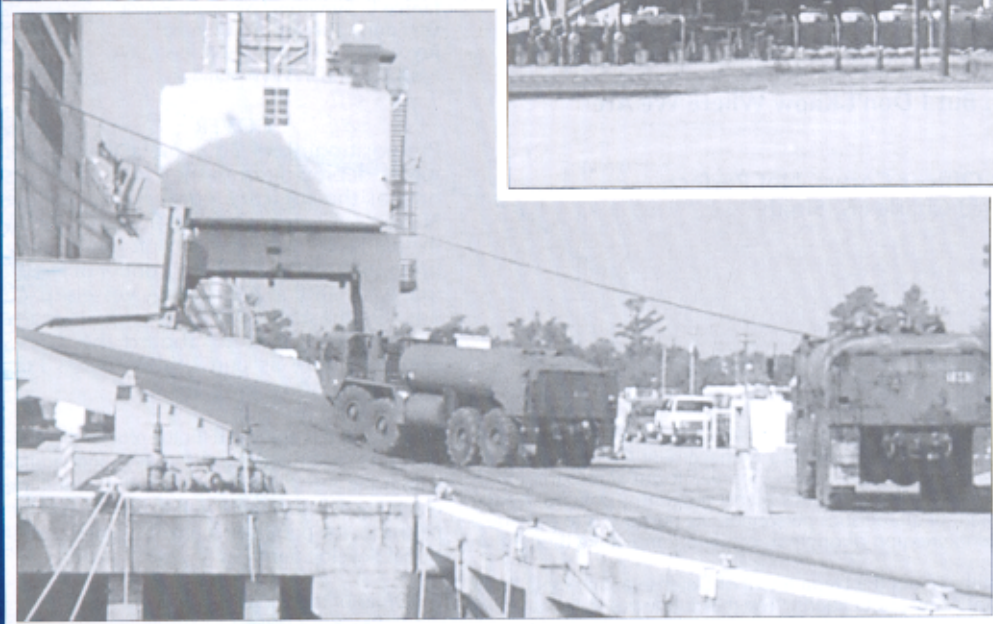


ARMY LOGISTICIAN

JANUARY-FEBRUARY 1998



*Power
Projection
Logistics*

ARMY LOGISTICIAN

PROFESSIONAL BULLETIN OF UNITED STATES ARMY LOGISTICS

PB 700-98-1

JANUARY-FEBRUARY 1998

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Mission: *Army Logistician* (ISSN 0004-2528) is the Department of the Army's official bimonthly professional bulletin on logistics, prepared at the Army Logistics Management College and published by the Army Combined Arms Support Command, Fort Lee, Virginia. Its mission is to publish timely, authoritative information on Army and Defense logistics plans, programs, policies, operations, procedures, and doctrine for the benefit of all logistics personnel. Its purpose is to provide a forum for the exchange of information and expression of original, creative, innovative thought on logistics functions.

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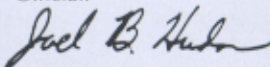
Pre-positioning of equipment for combat forces deploying from the United States is one of the logistics cornerstones of the Nation's power projection strategy. Articles in this issue examine two pre-positioning programs: on the northern frontier of NATO (page 12) and on board Navy vessels (page 24). On the cover, Army vehicles are ready for loading (bottom) aboard the *USNS Shughart* (top) as part of the Army's Pre-positioned Afloat program.

This medium is approved for the official dissemination of material designed to keep individuals within the Army knowledgeable of current and emerging developments within their areas of expertise for the purpose of enhancing their professional development.

By Order of the Secretary of the Army:

DENNIS J. REIMER
General, United States Army
Chief of Staff

Official:



JOEL B. HUDSON
Administrative Assistant
to the Secretary of the Army
04055

Coming in Future Issues—

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- Transporters and Remote Area Infrastructure
- Contingency Contracting: A Combat Multiplier
- Joint Operations and Logistics Support
- Defending Outside the Wire
- Logistics in the French Army
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- Improving Sustainment Logistics Processes
- The Legacy of Mass Logistics
- Building a Tire Distribution Network
- LOGPARS '97

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Earlier Accounts of Railroads

The information presented in the letter, Recent Army Rail History, in your July-August 1997 issue, does not go quite far enough back in time. The final Report of General John J. Pershing regarding U.S. participation in World War I makes clear the intimate working relationship of the rail component of the Army Transportation Corps in France and the French railroads. In writings of the time, frequent references to troop and other travel in French freight cars labeled "40 HOMMES, 8 CHEVAUX" should serve as a reminder of U.S. use of French rolling stock.

My memory of this is aided by the war stories of my father, who served in France, and the reminiscences of my grandfather, then president of the Baltimore and Ohio Railroad, who was given a direct commission in the Army late in 1918 to join Pershing's staff and help reorganize the French railroads. (The war ended before he went.)

The history of such cooperation may be traced back even further if one considers the use of American railroads by the U.S. Army during the Civil War.

**Daniel Willard
Washington, D.C.**

Impact of IMPAC Cards

In your July-August Emphasis column, you note that the Army Audit Agency has determined that making IMPAC [international merchant purchase authorization card] VISA purchases saves an average of \$92 per transaction versus using a small purchase order. There is another side to that coin.

The report, AA 97-58, also found that the cost of processing an IMPAC VISA transaction averages \$39.03 plus a \$23.46 DFAS [Defense Finance and Accounting Service] fee. It stated that

changes to the IMPAC VISA administrative process (most of which have occurred since the report) could increase efficiency by \$9.00 per transaction (to \$30.03).

Bottom line is that, when considering whether to make a small purchase using IMPAC or to requisition it from the supply system, perhaps we should add \$30 to the cost of the locally purchased item and compare that to the AMDF price.

**Paul Krumhaus
Annandale, Virginia**

Reducing Order and Ship Time

Very interesting article on velocity management [VM] and TACOM [in the September-October 1997 issue]. I found it to be somewhat enlightening, although there are some misconceptions and misstatements.

I can understand the Tank-automotive and Armaments Command choosing the HMMWV as the test bed for its foray into VM. At any installation, HMMWV's make up the biggest fleet. Therefore, the impact of one vehicle on fleet readiness at the division and corps level is negligible. However, if you are the commander of a unit with only "onesies or twosies," 33.4 days OST [order and ship time] is not acceptable. The HMMWV tires should be ASL [authorized stockage list] items, but if there are none on hand, that requisition goes to wholesale, and that 33.4-day average period of time does have an effect on unit readiness.

It also is interesting that they chose to use bias ply as opposed to radial tires. Yes, by now most units should be utilizing radials; however, due to problems in the past, such as cost and availability of wheels and tires, some are still utilizing the bias ply.

By the way, the statement, "In addition, the vendor ships the requisitioned materiel directly to the end user instead

of to a central receiving point," is not totally true. The tires are requisitioned from the SSA [supply support activity]. If there is stock on hand, it is issued; if not, the SSA forwards the document under its document number to the corps SARSS 2C for referrals. If no tires are available at the corps level, the document then goes to the wholesale system. The tires are then shipped from the vendor to either the central receiving point or, in the case of SSA's receiving direct delivery, to that SSA. At no time does stock get sent directly to the "end user." Not all SSA's (at least on this installation) receive direct deliveries due to lack of proper facilities.

Currently, 6,000-pound, variable reach rough terrain forklift tires are also procured in this fashion. This system is low density on this installation. Average ship time for these tires is in the neighborhood of 15 days. That is totally unacceptable. The Division on this installation has procured approximately 8 tires in the past 6 months. Yes, this should be an ASL item, due to the number of demands. However, the requisitions were passed to the wholesale system. And as a result, the unit suffered.

