Training.



Army e-Learning

The latest component of ADLS is Army e-Learning. This may also be referred to as Skill Soft. The Army e-Learning Program provides free training for every Active Army, NG, Reservist, ROTC Cadet and DA Civilian with access to over 2,600 web-based IT, business, leadership, and personal development courses. These courses

are accessible 24 hours a day from anywhere using an Internet connection. Army e-Learning benefits include: opportunities for enlisted personnel promotion points, over 40 certification programs, such as MCSE, A+, CISSP, Cisco, Oracle, and more with personal mentoring, continuous learning points for the civilian acquisition workforce, and some college course accreditation.

Blackboard Content Management System (BCMS)

The Blackboard content management system benefits the USASC&FG community by building upon existing knowledge and resources, as well as creating an Internet accessible repository that enables collaboration and content sharing. The BCMS is the backbone of the Lifelong Learning Center (LLC).

Blackboard is a software program installed on a web server that helps instructors and training developers put courses or course materials online. Blackboard also provides administrative tools that enable instructors to communicate with students, have online class discussions, create online quizzes, and manage grades.

Access BCMS via: <https://train.gordon.army.mil/>

Battle Command Knowledge System (BCKS)

Battle Command Knowledge System supports the online generation, application, management, and exploitation of Army knowledge to foster collaboration among Soldiers and Units in order to share expertise and experience; facilitate leader development and intuitive decision making; and support the development of organizations and teams.

BCKS objectives:

- Enhance battle command
- Enhance professional education
- Facilitate exchange of knowledge
- Foster leader development
- Support doctrine development
- Support lessons learned

The BCKS offers a variety of structured professional forums (SPFs), the Warrior Knowledge Base Repository, Knowledge Management (KM) training, and other items of interest.

The BCKS web site is <https://bcks.army.mil>. You can use your AKO user name and password or your Common Access Card (CAC) to access the site. BCKS can also be accessed from the link on AKO.

The Signal Center's BCKS POC can be contacted at (706) 791-8670.

Army Training Requirements and Resources System (ATRRS)

The Army Training Requirements and Resources System is the DA Management Information System of record for managing student input to training. The online system integrates manpower requirements for individual training with the process by which the training base is resourced and training programs are executed. This automation support tool establishes training requirements, determines training programs, manages class schedules, allocates class quotas, makes seat reservations, and records student attendance. It supports numerous DA processes to include the SMDR. The product of the SMDR is the Army Program for Individual Training (ARPRINT), the mission and resourcing document for the training base.

ATRRS supports the Training Requirements Division of the Office of the Army G-1 in its Armywide mission of integrating all phases of input to training management, during peacetime and mobilization. The system supports the planning, programming, budgeting, and program execution phases of the training process and is utilized by the agencies responsible for those phases.

ATRRS is the central authoritative source for all data and statistics that impact total Army input to training. ATRRS provides critical support in meeting these three primary objectives:

- Centralization of training requirements and resources data
- Management of input to training
- Evaluation of program execution

ATRRS occupies a key position in the overall Department of the Army automation architecture because it integrates major aspects of manpower, personnel, training, and budget planning in peacetime and mobilization for the total Army. It interfaces with a variety of Army information and decision support systems as well as those for the other uniformed services. ATRRS also tracks the completion of a variety of Army Distributed Learning courses.

You can access the following ATRRS resources:

- ATRRS Homepage
<https://www.atrrs.army.mil/>
- ATRRS Online Course Catalog
<https://www.atrrs.army.mil/atrrscc/>
- ATRRS Self Development Courses
<https://www.atrrs.army.mil/selfdevctr/>

ACCP

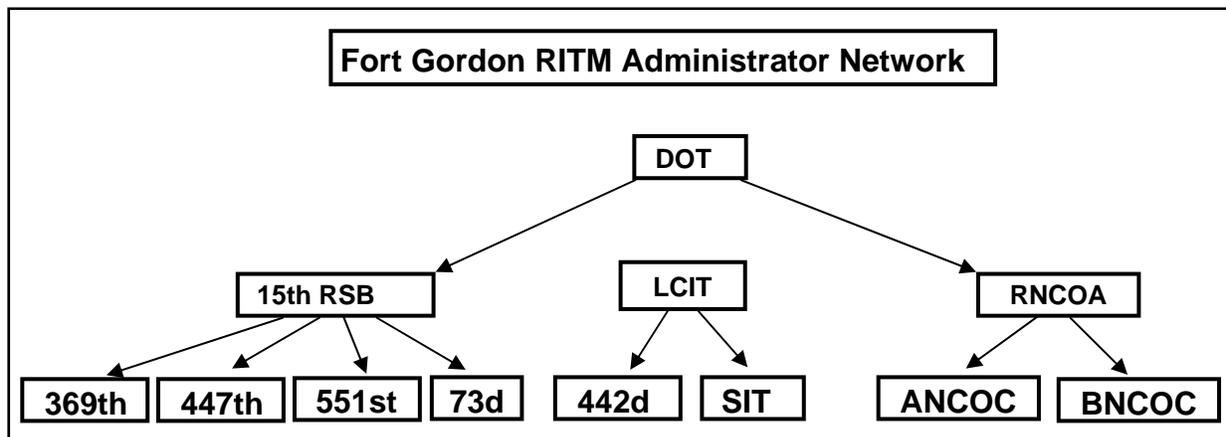
The ACCP is the formal nonresident extension of the United States TRADOC service schools' curriculum. New information, training, and material are continually added to the Reimer Digital Library (RDL) for dL training.

Visit the General Dennis J. Reimer Training & Doctrine Library at <http://www.adtdl.army.mil> to view courses that are available only in electronic format.

Resident Individual Training Management (RITM)

RTIM is the Army training information management system that provides U.S. Army schools, training centers, NCO Academies, and civilian training centers with the capability to administer and monitor resident training during peacetime and mobilization. RITM is accessible to all Active Duty, Guard, Reserve, and Civilians that have an AKO account. It operates as a component of the Army Training Information Architecture (ATIA).

RITM provides a central storage location for all training data, making it possible to easily view Soldier data between schools and unit of assignment.



ATIA

The Army Training Information Architecture was developed to support Army training by providing a blueprint to guide training investments and align other training architectures and programs.

ATIA is a DOD compliant and DA compliant, standards-based information architecture being developed in accordance with the Army Enterprise Architecture Guidance Document (AEAGD), the ATXXI Campaign Plan, the TRADOC DCSOPS&T approved functional architecture, the Common Operating Environment (COE), and the Joint Technical Architecture–Army (JTA-A).

Three primary components define the total ATIA:

- The Operational Architecture (ATIA-OA), which provides a functional description of Army training organizations, activities, and requirements.
- The Systems Architecture (ATIA-SA), which describes the system components of Army training.
- The Technical Architecture (ATIA-TA), which describes the standards for Army training information and information systems.

ATIA provides the basis for integrating and harmonizing multiple Army training products and information systems.

ATIA system's features provide:

- An integrated portal for training development, management, and delivery.
- A browser-based interface.
- Accessibility across a broad spectrum of communications environments and a wide range of user apertures.
- A tool that is platform-independent and self-organizing to task.
- A logically centralized, physically distributed database.

Digital Training Management System (DTMS)

DTMS is a web-based commercial-off-the-shelf (COTS) relational database. It has been customized to provide the ability to plan, resource, and manage unit and individual training at all levels. DTMS provides units at all levels easy access to the tools they need to plan, conduct, and assess training according to Army doctrine. It is optimized for use at Brigade and below. DTMS has a schools management tool to resource and allocate seats for new equipment training; sustainment training; collective system training; and troop school, safety, and other installation specific courses. DTMS provides the capability to correlate/fuse and deconflict training schedules and event requirements at the lowest level. It also provides on-line course registration considering necessary prerequisites and conflicting student requirements. DTMS provides commanders with a continuous update of the unit's training status.

DTMS currently interfaces with the Integrated Total Army Personal Database and consolidates all training proponent ASAT database collective and individual tasks.

SECTION 6. SUSTAINMENT

Sustainment of the dL program requires that attention be given to:

- Updating courseware and simulations
- Maintaining and upgrading facilities and communications infrastructure
- Adding new technology
- Restocking training materials
- Developing new courseware
- Adjusting for ARFORGEN requirements

Updating Courseware and Simulations

Life-cycle management must be integrated into contracts as we go forward. The development of strategies to address the legacy systems that do not have any life-cycle support must also be given more attention. This encompasses prioritizing legacy systems to be updated in the event that funds become available. The development and distribution of resources in house to extend the life cycle of legacy system also has to be considered.

The capacity to make upgrades to courseware and simulations that are within the range of our training developers and others must be examined. All upgrades to IMI do not require large expenditures of funds. It does require that a baseline of skills and equipment be established in the workforce.

Maintaining and Upgrading Facilities and the Communications Infrastructure

The maintenance and upgrades of CRXXI, DTF, and LLC facilities are borne primarily by TRA-DOC. These facilities are only a small part of the facilities and communications infrastructure. Consideration must be made for regular classrooms, workspaces, living areas, other facilities, and communication infrastructures that impact the ability of Soldiers and Civilians to maximize their use of dL resources on a wider scale. This falls into the realm of the Signal Center.

Adding New Technology

Technology is the driving force in a number of areas. A multiplier of technology is the innovation initiated by individuals. A thorough assessment of needs must be undertaken to get the most out of current and future investments. This also necessitates in-depth examinations of the capabilities of old and new equipment. Training the workforce to use new technology in addition to the introduction of new processes is required. You are still at square one if you fail to introduce process and performance improvements. Greater returns on investments must be the goal.