Probably a good question for direct vendor delivery would be this: As the commercial sector is prone to strikes, what is the solution if a vendor is on strike when requisitions are passed from the retail side to the wholesale side? Will ASL requisitions, low-priority documents, be forwarded to the vendor and sit idle in their "in box" until the strike is mediated? Is a second vendor in line to pick up the slack in case of a strike? If the strike lasts for any great period of time, stockage in the ASL might dwindle to nothing or near nothing. Meanwhile, replenishment documents are sitting idle waiting to be filled by a vendor who is on strike. If there is no second vendor, then item manager intervention or adjustment in the automated procedures may have to be considered to ensure that requisitions are filled, most likely from stock at the depots. Tires are prone to dry rotting after sitting for a period of time, so this would help to

ensure that depot stockage is rotated.

Considering that HMMWV and forklift tires have commercial uses, wouldn't it be practical to have "corporate contracts" in place? DLA [Defense Logistics Agency] currently has corporate contracts with manufacturers of low density Army systems. Having talked with the DLA representatives at this installation, some ship times are as low as 5 days. Couldn't TACOM make an arrangement with a vendor, such as Goodyear or Firestone, to have the requisition passed from the inventory control point to the vendor, electronically sent to the nearest dealer, and then the tires brought to the installation for delivery. Talk about velocity management! OST would drop considerably, and unit readiness would increase.

Chris Cullen
Fort Drum, New York

Water Availability and Use

The world is urbanizing... and natural disasters are on the rise. Major Tubbell's excellent article on PLS flatracks shows that it's possible to set up a firefighting module using 3,000 gallons of water, pumps, and related equipment on a flatrack for Army units to use in fighting fires in the cities during war or natural disasters. One PLS truck could move a flatrack or firefighting module to several locations for fighting fires. Army combat engineers could fight the fires as empty modules are brought back to a water point for refilling. Please contact the good Major for me on this urgently needed PLS development. Water is scarce in underdeveloped areas and areas where disaster has destroyed water points; such a modular firefighting capability could save thousands of lives.

I also liked Captain Choi's article on ROWPU [reverse osmosis water purification unit] water being stored in bags. It was our nonprofit 1st Tactical Studies Group (Airborne) that pioneered the effort to get the U.S. Army to adopt drink-on-the-move capabilities. There is now a long drinking tube that connects a canteen to the drinking

tube of the M40 field protective mask. I'd like to contact the ROWPU bag developers, get some bags, and develop and perfect a drinking tube interface so soldiers can put a ROWPU bag in their rucksack and drink from a tube while on the move.

Mike Sparks
Fort Bragg, North Carolina

Thank you for expressing your interest in Major Tubbell's and Captain Choi's articles. Shortly after we received your letter, ALOG staff members provided you with points of contact on both of these topics. By now, we hope you have been in touch with the Army Center for Health Promotion and Preventive Medicine, Aberdeen Proving Ground, Maryland, concerning the water bags and the Program Executive Office for Tactical Wheeled Vehicles, Warren, Michigan, to discuss your ideas on the PLS.

—Editor

Requisitioning Flight Strips

Army air traffic control towers use flight strips to monitor and record air traffic. The flight strips are managed and distributed by the Federal Aviation Administration (FAA). The flight strips have been assigned a national stock number (NSN), FSC 0052. The FAA recommends that Army users of the flight strips submit funded MILSTRIP [Military Standard Requisitioning and Issue Procedures] requisitions for the items using Routing Identifier G69. I have asked several Army installations to submit requisitions for the strips using the established NSN; however, units tell me they are unable to submit a requisition through their supply support activity for these items.

What would prevent units from requisitioning these strips using their DODAAC [Department of Defense Activity Address Code] and the information given? What else is needed? Could it be that these NSN's are not loaded into the Army data base? If that is the problem, how can I get this done? This prob-

lem is having an adverse affect on Army air traffic control. Please respond.

Bill Harrison
Fort Belvoir, Virginia

Editor's Note—Mr. Harrison's message was forwarded to the Combined Arms Support Command for action. We later checked to see if the action was completed, and we received the following reply.

Thank you for responding to my letter. I have talked to Earl Stinson in the Office of the Department of Army Deputy Chief of Staff for Logistics about this problem. He said that the FAANSN's are not listed in FEDLOG. I contacted the office of the FAA commodity manager for these items, and they have agreed to look into adding the seven NSN's that we use.

If the FAA will do that, then Army air traffic control folks can requisition flight strips through their local supply support activity and the world will be a better place.

Bill Harrison
Fort Belvoir, Virginia

Log Notes lets you share your thoughts on logistics. You may want to comment on an *Army Logistician* article, take issue with something we've published or something happening in logistics, or share an idea on how to do things better. Your letter will be edited only to meet style and space constraints. All letters must be signed and include a return address; if you request, your name will not be published. Mail letters to EDITOR ARMY LOGISTICIAN, ALMC SUITE C300, 2401 QUARTERS ROAD, FT LEE VA 23801-1705; send them by fax to (804) 765-4463 or DSN 539-4463; or e-mail to alog@lee-dns1.army.mil.

'REVOLUTION' AHEAD IN ARMY LOGISTICS

General Dennis J. Reimer's focus on logistics has been a catalyst for a number of changes underway throughout the Army. The Army Chief of Staff told a Senate committee last year that "there will not be a revolution in military affairs unless there is a revolution in logistics." And, according to General Johnnie E. Wilson, commander of the Army Materiel Command (AMC) in Alexandria, Virginia, "there are going to be some radical changes in the way we do business." AMC is the Army's primary combat service support organization.

One of the changes ahead involves putting much of the Army's supply system on the Internet. At the same time, AMC depots, arsenals, ammunition plants, testing organizations, laboratories, and acquisition activities will greatly expand their use of credit cards for logistics and supply operations.

Another AMC initiative involves using sensors on weapon systems for prognostic, rather than diagnostic, maintenance. "Such a system will tell us when a certain component will fail *before* it fails," Wilson said. In another initiative being piloted by AMC, private contractors will be responsible for the life-cycle management of large weapon systems. "We will let a contract to a company that will require that company to maintain an inventory of spare parts for the entire system. The contract will require them to tell us when the system needs to be upgraded and when it needs to be brought in for maintenance," Wilson said.

The Army Communications-Electronics Command at Fort Monmouth, New Jersey, is leading AMC's effort to reduce the Army's consumption of batteries and extend the life of those it uses. Sufficient stocks of batteries are hard to maintain and a significant drain on Army budgets. For example, U.S. Army, Europe, spent \$9.6 million on batteries in fiscal year 1996.

DOL CONFERENCE RESCHEDULED

The second worldwide directorate of logistics (DOL) working conference has been rescheduled for 21 to 23 January at the Army Logistics Management College, Fort Lee, Virginia. For more information, call (804) 765-4436/4351 or DSN 539-4436/4351 or send e-mail to deramusf@lee-dns1.army.mil.

INSTALLATIONS AND FACILITIES MANAGEMENT REINVENTION LAB NAMED

The Administrative Assistant to the Secretary of the Army and the Director of the Army Staff have designated installations and facilities management as one of seven reinvention labs within Headquarters, Department of the Army (HQDA).

The Installations and Facilities Management Lab is sponsored by the Assistant Secretary of the Army for Installations, Logistics, and Environment and the Assistant Chief of Staff for Installation Management. Major Army commands and installations will identify and recommend to the lab the removal of perceived barriers to effective and efficient installation management and base operations support. The lab will evaluate functional area initiatives, requests for regulatory and statutory waivers, and legislative change proposals from garrison commanders and their staffs and reengineer operations processes within HQDA and the field that will help garrisons to become most effective and efficient organizations.

Reinvention initiatives must be submitted on a reinvention initiative proposal form, which can be obtained by calling Hal Jerome at (703) 614-4312 or DSN 224-4312 or sending an e-mail request to jerome@pentagon-acsim.army.mil.

IMMC ESTABLISHED AT NATICK

The Army Soldier Systems Command (SSCOM), Natick, Massachusetts, welcomed a new Integrated Materiel Management Center (IMMC) on 1 October 1997. The SSCOM IMMC results from a 1995 Base Realignment and Closure Committee decision to transfer materiel management functions for soldier items from the Aviation and Troop Command to SSCOM.

The IMMC will provide full-service logistics support to the Army's most important weapon system—the soldier. The IMMC will be an interface with soldiers in the field on SSCOM items, equipment, systems, central issue facilities, clothing initial issue points, and military clothing sales stores.

The SSCOM IMMC is the materiel manager for product lines developed by SSCOM's Natick Research, Development, and Engineering Center, to include hard and soft shelters, aerial delivery equipment, field

ORGANIZATIONAL CHANGES

service equipment (kitchens, laundries, latrines, and showers), Force Provider stocks, clothing, and individual equipment. The SSCOM IMMC is the Army's service item control center for clothing and individual equipment and provides oversight of the Army's central issue facilities, clothing sales stores, and garrison laundries.

NEW MAJOR ARMY COMMAND NAMED

The Army Space and Missile Defense Command (SMDC), Arlington, Virginia, became a major Army command (MACOM) on 1 October. The new MACOM results from expanding the missions and functions of the former Army Space and Strategic Defense Command, a field operating agency of the Office of the Chief of Staff of the Army.

SMDC is the Army component of the joint U.S. Space Command, proponent for space and national missile defense, materiel developer for assigned programs, and the Army's integrator for missile defense. It furnishes space assets and products to Army warfighters and provides effective missile defense for the nation, deployed U.S. forces, and their allies.

SMDC's new Space and Missile Defense Battle Lab links the Army's space and missile defense efforts to the operations of the Army Training and Doctrine Command battle labs. Its new Force Development and Integration Center will be the proponent for doctrine, training, leader development, organizations, materiel, and soldier support for space and national missile defense.

The new SMDC organization assigns responsibility for space technology development to the Missile Defense and Space Technology Center in Huntsville, Alabama. Another SMDC element in Huntsville, the Space and Missile Defense Acquisition Center, incorporates into one organization the Joint Land Attack Cruise Missile Defense Elevated Netted Sensor Project Office and the Ballistic Missile Targets Joint Program Office, as well as the Army Space Program Office in Fairfax, Virginia; the High Energy Laser Systems Test Facility at White Sands Missile Range, New Mexico; and the Kwajalein Missile Range in the Marshall Islands in the central Pacific.

AMEC CLOSES

Following a recommendation made by the Army Training and Doctrine Command (TRADOC) last May, the Department of the Army closed the Army Management Engineering College (AMEC), Rock Island Arsenal, Illinois, on 30 September 1997. The decision was based in part on TRADOC's conclusion that the Army did not need to furnish the type of training AMEC provided, but instead should depend on non-Army sources for the training. Funds were not available to support privatization of AMEC. AMEC was established in 1952 as the Ordnance Management Engineering Training Program under the Ordnance Corps. Later, it became an element of the Army Materiel Command and was renamed the Army Management Engineering Training Activity. Years later, the name was changed to AMEC.

U.S. ARMY SOUTH HQ TO RELOCATE

Headquarters, U.S. Army South, will begin a year-long relocation from Fort Clayton, Panama, to Fort Buchanan, Puerto Rico, in October 1998. The move is in accordance with the 1977 Panama Canal treaty that mandates the departure of all U.S. military forces from Panama by 31 December 1999.

U.S. Army South is a component of U.S. Southern Command (USSOUTHCOM). It is responsible for command, control, and support of U.S. Army forces in Central and South America and the Caribbean area. The headquarters also executes regional security for the commander-in-chief, USSOUTHCOM.

Fort Buchanan became a subordinate installation of U.S. Army South on 1 June 1997 as part of the 1995 Unified Command Plan changes. Under these changes, USSOUTHCOM assumed command and control from the U.S. Atlantic Command of all U.S. forces operating in the Caribbean area and the Gulf of Mexico.

The move will include more than 800 soldiers and civilians with an estimated economic impact to Puerto Rico of \$80 million annually. Army officials also expect the move to create more than 250 new civilian jobs.

DISTANCE LEARNING GETS ARMY SUPPORT

The Department of the Army has allocated approximately \$55 million a year for fiscal years 1998 through 2003 to establish distance learning centers and classrooms and to develop courses. This move is part of a plan to create a distance learning system that, by 2010, will put 745 classrooms at more than 200 sites. With the system, more soldiers can be trained at their home stations.

Soldiers on peacekeeping missions in the Sinai have proven the effectiveness of distance learning. The Primary Leadership Development Course has been made available there so soldiers can continue their military education. Soldiers in Bosnia also receive professional training through distance learning. Additionally, distance learning can be effective in combat situations. Critical training, such as language courses, can be given to soldiers who are in a theater. Mechanics can receive solutions to maintenance problems from motor pools or aviation centers in the United States.

In the future, distance learning may be available to students who are not near a center. The plan is to give the automated systems that are embedded in tanks, Bradley fighting vehicles, and other equipment the capability of plugging into the network.

"It is a logical, sequential way that we've evolved to get the Army into the 21st century and to maximize the use of training technologies," said Lieutenant Colonel Steve Rodis, Chief of the Army Distance Learning Program Branch, Office of the Deputy Chief of Staff for Training (DCST), Army Training and Doctrine Command (TRADOC), Fort Monroe, Virginia.

Training officers from all major

Army commands have identified courses to be taught by the distance learning system. TRADOC will develop the courses, and the Army Training Support Center, Fort Eustis, Virginia, will teach course developers how to make lesson plans for distance learning formats. About 40 percent of the courses to be developed will be for reserve component military occupational specialty (MOS) reclassification. The distance learning plan recommends a desired mix of video teletraining, CD-ROM, computer-based training, and text. However, the schools' MOS training experts may determine the best delivery mix.

The distance learning network has been classified a major system, which means that development plans have to be approved by the Major Army Information Systems Review Council. A distance learning program manager has been assigned to DCST to ensure that milestones are met and the approved funds are released to TRADOC.

ACQUISITION COURSE ON INTERNET

As part of Defense Acquisition University's (DAU's) continuing education program, the Simplified Acquisition Procedures (SAP) Course is now available on the Internet. The SAP Course will update those personnel who have already taken DAU's PUR 101, Simplified Acquisition Fundamentals, and PUR 201, Intermediate Simplified Acquisition Procedures, or CON 101, Fundamentals of Contracting, on changes that have taken place since they completed their training.

The SAP Course was developed by Human Technology, Inc., of McLean, Virginia, and subject matter experts at the Army Logistics Management College (ALMC), Fort Lee, Virginia. Instructors at ALMC and Lackland Air Force Base, Texas, monitor the progress of the students enrolled in the course and answer any questions they may have. The students communicate with the instructors by e-mail or telephone. There is also a help desk to answer technical questions.

The SAP Course uses a combination of HyperText Markup Language (HTML) web pages and Authorware written lessons streamed over the web. This combination allows more interaction between the students and the programmed lessons, making the learning process more entertaining than just reading text from an HTML page. Currently, the SAP Course does not include audio presentations because only a small portion of the target audience has access to computers with audio capability.