Restocking Training Materials

The development and upgrading of training materials requires that a simultaneous examination is conducted of the resources that support the training and learning process. Outdated materials residing in warehouses, repositories, and posted on the web must be upgraded or taken out of the system. In extreme cases, old materials may continue to be used because this is all that is available to instructors and training developers. Ownership for training materials needs to be firmly established. Repositories must be policed up on a regular basis.

Developing New IMI Courseware

The prospect of developing new IMI courseware should be approached in a pragmatic and practical manner. A key consideration in undertaking new IMI courseware development is Return on Investment (ROI). It is critical that the returns exceed the investment. You can help yourself in this area by conducting a needs analysis focused on the need for the new IMI courseware you think is needed. It is possible that the needs analysis may reveal that the answer or answers to your training challenge may be something other than training. It is essential that all users of the current product be surveyed to get their input.

A needs analysis provides you with a complete understanding of the shortcomings of the system. While a task analysis looks strictly at the tasks performed on the job, a needs analysis looks not only at the tasks being performed, but also at other parts of the system that might yield clues as to what might be done to improve it. Depending on your goals, you might perform a needs assessment, a task analysis, or a combination of the two.

There are two main methods to discover training needs. The first method takes the proactive approach. This is when a training analyst goes into the system or process and searches for problems or potential problems. The goal is to make the system more efficient and to prevent future problems from occurring. The second method is when an organization, supervisor, or instructor needs help in fixing a problem. These problems are usually caused by new operating environments, changes, or the introduction of new technologies.

Training developers, instructor, and training departments must act rapidly when problems arise

that might require a training solution. The ability of the organization to accomplish its mission could be in jeopardy. First, investigate the problem. A training need exists when an individual lacks the knowledge or skill to perform an assigned task satisfactorily. It arises when there is a gap between what the individual is expected to do on the job and what the actual job performance is. To decide if training is the answer, one basic question needs to be asked, "Does the individual being trained know how to meet the required performance standards for a task?" If the answer is "No," then training is needed. If the answer is "Yes" then another action, besides training, is needed. Some of these other actions might be counseling, job redesign, equipment redesign, or organizational development.

This is a synopsis of some questions that need to be answered in the needs analysis.

- Why do you need the training product?
- When do you need the training product?
- Who will be trained and how many?
- Where are you experiencing challenges in the performance of the equipment?
- Have you prioritized the need for this IMI product against other needs?
- What are the needs of your target audience?
- How are you meeting the current training needs?
- What are the shortfalls of the current training method?
- What innovations can you develop to meet some of the shortfalls?
- What is the life cycle of the equipment that is associated with this training product?
- Where do you plan to get the money to develop the IMI courseware?

You can also help yourself by developing a storyboard for the IMI product that you envision. This does not have to be done by a contractor. The storyboard should incorporate the flow and functionality you desire in the product. A presentation software such as PowerPoint can be helpful in developing the storyboard for the proposed product. Your storyboard should be a type of map, outlining all the major steps needed to complete the learning objective(s) for the proposed IMI courseware or training product.

Adjusting for ARFORGEN Requirements

The goal of ARFORGEN is to achieve a sustained, more predictable posture to generate trained and ready modular forces. The Signal Center's role in providing training to the Army RC and AC in addition to supporting training for other services makes adjusting for force generation requirements a complex venture. Operational requirements drive the ARFORGEN training and readiness process. There is a myriad of factors that can impact requirements.

ARFORGEN challenges:

- Technological shifts
- Meeting force requirements
- Operational tempo (OPTEMPO) needs
- Cross-leveling
- Attrition in the training base
- Restructuring force configurations
- Modification of operational cycles
- Changes in strategy and tactics
- Needs of other services

Maintaining timely and regular communications with everyone that have requirements is a key part of the process. Monitoring the ability of each service to meet its recruiting and retention goals is necessary. The ability of the training base to provide information and products to support knowledge needs and training needs is a strategic role that must be acknowledged. Distributed learning is a definite complement to many of the individual and unit training issues created by the challenges of ARFORGEN.

Challenges

The sustainment of dL is challenged by:

- Funding
- Integrating training needs in the procurement process

- Life-cycle management
- Business processes
- Advancements in technology
- Systems architecture
- Systems integration

These are some ways to address the challenges that affect the sustainment of dL:

- Develop a portfolio of all IMI products that have been developed and are being developed
- Perform a needs assessment for the training product
- Plan for multiple uses of IMI products
- Prioritize IMI product development
- Explore less expensive options to support the training need
- Engage users and training personnel early in the development process
- Stay abreast of advancements in technology
- Simultaneously crosswalk activities in the CRDD and DOT
- Develop some capacity in house to modify and develop IMI products using current authoring tools
- Maintain a continuous dialog with the users of training products
- Examine the business needs for the training product
- Develop details as to how life-cycle management will be accomplished

SECTION 7. TRADOC MEMO – APPROVAL PROCESS FOR dL COURSEWARE DEVELOPMENT



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
HEADQUARTERS UNITED STATES ARMY TRAINING AND DOCTRINE COMMAND
102 MCNAIR DRIVE
FORT MONROE, VIRGINIA 23651-1047