Making the SAP Course available on the Internet has charted new territory in distance learning for the DAU. The DAU home page address is <http://www.acq.osd.mil/dau>. Once there, click on "Training" and then "SAP."

CLASSES TAUGHT IN VIRTUAL CLASSROOM

The Army Logistics Management College (ALMC), Fort Lee, Virginia, recently offered its first course in a virtual classroom via the Internet. The virtual classroom

encourages students to communicate regularly with the instructor and the other students as they complete course requirements on a computer at their home or work station.

The virtual classroom creates the feeling that the student is part of a "class," or group of people who are learning together while they complete a course provided on CD ROM or the World Wide Web. In ALMC's virtual classroom, there is constant interaction among the students and instructors through e-mail, a chat room on the Internet, and a program called "I Seek You" (ICQ) that enables the students to locate one another online and establish communication channels on the Internet.

ALMC has had a great deal of experience with distance learning through correspondence courses, CD ROM, and, more recently, on the World Wide Web. Distance learning enables students to com-

plete courses at their own location and at their own pace, usually through the use of a computer. Past experience showed that most distance education students need to communicate with the instructor and other students. Although the students were told they could contact the instructor at any time to ask questions about assignments or discuss aspects of the course, the majority never took advantage of the offer. With virtual classroom instruction, group interaction is an essential element of the course.

In the first use of the virtual classroom at ALMC, the Defense Reutilization and Marketing Property Accounting Course was presented on the World Wide Web from 1 October 1997 through 6 February. Students were provided with the names and e-mail addresses of their "classmates." They were instructed on how to log in to "chat" and how to establish an account for using ICQ. Before

the class began, the students became acquainted with the communications system by introducing themselves to one another in a preliminary chat session. Chats then were scheduled for once a week, with both morning and afternoon sessions for reviewing the same lesson. Weekly assignments were graded by the instructor and discussed in the chat sessions.

Studies by colleges and universities have shown that students who experience "group learning" in the virtual classroom are more likely to complete online courses and retain more of the learning. ALMC expects to see a more satisfactory success rate from its students in the virtual classroom than those using other distance learning modes.

For more information, call Kim Mackey at ALMC's School of Systems and Acquisition Management at (804) 765-4283 or DSN 539-4283, or send e-mail to mackeyk@lee-dns1.army.mil.



□ A worker at the East Coast CCP secures an ALOC load to prepare it for shipment.

DDSP OFFERS CREDIT CARD ADVICE

Following private industry's lead, the Department of Defense (DOD) has authorized many installations and units to use credit cards to make purchases to satisfy immediate and short-term demands. At the East Coast Consolidation and Containerization Point (CCP), which is operated by the Defense Distribution Depot Susquehanna (DDSP), New Cumberland, Pennsylvania, credit card shipments have increased dramatically. To improve the efficiency of credit card shipments, DDSP has pinpointed two trouble spots that are contributing to slow processing of orders and loss of intransit visibility and offers these suggestions for preventing the problems—

- Direct vendor deliveries for transshipment. Some supplies arrive at DDSP from vendors with no document number, "ship to" address, or ultimate consignee. These items cannot be shipped on to the requesting unit and, instead, are held in the CCP until more information is received. Units must ensure when ordering that the vendors include a document number for each item,

a specific "ship to" address, and the ultimate consignee by DOD activity address code.

- **Missing document numbers.** Units often order multiple supplies from the same vendor. However, some vendors do not put separate document numbers on each line item in the order, making it difficult to track individual shipments. Units must ensure that the vendor assigns a separate document number to each line item and places a lead document number on the outside of the box. The lead document number will be converted to a transportation control number to permit intransit visibility tracking.

ARMY TESTS OUTSOURCING OF PCS MOVES

In an effort to improve the support provided to soldiers and their families during permanent change of station (PCS) moves, the Army is testing the feasibility of contracting out transportation services for military personnel. The Army awarded a contract to HFS Mobility Services, Bethesda, Maryland, to provide moving services for the pilot program at Hunter Army Airfield, Georgia. The company will track personal property from pickup to delivery and keep soldiers informed on

the status of their shipments.

During the test, the installation adjutant general provides copies of PCS orders to the contractor. The contractor then assigns a personal move coordinator to work with each soldier. The contractor arranges the move for the soldier, provides quality control, audits carrier invoices, processes all paperwork, and bills the Army once a month for shipments made the previous month. The contractor even helps the soldier find a home or a place to rent and someone to rent his previous home if desired.

An added dividend to the contractor-managed moves is full replacement value for lost or damaged household goods. The Army claims system pays soldiers a depreciated amount for lost or damaged goods, up to a maximum of \$40,000. The contractor-managed system pays full replacement value for lost or damaged goods, up to a \$75,000 maximum. Soldiers file claims directly with the contractor, saving the Army claims costs.

The test will be conducted until August. The Army has the option to renew the pilot program for up to 2 years. Test results will be validated by the Army Audit Agency to determine whether the program should be adopted Army-wide.



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The information presented in Army Logistician's ALOG Systems is compiled, coordinated, and produced by the Army Combined Arms Support Command (CASCOM) Information Systems Directorate (ISD). Readers may direct questions, comments, or information requests to Lieutenant Colonel Thet-Shay Nyunt by e-mail at nyuntt@lee-dns1.army.mil or phone (804) 734-1207 or DSN 687-1207.

—Editor

ICS³ GENERAL OFFICER WORKING GROUP CHARTERED

At the Senior Leaders Training Conference in July 1997 at Redstone Arsenal, Alabama, an Integrated Combat Service Support System (ICS³) General Officer Working Group (GOWG) was chartered by the Chief of Staff of the Army, General Dennis J. Reimer, to oversee coordination of ICS³ among numerous commands, systems, and branches. The working group is chaired by General William W. Hartzog, commander, Army Training and Doctrine Command. The GOWG is empowered to cross all Army lines of command to develop ICS³. Major General Daniel G. Brown, current CASCOM commander, serves as the executive agent for implementation of the project.

From its inception, ICS³ was envisioned as an evolutionary system that would subsume current systems, either through functionality or interfaces. A major hurdle in bringing these systems together was that they were under the purview of various commands and proponents with entangled responsibilities. At the Senior Leaders Training Conference, Major General Robert K. Guest, then CASCOM commander, proposed the establishment of the GOWG as a solution to this "Gordian knot." (General Guest's briefing is available on CASCOM's web page: http://www.cascom.army.mil/automation/ICS3_Integrated_Combat_Service_Support_System/Briefings/Online_briefing.)

The working group includes representatives from the Army Training and Doctrine Command; U.S. Army, Europe; Army Materiel Command; Office of the Army

Deputy Chief of Staff for Personnel; Army Corps of Engineers; Army Communications-Electronics Command; Army National Guard; Army Reserve; Defense Finance and Accounting Service; combat service support centers; and commands in the field.

The CASCOM ISD is the combat developer for the ISC³ project. Colonel Edward Shimko, (804) 734-1222 or DSN 687-1222 (e-mail: shimkoe@lee-dns1.army.mil), is the director of information systems, and Lieutenant Colonel Loretta Starkey, (804) 734-0284 or DSN 687-0284 (e-mail: starkeyl@lee-dns1.army.mil), is the project officer for CASCOM.

The ICS³ materiel developer is Peter Johnson, Project Manager, Integrated Logistics Systems (PM ILOGS), (804) 734-7665 or DSN 687-7665 (e-mail: johnsonp@lee-dns1.army.mil). Lieutenant Colonel Joseph Brito, (804) 734-7688 or DSN 687-7688 (e-mail: britoj@lee-dns1.army.mil), is the PM ICS³.