ATTG-CF

30 November 2006

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Approval Process for distributed Learning (dL)
Courseware Development

1. References:

a. Department of Defense Instruction (DODI) 1322.20, Development and Management of Interactive Courseware (ICW) for Military Training, 14 Mar 91, Incorporating Change 1, 16 Nov 94, <http://www.dtic.mil/whs/directives/corres/html/132220.htm>.

b. Department of Defense Instruction (DODI) 1322.26, Development, Management and Delivery of Distributed Learning, 16 Jun 06, <http://www.dtic.mil/whs/directives/corres/html/132226.htm>.

c. Message, Department of the Army, G3, 14 Feb 06, subject: Army Distributed Learning Policy, <http://www.tradoc.army.mil/tadlp/documents/Army%20dL%20Policy%20Msg.htm>.

d. TRADOC Regulation 350-70, Systems Approach to Training Management, Processes and Products, 9 Mar 00, <http://www.tradoc.army.mil/tpubs/regndx.htm>.

e. TRADOC Pamphlet 350-70-12, Distributed Learning- Managing Courseware Production and Implementation, 29 Mar 04, <http://www.tradoc.army.mil/tpubs/pams/p350-70-12.htm>.

f. Templates, Distributed Learning Education and Training Products (DLETP) Delivery Order (DO) for New Interactive Multimedia Instruction (IMI) Courseware and Distributed Learning Education and Training Products Delivery Order (DO) for Maintenance of Interactive Multimedia Instruction (IMI) Courseware, <http://www.atsc.army.mil/itad/imi/DLETPDOTemplates.asp>.

2. The TRADOC Program Integration Officer for the Army Distributed Learning Program (TPIO TADLP) will immediately establish a review and approval process for all dL courseware development and spending, in accordance with policy and procedures prescribed in the above references. This memorandum provides authority for the review and approval process.

3. The TPIO TADLP must approve all proposed expenditures, regardless of cost or source of funding, for the development of dL courseware and interactive multimedia course content. Courseware proponents will document planned dL development using approval processes described in reference 1e and development requirements described in reference 1f. Resource managers will ensure they have received TPIO TADLP approval prior to

certifying funds on development of any and all dL courseware or interactive multimedia content. (Army contracting agencies will ensure TPIO TADLP approval before proceeding to contract award.)

4. The TPIO TADLP will chair a dL courseware review board as part of the review and approval process. The review board will review and recommend approval or disapproval of dL courseware development projects. The courseware proponents must follow the processes outlined in references 1d, 1e, and 1f.

5. The TPIO TADLP will ensure reusability of dL courseware products and mitigate duplication of products in accordance with references 1a, 1b, and 1e. The TPIO TADLP will ensure, to the extent possible, DoD-wide reusability, consolidated contracting in accordance with reference 1f, and low-cost or no-cost solutions such as reuse of products developed in-house by Army agencies.

6. The DLETP is the TRADOC-approved contract vehicle for the development of all dL products. All proponents will use this contract vehicle for dL development. Exceptions will be granted on a case-by-case basis by the TPIO TADLP. However, all development must comply with specifications in 1f regardless of contract vehicle used.

7. All TRADOC proponents will ensure proper resources are allocated to ensure successful dL courseware development effort. The allocation of adequate subject matter experts, training developers, and quality assurance representatives is a prerequisite responsibility of the school implied by receipt of funds for courseware development.

8. This guidance applies to all expenditures for contractor supported dL development or maintenance.

9. Point of contact is LTC Frank Anderson, TRADOC Program Integration Office for TADLP, DSN 680-5563, (757) 788-5563, frank-anderson@us.army.mil.



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SECTION 8. IMI REQUEST FORM

USASC&FG, DOT, Interactive Multimedia Instruction (IMI) Request Form

(Please complete this in memorandum format)