ICS³ MAINTENANCE MODULE UNDERWAY

The maintenance module of ICS³ is under development. This module, unlike current software, is a functional component and not a "stovepipe" or stand-alone system. It will work alongside other modules, such as management, property accountability, or supply, to generate transactions, management data, and reports. The benefit of module development is that some of the programming codes in each module can be reused in others when similar functions are needed.

System designers and functional experts from the field hope to develop an easy-to-use product that meets standards established by operational requirements documents. The project manager for ICS³ has sponsored four maintenance module joint application design (JAD) sessions to capture the detailed requirements and identify common functionalities.

The last maintenance module JAD session took place at Fort Lee on 3 to 6 June 1997. Approximately 50 functional experts representing the Standard Army Maintenance System (SAMS)—1, -2, and -I/TDA [Installation/Table of Distribution and Allowances]; Unit Level Logistics System (ULLS)—Ground; and ULLS—A [Aviation] analyzed logbook, quality control, and production control processes. Unit-level processes examined included requisitions, work orders, aircraft and mission configuration, scheduled and unscheduled maintenance, reports, inspections, and phase flow management. Functional experts from CASCOM; the Army Aviation Logistics School, Fort Eustis, Virginia; Aviation Maintenance Officers Course, Fort Rucker, Alabama; 160th Special Operations Aviation Regiment, Fort Campbell, Kentucky; and numerous other commands and agencies also defined business processes per-

formed by flight company and aviation unit maintenance personnel.

Three follow-on meetings are planned to discuss supply, shop/work center, and flight operations. CASCOM points of contact are Captain James Delaney, (804) 734-0085 or DSN 687-0085 (e-mail: delaneyj@lee-dns1.army.mil), and Chief Warrant Officer (W-4) John L. Birkner, (804) 734-0001 or DSN 687-0001 (e-mail: birknerj@lee-dns1.army.mil).

ULLS-A ICP 01-10 READY FOR RELEASE

ULLS-A Interim Change Package 01-10 was scheduled for release to the field in December 1997. It includes the following software additions: the OH-58D helicopter progressive phased maintenance schedule; partially mission-capable reporting time against an airframe; automatic not-mission-capable maintenance reporting time until the maintenance operational check is complete per AR 700-138 (Army Logistics Readiness and Sustainability); capability for the aviation unit maintenance company to submit high-priority work requests for not mission-capable faults; tracking of T700, T701, and T701C engine hours by the history recorder; and improved flight-hour accuracy during data transfer. The CASCOM point of contact is Captain James Delaney, (804) 734-0085 or DSN 687-0085 (e-mail: delaneyj@lee-dns1.army.mil).

SARSS-O INFORMATION ON WEB

Current information on the Standard Army Retail Supply System-Objective (SARSS-O) is available on the Program Manager (PM) SARSS home page. This site provides not only system-unique information within the site itself, but also information on hardware, expendable supplies, and pertinent maintenance tips through external links to the Tactical Management Information System (TACMIS) home page.

Operational for almost a year, the site has progressed from a bare-bones system description to a repository for a wide range of key system information that is useful to all levels of command and operation. Users only need to have access to the Internet and a web browser, such as Netscape or Microsoft Internet Explorer, to view this site. Of special interest is the fact that users can download some of the system manuals and Interim Change Package (ICP) listings. The listings contain descriptions of the engineering change proposals that are included in each ICP. PM SARSS is committed to

making this site a valuable tool that will help SARSS users provide the most efficient logistics support to the Army into the 21st century. Visit the PM SARSS web site at <http://ilogs.army.mil/sarss.htm> or write to the PM SARSS at: PM ILOGS, ATTN: SFAE-PS-RS (SARSS), 800 Lee Avenue, Fort Lee, VA 23801-1718. If you prefer, you may call the PM SARSS at (804) 734-7670 or DSN 687-7670 or send a fax to (804) 734-7553 or DSN 687-7553 (e-mail: hayesh@lee-dns1.army.mil).

SAAS-MOD BEING TESTED

The technical training phase of the Standard Army Ammunition System-Modernization (SAAS-MOD) developmental/operational test for block 1B (division ammunition office [DAO] and ammunition supply point [ASP]) was completed on 2 October 1997 and the functional training phase began the next day. The test bed for SAAS-MOD block 1B is South Korea. SAAS-MOD replaces all previous versions of SAAS. SAAS-MOD block 1A (materiel management center) was fielded worldwide and runs on MS Windows NT. DAO and ASP systems will operate on laptop computers. ASP systems will be configured with radio frequency-automatic identification technology. The point of contact in CASCOM is Howard Barnett, (804) 734-1023 or DSN 687-1023 (e-mail: barneth@lee-dns1.army.mil).

TC-AIMS II UPDATE UNDER DEVELOPMENT

Transportation Coordinators' Automated Information for Movements System II (TC-AIMS II) is the joint logistics and operational automation system that supports force deployment, installation transportation operations, and movement management. Now in development and testing, TC-AIMS II is undergoing year-long Beta assessments at Fort Hood, Texas, and Fort Eustis, Virginia. TC-AIMS II runs on commercial off-the-shelf hardware. Service system extension plans and initial sustainment training are in development. Basis of issue plan (BOIP) feeder data were scheduled to be forwarded from PM TACMIS to the Army Communications-Electronics Command, Fort Monmouth, New Jersey, in November 1997. The Army Force Management Support Activity at Fort Lee, Virginia, then will staff the resulting draft BOIP to major Army commands, schools, and centers worldwide. Major Michele Ritchie-Roberts, (804) 734-1352 or DSN 687-1352 (e-mail: robertsm@lee-dns1.army.mil), is the TC-AIMS II project officer in CASCOM.



DEPARTMENT OF THE ARMY
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REPLY TO
ATTENTION OF

October 20, 1997

Dear Fellow Logisticians:

For 28 years, *Army Logistician* has been **the** professional development publication for all of the Army's logisticians. Whether you are military or civilian; Active Army, National Guard, or Army Reserve; or specialize in ordnance, quartermaster, transportation, or aviation logistics—this is **your** publication. Since the Vietnam War, from the Logistics Offensive and Inventory in Motion to Force XXI and Joint Vision 2010, *Army Logistician* has chronicled the development of Army logistics. At the same time, it has offered logisticians a forum where they can tell their stories, share their ideas, and, on occasion, criticize what the Army is doing.

As chairman of *Army Logistician's* Board of Directors, and as a logistician and a longtime reader of *Army Logistician*, I invite you to become more involved with your publication. There are three ways you can do this. First, and most obviously, **read** it. *Army Logistician* is the only publication that covers the full spectrum of Army logistics, from the depot to the unit in the field and from rations to repair parts. As logistics becomes more of a multifunctional discipline, all of us need the broad-based information available in *Army Logistician*.

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The third way you can be more involved in *Army Logistician* is to **discuss** it. Most issues of *Army Logistician* go to units and activities, not individuals. If you are a unit commander or organization supervisor, encourage your people to read that copy of *Army Logistician* on the table or in the magazine rack and discuss the articles that are significant to them. *Army Logistician* articles offer a good way to get your people thinking and talking about their work.

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Daniel G. Brown
Major General, U.S. Army
Commanding Officer

Prime Vendor: Velocity Management at DLA

Prime Vendor programs offer
Defense Logistics Agency
customers faster service
while saving
the Government money.

Velocity Management is an Army program designed to provide logistics support to soldiers as fast as any first-rate commercial firm can deliver its products to its customers. The Defense Logistics Agency (DLA), headquartered at Fort Belvoir, Virginia, is using the same Velocity Management methods in its business practices to achieve the same goals as the Army—faster, cheaper, and more responsive service. Specifically, DLA has developed a supply chain management concept called Prime Vendor that has improved the efficiency and effectiveness of its logistics support.

Prime Vendor eliminates the layering of supplies at multiple echelons and shifts inventory, inventory management, transportation, and personnel costs from the Government to commercial firms. Prime Vendor programs take advantage of the experience of commercial vendors, whose profit-based business practices demand lean inventories and rapid deliveries. Prime Vendor initiatives allow the Department of Defense (DOD) to achieve significant annual savings and revolutionize logistics support of the retail customer. Prime Vendor is Velocity Management in action.

The development of Prime Vendor was made possible by the growth of electronic commerce—the use of computer networks to conduct business transactions. The 1994 Federal Acquisition Streamlining Act established a 1997 deadline for implementing the use of electronic commerce Government-wide. The primary agent of electronic commerce is electronic data interchange (EDI), which is the computer-to-computer exchange of business data in a standard format. EDI networks can update inventories automatically, issue materiel releases against purchase orders, send invoices to customers, pay suppliers, generate bills of lading, and provide shipment information.

The DLA Prime Vendor programs being fielded across all of the services in one form or another are changing quickly the way wholesale logisticians, retail customers, and commercial vendors interact. These programs are employed primarily within the continental United States (CONUS) but are expanding overseas. They have been created to provide subsistence, medical and surgical equipment, pharmaceutical items, batteries, selected repair parts, and bulk metals; more commodities will follow. Here is a brief look at how Prime Vendor operates.

Subsistence

The installation dining facility manager at Fort Lee, Virginia, enters his facility on a Wednesday morning. While inspecting his inventory for a special weekend dinner, he realizes that he has not ordered enough vegetables or meat to support the expected headcount on Sunday. He sits down at his computer, pulls up the Army Food Management Information System (AFMIS) Shopping List, and electronically submits his requirements through the installation Subsistence Prime Vendor Interpreter (SPVI) to the Subsistence Prime Vendor. He departs his office confident that his order will be delivered in 48 hours.

The Army Subsistence Program, managed by the Defense Personnel Support Center (DPSC) in Philadelphia, Pennsylvania, initiated a DOD Food Inventory Demonstration Project in fiscal year 1995. This project evolved into Subsistence Prime Vendor. Under this program, the contractor assumes responsibility for inventory, inventory management, and transportation and services the installation dining facility much as he would any restaurant or other institution he supplies.

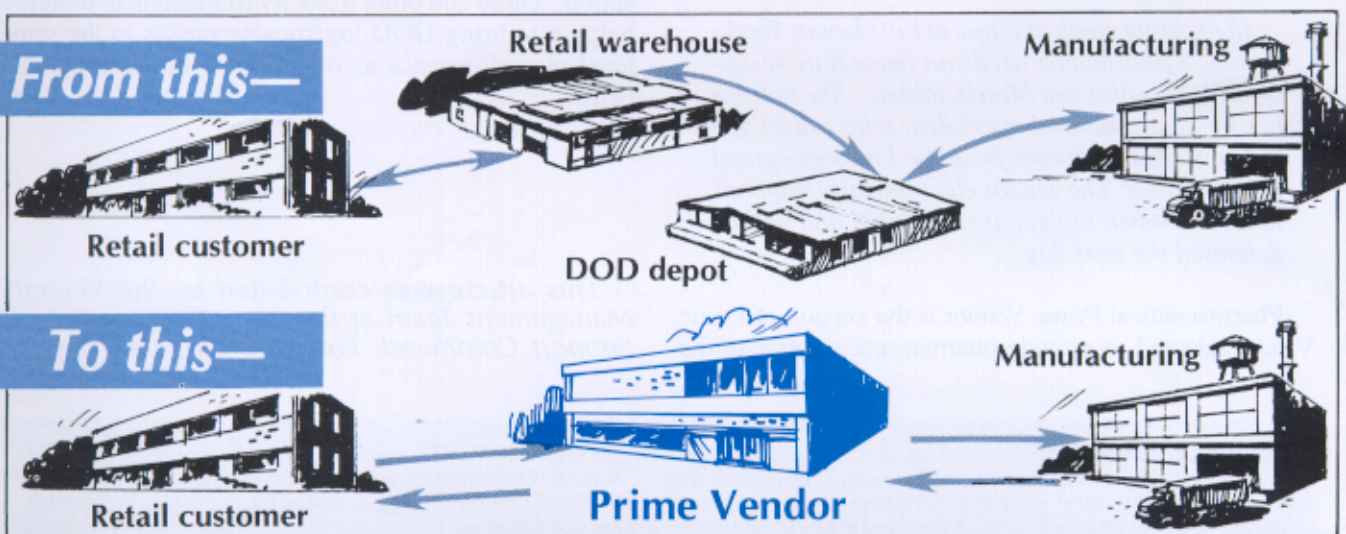
The Prime Vendor program offers numerous advantages. Troop issue subsistence activities on CONUS installations have seen their missions dra-

matically reduced. Army-operated on-post food distribution has ceased. Personnel served by the dining facility are provided fresher products with brand names. Implementation of Subsistence Prime Vendor in CONUS was scheduled to be completed by December 1997.

Clothing

In October, DPSC plans to implement Virtual Prime Vendor at the clothing initial issue points (CIIP's) that support the Army Training and Doctrine Command's soldier initial entry training mission at Fort Benning, Georgia; Fort Jackson, South Carolina; Fort Knox, Kentucky; Fort Leonard Wood, Missouri; and Fort Sill, Oklahoma. Because military clothing is a unique commodity not found in the private sector, DPSC took a different approach to implementing Velocity Management for clothing than it did for subsistence. Under this modified version of Prime Vendor, regional contractor-owned and -operated facilities are established to receive, store, and distribute DPSC-owned stocks in accordance with DPSC instructions. Because they are linked electronically, DPSC, the contractor, and the CIIP's are able to complete routine replenishment actions within 96 hours and emergency replenishment actions within 24 hours.

Under this Prime Vendor program, DLA supports CIIP's by substituting velocity (reduced order and ship time) for the mass of clothing (as much as 60-



□ Under DLA's Prime Vendor program, a contractor assumes the role of Defense depots and Army warehouses in supply distribution. The inventory, inventory management, personnel, and transportation costs previously borne by the Government also shift to the contractor.

90 days of supply) that CIIP's now must warehouse to meet the needs of incoming soldiers. This will lead to reduced stocks, reduced work loads, and cost savings at Army CIIP's and DLA support centers.

Packaged Petroleum and Batteries

Under the Direct Vendor Delivery (DVD) program initiated in 1994 by Product Center 4 at Defense Supply Center-Richmond (DSCR), Virginia, the Prime Vendor program is applied to packaged petroleum products and hazardous chemicals. By using Direct Vendor Delivery, from fiscal years 1993 to 1996 DSCR was able to improve demand satisfaction from a cumulative rate of 85.4 percent to 90 percent and reduce inventories by 15 percent, procurement lead times by 30 percent, and backordered lines by over 20 percent.

DSCR also manages the interservice Vehicular Battery Consignment Program (VBCP), which tailors the Prime Vendor concept specifically to meet battery requirements. Under VBCP, the Federal customer provides the site for the contractor's operations and a manager to maintain Government accountability, and the Exide Corporation assumes the responsibility (including costs) for battery storage, inventory management, servicing, and direct exchange. VBCP is employed at over 165 locations by all of the services. By shifting responsibility for disposal management to the contractor, VBCP has largely eliminated tasks associated with shelf-life management and hazardous materials handling.