1. **Title:** (Give a descriptive title to the IMI).
 - a. **Background/History:** (Describe the history of the project and what lead to the need for this IMI).
 - b. **Operational Impact:** (In this paragraph, describe the need for the IMI in terms of why the task(s) must now be trained if these tasks have not been taught or sustained previously. Disclose why the current method(s)/strategy for training the task(s) is (are) now insufficient/ineffective. Compute the cost savings, OPTEMPO, ammunition, reduced throughputs, etc. that will result from use of the proposed IMI/Simulation. Explain this in terms of "What does the Army have to gain if you get the IMI?" and "What does the Army have to lose if you do not get the IMI?")
2. **Category:** (Describe the application for the product. How will it be used? i.e. In a joint role training Marines, Army, Air Force, and Navy students at Fort Gordon in the SMART-T course. It also will be downloadable from LandWarNet eUniversity-Signal for familiarization.)
3. **References:** (Applicable Soldier Training Publication (STP), Technical Manuals (TM), Field Manuals (FM), Training Circulars (TC), Equipment Lists, Diagrams, storyboards, pictures of equipment to be modeled, and other supporting materials related. Insure adherence is made to guidance in TRADOC 350-70 and any applicable regulations and memorandums.)
4. **Quantity Authorized and Currently on Hand:** (The quantity of the piece of equipment or training device performing the function that is authorized and on hand.)
5. **Training Requirements:** (Describe the requirements for the proposed IMI. Include the following elements in your explanation).
 - a. Identify and describe the Target Audience(s):
 - b. Identify the course (s) and POI (s) the IMI will support for both Resident and/or Non-Resident Training: (Provide an electronic copy of the course description (s) and the POI (s) with all the supporting documents such as the lesson plans (w/TLOs & ELOs), course structure, course maps, individual task summaries, learner evaluation plan, learning objectives, handouts, other training aids and a flow chart visually depicting how the IMI will be used in the course.
 - c. Identify when you need the IMI and why: (This helps determine the period of performance for the potential contract and supports efforts to obtain funding based on operational needs and impacts.)

d. Training Strategy

(1) Describe how the IMI will be used in each course: (Will support a practical exercise, concurrent training, remedial training, testing, training instead of using actual equipment, stand-alone self paced instruction, etc.)

(2) Identify the portion of the course the IMI will encompass. An IMI may comprise a portion of a course or be the sole delivery medium an entire course.

e. Provide information as shown in the chart below for each lesson in the IMI. Include the chart in the memorandum.

Note: When information is not applicable for this project, use NA in the below chart.

(a) Task Title and Number	(b) Lesson Title and Number	(c) POI Instructional Hours	(d) Projected IMI Lesson Hours to be Delivered	(e) Projected IMI Hours at Each Level of Interactivity			
				1	2	3	4

(1) In (Column A) identify the Task Title and Number – This is the task title and number listed in the Lesson Plan, Training Support Package (TSP), or subcourse lesson that is taught, supported, or reinforced by this lesson.

(2) In (Column B) identify the Lesson Title and Number – The lesson title and number is the same that is listed in the Lesson Plan, TSP, or subcourse lesson. (*A lesson may contain multiple tasks).

(3) In (Column C) identify the POI Instructional Hours – Total academic hours (peacetime) included in the Lesson Plan or TSP, or the credit hours listed in the subcourse lesson for conducting training for this lesson. It includes all methods of instruction such as conference, demonstration and practical exercise. An academic hour is 50 minutes. (*A POI may contain multiple lessons).

(4) In (Column D) identify the Projected IMI Lesson Hours – This is the projected number of academic hours the average learner will take to complete the IMI lesson. This includes the learning activities, checks on learning, and Practical Exercises (PEs) that were developed to replace those listed in the Lesson Plan, TSP, or subcourse lesson. It also includes the pretest, posttest, and any additional PEs or tests. Additional PE hours or tests are those PEs that are extensions/additions to the PEs listed in the Lesson Plan, TSP, or subcourse lesson. Projected IMI lesson hours are approximately 70% of the POI instructional hours.

(5) In (Column E) identify the Projected IMI hours at each level of interactivity – This is the projected number of IMI hours that are projected for each level of interactivity. For example, for any given lesson, several different levels of interactivity may be indicated such as one hour at IMI Level #1 (i.e. Familiarize Mode of the Simulator), four hours at IMI Level #2 (i.e. Acquire Mode of the Simulator), two hours at IMI Level #3 (i.e. Practice Mode of the Simulator) and/or three hours at IMI Level #4 (i.e. Validate Mode of the Simulator). Categories of Production (audiovisual elements) do not influence the level of interactivity. The total number of hours listed in column (e) must equal the number of IMI hours listed in column (d).

f. Provide the task summaries for each tasks listed in the table.

g. Identify any Prerequisite training required.

6. Model Requirements and Characteristics for Simulations and Simulators:

- a. Describe what the actual piece of equipment to be simulated is: (This includes the component listing.)
- b. Describe what the actual piece of equipment to be simulated does: (Use technical Signal terms.)

7. IMI Requirements and Characteristics for personal computer-based Simulations or Simulators:

- a. Determine what type of simulation is needed: (live, virtual or constructive simulation with or without lessons).
- b. Determine if there are any unique features or functions that are needed: Questions to be considered include:
 - (1) Must it be interoperable (live, virtual, and constructive simulations compatible)?
 - (2) Must it be collaborative (multiplayer capable)?
 - (3) Must it be distributive (multilocation capable)?
 - (4) Must it include theory lessons?
- c. Determine additional multimedia requirements that are desired: (Does it need animation to support the theory based lessons if present?)

8. IMI Requirements and Characteristics for ICW Products:

- a. What type of IMI is needed?
- b. Are there any unique features or functions that are needed: (Does it need to include any simulations? A storyboard and flow chart would be helpful.)
- c. What additional multimedia requirements are needed: (Does it need animation to support the lessons?)