Pharmaceutical Supplies

In an Army medical clinic at Fort Lewis, Washington, a pharmacist needs an immediate resupply of 800-milligram Motrin tablets. She notifies her medical materiel specialist, who orders the item over his computer from the Pharmaceutical Prime Vendor. The vendor electronically responds that the Motrin tablets are available and will be delivered the next day.

Pharmaceutical Prime Vendor is the version of Prime Vendor adapted to provide pharmaceutical items to the

field. For fiscal years 1991 through 1995, benefits attributable to Pharmaceutical Prime Vendor include reductions of \$382 million in wholesale inventories, \$71 million in retail inventories, and \$92 million in the cost of drugs.

Repair Parts

At Fort Campbell, Kentucky, the shop non-commissioned officer in charge (NCOIC) for the aviation intermediate maintenance unit checks the maintenance backlog of one of her teams. Her team chief says they could finish an engine replacement by tomorrow if they only had a specific part. Unfortunately, the warehouse is at zero balance, and no parts are due in anytime soon. The NCOIC returns to her editing section, punches in an access code on a computer, pulls up an ordering screen, and walks away with the assurance from her Repair Parts Prime Vendor that the part will be delivered by noon the next day.

In 1994, the Army Tank-automotive and Armaments Command (TACOM), Warren, Michigan, recognized the need to reengineer its multimillion-dollar spare and repair parts acquisition process. For its first application of Direct Vendor Delivery, TACOM chose the high-mobility, multipurpose, wheeled vehicle's bias-ply tire. Immediate payoffs came in the form of less paperwork, shorter administrative lead times, and reduced personnel costs associated with processing each requisition.

Electronic commerce and Prime Vendor are excellent examples of the Velocity Management methodology in action. These and other Velocity Management tools are helping to bring DOD logistics processes to the same level of performance as those of the best commercial firms.

ALOG

This article was contributed by the Velocity Management Team at the Army Combined Arms Support Command, Fort Lee, Virginia.

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Janice W. Heretick, 9 September 1997

Repair Parts Support for Foreign Military Sales

by Major Don Hill

The Department of Defense sells military weapon systems and equipment to our country's allies through a program known as Foreign Military Sales (FMS). FMS is an important extension of U.S. foreign policy. FMS programs can improve the military capability of our allies and can decrease the likelihood of our having to deploy U.S. forces to help with their defense. Successful FMS programs often bring stability to formerly unstable regions. In addition, FMS often lowers the unit price of equipment purchased for U.S. forces by increasing the total number of weapon systems produced, thus allowing for greater economies of scale. FMS also has played a key role during the drawdown of U.S. forces by keeping our industrial base "warm."

The U.S. Army Security Assistance Command (USASAC), Alexandria, Virginia, currently is administering the sale of over \$44 billion in equipment, repair parts, and services to FMS customers. Part of the reason for this success is that the Army has a reputation for providing superior logistics support to our FMS customers. Countries that buy equipment from the U.S. Army know they also will get operator and maintenance training, publications, special tools, and repair parts. The same total package fielding concept that works so well during new equipment fieldings to U.S. Army units also works well with FMS customers. During the fielding process, the customer gets an initial dose of repair parts that normally will last for 1 or 2 years.

To provide for follow-on repair parts supply, FMS customers can participate in a special FMS program known as a cooperative logistics supply support arrangement, or CLSSA. Countries that participate in the CLSSA program actually become direct customers of the U.S. Army supply system. They enjoy the same priority and support received by U.S. Army units. To participate, the country first must "buy into" our supply system and gain some equity by purchasing repair parts and assemblies to "pre-stock" in U.S. supply depots. Their pre-stockage is based on the end items being supported and on their anticipated demands. The customer country then competes on an equal basis with U.S. Army units and other countries for the parts and assemblies that are listed in its pre-stockage agreement. If the country requests a repair part or assembly that is not part of their agreement, then the country may have to wait one procurement cycle before the part is shipped. USASAC conducts annual reviews with customer countries to determine if their pre-stockage should be changed to reflect actual demands and changes to the numbers and types of end items being supported.

There also is a special program that countries can take advantage of, either as part of their CLSSA, or under a separate blanket order—the simplified nonstandard acquisition program (SNAP). The SNAP allows countries to purchase non-national stock numbered (non-NSN) repair parts for commercial vehicles and equipment. A procurement office within the Army Tank-automotive and Armaments Command, Warren, Michigan, runs this very successful program.

Many FMS customers participating in the CLSSA program currently order their repair parts through the automated supply tracking and reparable returns-personal computer (STARR-PC) communications system. The STARR-PC system allows the customer to send requisitions, requests for status, and messages to USASAC by modem from a standard personal computer. During a transmission, the customer also receives timely status on requisitions previously submitted. The system also is capable of providing some basic financial tracking reports. STARR-PC has reduced significantly the amount of time it takes for customer countries to submit requisitions and determine up-to-date supply status.

Normally, U.S. Government transportation is not used to ship goods to FMS customers. The FMS customer designates a freight forwarder operating within the continental United States to act as its agent to receive items shipped from U.S. depots and contractors. USASAC considers an item to be "delivered" when it is picked up by a carrier at the supply point. The freight forwarder must get the items to their client country.

FMS customers participating in the Army's CLSSA program receive outstanding repair parts support. They often are able to get repair parts just as quickly as U.S. Army units. This responsive support enables our allies to maintain their U.S.-built equipment in a high state of readiness and contributes to the overall effectiveness of the FMS program.

ALOG

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Understanding Integrated Sustainment Maintenance

by Major David M. Funk

The Persian Gulf War revealed that the Army's available general support (GS) maintenance capabilities were not integrated fully into logistics plans to provide coordinated sustainment maintenance support. The repair facilities of Active Army, Army National Guard, and Army Reserve GS maintenance units, depots, and contractors operated independently, often duplicating efforts and wasting valuable resources. It was obvious that some type of centralized management structure was needed to quickly identify and respond to theater support requirements and priorities.

In response, the Logistics Integration Agency developed the concept of integrated sustainment maintenance (ISM). Sustainment maintenance includes all maintenance performed above the direct support level, including GS, depot, and contractor maintenance. Under ISM, basic requirements are defined to ensure that sustainment maintenance operations are conducted in support of current Army missions (both peacetime and war) as efficiently as possible; then the efforts of all sustainment maintenance repair facilities are coordinated by a single, stratified management structure.

In field testing, ISM has reduced the cost of GS repairable exchange (GS/RX) component repairs while providing quality products. ISM saves money because more items are repaired at the installation level than are purchased from the wholesale level. ISM also provides the logistician (military or civilian) with a method of measuring how well the process is working. The logistician can access not only maintenance data but also supply, transportation, and financial information. This ensures that the commander receives the best possible support. Because of its demonstrated success,

the ISM program has been approved for Army-wide implementation.

ISM provides many features that can assist the installation logistician. Once he is familiar with these features, the logistician can get the most out of the ISM program and, in turn, provide optimal support to his installation GS/RX customers.

Single Management Structure

ISM integrates sustainment maintenance activities under a single management structure that has three levels. At the top is the national sustainment maintenance management (NSMM) office, which is based at the Army Industrial Operations Command, Rock Island Arsenal, Illinois. The NSMM office provides oversight for all ISM operations and acts as an interface between the Army Materiel Command's (AMC's) major subordinate commands and the regions that perform ISM work.