9. Administrative Information:

- a. Training Department Point of Contact (POC): (This person is the Commander's or Commandant's representative for the project. This individual coordinates the organization's action items and ensures that the work done by the training developers and subject matter experts meets the Commander's or Commandant's intent for the IMI.)
- b. Training Developer(s): (Include their name, MOS if applicable, system they are associated with, and their scheduled departure date from Ft. Gordon. It is best to pick someone that is projected to be on station until the project is complete. It is best to pick someone that will be on station until the project is complete.)
- c. Subject Matter Expert(s): (Include their name, MOS if applicable, system they are associated with, and their scheduled departure date from Ft. Gordon. It is best to pick someone that is projected to be on station until the project is complete.)
- d. Class # of Soldiers supporting the Group Trials (Education Validation) and the number of individuals in the class:
- e. Commander's Signature on Request.

SECTION 9. GLOSSARY

ACRONYMS

AC	Active Component	CAC	Common Access Card
ACCP	Army Correspondence Course Program	CBT	computer-based training
ADL	Advanced Distributed Learning	CAD	Course Administrative Data
ADLS	Army Distributed Learning System	COE	common operating environment
AEAGD	Army Enterprise Architecture Guidance Document	COR	Contracting Officer's Representative
AIMS-PC	Automated Instructional Management System - Personal Computer	COTR	Contracting Officer's Technical Representative
AKO	Army Knowledge Online	COTS	commercial-off-the-shelf
ALMS	Army Learning Management System	CRDD	Concepts, Requirements, and Doctrine Division
AMT	Army Modernization Training	CRXXI	Classroom XXI
ASAT	Automated Systems Approach to Training	CONUS	continental United States
ASI	Additional skill identifier	DA	Department of the Army
AR	Army Regulation	DCSOPS&T	Deputy Chief of Staff for Operations & Training
ARFORGEN	Army Force Generation	DDTC	Deployed Digital Training Campus
ARPRINT	Army Program for Individual Training	dL	distributed Learning
ATIA	Army Training Information Architecture	DLETP	Distributed Learning Education and Training Products
ATIA-M	Army Training Information System-Migrated	DLS	Distributed Learning System
ATIS	Army Training Information System	DO	Delivery Order
ATRRS	Army Training Resources and Requirements System	DOD	Department of Defense
ATSC	Army Training Support Center	DOIM	Directorate of Information Management
ATTN	attention	DOT	Directorate of Training
BCKS	Battle Command Knowledge System	DPTMS	Directorate of Plans Training Mobilization Security
BCMS	Blackboard Content Management System	DSN	Defense Switched Network
CAAS	Contracted Advisory and Assistance	DTAC	Digital Training Access Center
		DTF	Digital Training Facility
		DTMS	Digital Training Management System
		EMC	Enterprise Management Center
		ESD	Education and Services Division

FAQ	Frequently asked questions	RDL	Reimer Digital Library
ICW	Interactive Courseware	RITM	Resident Individual Training Management
G-1	Assistant Chief of Staff for Personnel	RNCOA	Regimental Noncommissioned Officers Academy
G-3	Assistant Chief of Staff for Operations and Plans	ROI	return on investment
HRC	Human Resources Command	RSB	Regimental Signal Brigade
IP	Internet protocol	SEN	Satellite Education Network
IT	Information Technology	SFDB	Staff and Faculty Development Branch
ITP	Individual Training Plan	SCORM	Sharable Content Object Reference Model
IMI	Interactive Multimedia Instruction	SMDR	Structure and Manning Decision Review
GFI	government furnished information	SME	Subject Matter Expert
GIG	Global Information Grid	SPF	structured professional forum
JTA-A	Joint Technical Architecture-Army	SQI	skill qualification identifier
KM	knowledge management	TALDP	The Army Distributed Learning Plan
LCIT	Leader College for Information Technology	TASS	The Army School System
LLC	Lifelong Learning Center	TNET	Teletraining Network
LMS	Learning Management System	TMD	Training Management Division
LWN	LandWarNet	TOMA	Training Operations Management Activity
LWN eU	LandWarNet eUniversity	TPIO	TRADOC Program Integration Office
LWN-U	LandWarNet-University	TRADOC	Training and Doctrine Command
MACOM	Major Army Command	TRAP	Training Resources Arbitration Panel
NCOES	Noncommissioned Officer Education System	TRAS	Training Requirements Analysis System
NG	National Guard	UIT	University of Information Technology
OCONUS	outside Continental United States	URL	Universal resource locator
OCOS	Office Chief of Signal	USAR	United States Army Reserve
OPTEMPO	Operational tempo	USASC&FG	U.S. Army Signal Center and Fort Gordon
OUSD	Office of the Under Secretary of Defense	VTT	Video Teletraining
P&R	Personnel and Readiness	WBIFT	web-based instructor facilitated training
POC	Point of Contact		
POI	Program of Instruction		
QAO	Quality Assurance Office		
RC	Reserve Component		
RCAS	Reserve Component Automation System		

DEFINITIONS

Computer-Based Training (CBT): Course materials presented or controlled by a computer that use multiple requirements for student responses as a primary means of facilitating mastery of a task or supporting skill and knowledge. Computer-based training may also be referred to as “computer-based instruction (CBI).”

(TRADOC PAM 350-70-2, Multimedia Courseware Development Guide, 26 JUN 03).

Constructive (M&S): Models, Simulators and/or Simulations that involve real people making inputs into an M&S entity that carries out those inputs by simulated personnel operating simulated systems.

(TRADOC REG 350-70, Systems Approach to Training Management, Processes and Products, 09 MAR 99).

Distributed learning (dL): The delivery of standardized individual, collective, and self-development training and education to soldiers, DAC, units, and organizations, anywhere at anytime, through the use of multiple means and technology. Distributed learning may involve student-instructor interaction in real time and non-real time. It may also involve self-paced student instruction without benefit of access to an instructor.

(TRADOC PAM 350-70-12, Distributed Learning - Managing Courseware Production And Implementation, 29 MAR 04).

Distance Education (DL): References to Distance Education have been phased out. The switchover to distributed learning (dL) has been formalized.

(AR 350-1, Army Training and Leader Development, 13 JAN 06.)

Interactive courseware (ICW): Computer controlled courseware that relies on trainee input to determine the pace, sequence, and content of training delivery, using more than one type medium to convey the content of instruction. Interactive courseware can link a combination of media to include, but not limited to, programmed instruction, videotapes, slides, film, text, graphics, digital audio, animation, and up to full-motion video, to enhance the learning process.

(TRADOC PAM 350-70-2, Multimedia Courseware Development Guide, 26 JUN 03).

Instructional Media Design Package (IMDP): An outline of the critical elements required to design CBI modules, lessons, or tests. It details the appearance, flow, and content of the IMI, and includes the instructional strategies used to present the learning objectives. This package includes a prototype lesson delivered with the IMDP.

(TRADOC PAM 350-70-2, Multimedia Courseware Development Guide, 26 JUN 03).

Interactive Multimedia Instruction (IMI): A term applied to a group of predominantly interactive, electronically delivered training and training support products, to include instructional software, and software management tools used in support of instructional programs. A hierarchical representation of IMI products is provided as follows:

- ICW
 - Electronic publications
 - Electronic guides
 - Interactive electronic technical manuals
 - Electronic testing
 - Simulation

- Electronic management tools
 - Electronic performance support systems
 - Computer aided instruction (CAI)
 - Computer managed instruction (CMI)
 - Electronic job aids

IMI Level 1: This is the lowest (baseline) level of ICW development. It is normally a knowledge, or familiarization, lesson, provided in a linear format (one idea after another). Level 1 is primarily used for introducing an idea or concept. The user has little or no control over the sequence and timed events of the lesson material. Minimal interactivity is provided by selective screen icons, and inserted into the lesson through typical input/output peripherals, and programming protocols. This may include simple developed graphics clip art, video, and audio segments (clips). Make use of typical input/output peripherals throughout the lesson.

(TRADOC PAM 350-70-2, Multimedia Courseware Development Guide, 26 JUN 03).

IMI Level 2: Level 2 involves the recall of more information than Level 1, and allows the student more control over the lesson's scenario, through screen icons and other peripherals, such as light pens, or touch screens. Typically, Level 2 is used for noncomplex operations and maintenance lessons. Simple emulations or simulations are presented to the user. As an example, the user is requested to rotate switches, turn dials, make adjustments, or identify and replace a faulted component as part of a procedure.

(TRADOC PAM 350-70-2, Multimedia Courseware Development Guide, 26 JUN 03).

IMI Level 3: Level 3 involves the recall of more complex information (compared to Levels 1 and 2), and allows the user an increased level of control over the lesson scenario, through peripherals such as light pen, touch screen, track ball, or mouse. Video, graphics, or a combination of both, is presented, simulating the operation of a system, subsystem, or equipment to the user.

(TRADOC PAM 350-70-2, Multimedia Courseware Development Guide, 26 JUN 03).

IMI Level 4: This ICW level involves more in-depth recall of a larger amount of information (compared to lower levels), and allows the user an increased level of control over the lesson. Every possible sub-task is analyzed and presented with full, on-screen interaction, similar to the approach used in aircraft simulator technology.

(TRADOC PAM 350-70-2, Multimedia Courseware Development Guide, 26 JUN 03).

Live (M&S): A representation of military operations using live forces and instrumented weapon systems interacting on training, test, and exercise ranges which simulate experiences during actual operational conditions.

(TRADOC REG 350-70, Systems Approach to Training Management, Processes and Products, 09 MAR 99).

Learning management system (LMS): An LMS consists of software and procedures that combine to administer training activities. An LMS typically resides on a dedicated computer/server and may act as the conduit for downloading a web-based dL training course to a student's computer.

(TRADOC PAM 350-70-12, Distributed Learning - Managing Courseware Production And Implementation, 29 MAR 04).

Model: A physical, mathematical, or otherwise logical representation of a system, entity, phenomenon, or process.

(TRADOC REG 350-70, Systems Approach to Training Management, Processes and Products, 09 MAR 99).

Multimedia: The use of more than one media, to achieve a specific purpose or objective. Multimedia refers to a technology combining text, still and animated images, video, audio, and other forms of computer data, which can be manipulated.

(TRADOC PAM 350-70-2, Multimedia Courseware Development Guide, 26 JUN 03).

Simulation: A method for implementing a model (s) over time. Any representation or imitation of reality, to include environment, facilities, equipment, mechanical and maneuver operations, motion, role playing, leadership, etc. It is the representation of salient features, operation, or environment of a system, subsystem, or scenario.

(TRADOC REG 350-70, *Systems Approach to Training Management, Processes and Products*, 09 MAR 99).

Storyboard: A graphic description or depiction of key scenes, arranged sequentially. It describes the action and content of the production, and specifies graphics, text, visuals, video, audio, and special effects.

(TRADOC PAM 350-70-2, *Multimedia Courseware Development Guide*, 26 JUN 03).

Task: A clearly defined and measurable activity accomplished by individuals and organizations. Tasks are specific activities that contribute to the accomplishment of encompassing missions or other requirements.

(TRADOC PAM 350-70-1, *Guide For Developing Collective Training Products*, 17 May 04).

Training Developer:The individual whose function is to analyze, design, develop, and evaluate training and training products, to include development of training strategies, plans, and products to support resident, nonresident, and unit training. Any individual functioning in this capacity is a training developer, regardless of job or position title. In developing systems, the command or agency responsible for the development and conduct of training, which provides the tasks necessary to operate and logistically support the new materiel system.

(TRADOC PAM 350-70-10, *Systems Approach To Training Course And Courseware Validation*, 29 Mar 04).

Training development (TD): The Army's training development process is the SAT. It is a systematic, spiral approach to making collective, individual, and self-development training decisions for the total Army.

(TRADOC PAM 350-70-10, *Systems Approach To Training Course And Courseware Validation*, 29 Mar 04).

Virtual (M&S): replication of actual warfighting equipment and munitions with the capability to execute collective training and rehearsal on a specific terrain data base. Links to Live and Constructive M&S through analog and/or digital links.

(TRADOC REG 350-70, *Systems Approach to Training Management, Processes and Products*, 09 MAR 99).

Simulator:

- a. A device, computer program, or system that performs simulation.
- b. For training, a device that duplicates the essential features of a task situation and provides for direct practice.
- c. A physical model or simulation of a weapons system, set of weapons systems, or piece of equipment which endeavors to replicate some major aspect of the equipment's operation.

(TRADOC REG 350-70, *Systems Approach to Training Management, Processes and Products*, 09 MAR 99).

SECTION 10. REFERENCES

Web References

Army Distributed Learning Program Web site
<http://www.tradoc.army.mil/tadlp/index.htm>

Army Civilian Training and Education System (ACTEDS)
<http://cpol.army.mil/library/permis/70.html>

Army Correspondence Course Program
<http://www.atsc.army.mil/accp/aipdnew.asp>

Army's e-Learning Program
<https://usarmy.skillport.com/SkillPortFE/login/usarmylogin.cfm>

Army Knowledge Online Login Page
<https://www.us.army.mil/suite/portal/index.jsp>

Army Learning Management System (ALMS)
http://www.dls.army.mil/lms_training.html

Course Structure Models
<http://www.tradoc.army.mil/tadlp/courseware.htm>

Courseware Management, Tracking, and Notification Policy
<http://www.tradoc.army.mil/tadlp/courseware.htm>

Distance Learning Course Implementation Procedures
<http://www.tradoc.army.mil/tadlp/courseware.htm>

dL Courseware Approval Authority
<http://www.tradoc.army.mil/tadlp/courseware.htm>

LandWarNet eUniversity
<https://lwn.army.mil/>

LWN eU Signal
<https://lwn.army.mil/>

Note: To access LWN eU Signal, follow the URL for LWN eU. Click on the link for LWN eSignal. Click on the "Other eUniversities" link. Access LandWarNet eU Signal.

SCORM
<http://www.adlnet.gov/about/index.aspx>

Signal Education Program
<http://www.gordon.army.mil/OCOS/edu/default.asp>

Teletraining Network (TNET)
<http://www.atsc.army.mil/itsd/vtt/vttmain.asp>

Video Teletraining (VTT)
<http://www.atsc.army.mil/itsd/vtt/vtthome.asp>

The Fort Gordon Education & Services Division (ESD)
<http://www.gordon.army.mil/aceS/>

Go Army Education
<https://www.earmyu.com/Login.aspx>

84th Training Command (Leader Readiness)
<https://artc.mccoy.army.mil/>