Below the NSMM office in the continental United States (CONUS) are two regional sustainment maintenance management (RSMM) offices, one in the West managed by the 13th Corps Support Command (COSCOM) at Fort Hood, Texas, and one in the East managed by the 1st COSCOM at Fort Bragg, North Carolina. A theater sustainment maintenance management (TSMM) office will be activated soon under the command and control of the 21st Theater Army Area Command in U.S. Army, Europe. TSMM offices also are planned for Eighth U.S. Army in Korea and U.S. Army Pacific in Hawaii. The RSMM and TSMM offices coordinate all ISM management activities within their respective areas of responsibility.

At the third level of the ISM structure are the local sustainment maintenance management (LSMM) offices, which are located at various Active Army installations and National Guard and Reserve maintenance activities throughout CONUS. A LSMM office normally is located in the maintenance division of an installation directorate of logistics (DOL) or, for the National Guard, at a state surface maintenance management office. The LSMM office manages the daily production of ISM lines (items selected for maintenance under ISM) at its regional center of excellence (COE). A COE is a central location where a particular ISM line is repaired for all customers within a given region. Using the COE concept, GS maintenance activities are able to maximize their repair capabilities.

Maximized GS Repair Capabilities

Before ISM, each installation DOL and each state developed its own GS repair program. These programs were designed to repair as many GS repairable items as possible in support of installation readiness requirements. However, there were limits to the repair capabilities and capacities of the DOL's and the states. Un-

serviceable items that they could not repair were turned in to the wholesale supply system, to be bought back eventually at full price.

ISM maximizes GS-level repair capabilities and optimizes the use of available resources. By consolidating the repairs of a particular ISM line at one regional COE, duplication of effort across a region is eliminated. Consolidation of similar work requirements allows GS maintenance activities to become more efficient in using their limited manpower. By taking advantage of economies of scale, the overall mean time to repair (MTTR) of ISM items has been reduced substantially compared to pre-ISM performances. MTTR and repair cost figures under ISM also are substantially lower than those of depots.

Centralized Planning, Decentralized Execution

Under ISM, planning is centralized but execution of GS-level repairs is decentralized within a designated region. The RSMM office is at the center of ISM operations for a region. By using a stringent selection process, the RSMM office determines what GS repairable components in the region meet the criteria to become ISM lines. It then conducts regional production, planning, and control conferences offsite on a semiannual basis to award ISM lines to COE's and to discuss logistics trends affecting ISM operations. During the quarters between these conferences, the RSMM office conducts a regional production performance review by video-teleconference to go over COE production statistics with the LSMM offices. The conferences and reviews provide an excellent opportunity for continuously reviewing production performance and output and adjusting short- and mid-range production schedules accordingly.

The RSMM office publishes an annual production schedule, and the LSMM offices then are tasked to perform the repair work. Each LSMM office is responsible for shipping unserviceable ISM items to other COE's for repair and coordinating reimbursement for repairs completed at those COE's. LSMM offices also are authorized to coordinate with each other to ensure that production by the COE's meets any local surge requirements that may arise.

Asset Visibility Through Automation

ISM provides greater visibility of GS repairable assets through the use of sophisticated automation equipment. At the heart of GS repairable management within the ISM program is a computer system known as the Executive Management Information System (EMIS). EMIS is used at the LSMM, RSMM, and NSMM offices. Each participating major Army command (MACOM) also has EMIS.

EMIS uses a relational data base to collect and con-

solidate data from various logistics Standard Army Management Information Systems (STAMIS) and MACOM-unique maintenance management systems. It displays these data in a format that is easy to read and understand. EMIS allows the LSMM, RSMM, and NSMM offices to monitor maintenance and supply trends and adjust production when necessary. With EMIS, logistics managers can make informed decisions. This ISM automated function will soon be captured in an Army STAMIS.

EMIS also allows logistics managers at all levels to conduct "what if" analyses to assist in researching logistics trends. EMIS output data are stratified for the various levels of the ISM management structure. The LSMM offices can access the most detailed information on each open work order.

Maintenance data are retrieved from the GS maintenance activities' STAMIS across the region and converted to a standard format at the RSMM EMIS. Currently, EMIS receives maintenance data from the Maintenance Information Management System, Automated Materiel Maintenance Management Information System, Standard Army Maintenance System (SAMS)-1 (from active and reserve component military GS maintenance activities), and SAMS-Installation/Table of Distribution and Allowances.

The LSMM and RSMM offices can use EMIS to track trends in backlogs. If a COE is overwhelmed with unserviceable items, the RSMM office can direct that a portion of its work load be cross-leveled to another COE in the region. Cross-leveling helps avoid zero balance lines, which prevents more wholesale buys. Finally, the RSMM office can track repair times (MTTR and turn-around times) and costs to determine whether an ISM line should be retained at the current COE or be moved to another COE at the next production, planning, and control conference.

The LSMM office can provide the manager of the installation supply division an ad hoc daily or weekly report that will let the division know the estimated completion date of all open ISM work orders (both local and offpost COE work orders). Using this information, the supply manager can make informed decisions on whether to hold a requisition and wait for an item to come out of maintenance or pass the requisition to the wholesale level.

EMIS also extracts data from various supply STAMIS, which assists the logistics manager in researching current and candidate ISM lines. The RSMM EMIS has access to asset balance file information from the Standard Army Intermediate Level Supply System and the Standard Army Retail Supply System gateway for each installation and state in the region. With these data, the RSMM office can identify ISM lines that are zero balance across the region and direct surge pro-

duction at a COE as required.

The RSMM office receives monthly updates from the Central Demand Data Base (CDDDB) at AMC's Logistics Support Activity in Huntsville, Alabama. These data, along with data received from other supply STAMIS, assist the RSMM office in determining annual demands for each ISM line. The CDDDB data also are used to identify possible ISM candidate lines with high demands. The Logistics Intelligence File for installations within the region is available to the RSMM office upon request. These data on wholesale purchases, coupled with demand and repair data, give the RSMM office a good indication of which items should be repaired under the auspices of ISM. The RSMM also uses these data in developing the annual regional COE production schedule.

Availability at Reduced Cost

ISM allows a region to maintain a high level of weapon system component availability at a reduced cost. Since ISM began in the West Region in November 1993, there has been no degradation of component availability at the retail supply level within the region. ISM has been responsive to local and regional surge requirements. Used as a retail level source of repair, ISM has been able to capture and repair many GS reparable before they are sent back into the wholesale supply system.

Single Point of Contact

One of the ISM program's best features is that it provides a single point of contact (POC) to answer any GS/RX questions a customer may have. That single POC is the LSMM office, which coordinates all maintenance, supply, transportation, and financial activities to ensure COE repairs are accomplished to standard and on time.

The LSMM office monitors production for all ISM lines being repaired at its COE. It also monitors the status of all of its installation's ISM jobs at other COE's through EMIS. The LSMM office, in cooperation with the installation supply division, also keeps tabs on the supply status of repair parts for ISM work orders. If a production line is stopped because a spare part is not available (a line stopper), the LSMM office will contact the RSMM office for further assistance. The RSMM office in turn will contact the NSMM office, which will research the matter with the item manager for the commodity in question. In most cases, line stopper requirements are filled immediately.

The LSMM office monitors the status of all ISM items evacuated to or from COE's at other installations. Using EMIS, the LSMM office can track individual ISM work orders by evacuation case, Government bill

of lading, or Federal Express number to ensure that items have been routed properly to and from an offpost COE. This provides better accountability of evacuated ISM items and permits the LSMM office to research and find any misrouted or frustrated cargo. By tracking these transportation data, the LSMM and RSMM offices can monitor the turn-around time of an ISM work order.

Finally, the LSMM office coordinates with its installation directorate of resource management, or the equivalent agency for reserve component activities, to establish and maintain Military Interdepartmental Purchase Requests (MIPR's) between installations and states participating in the ISM program. The MIPR's cover all costs associated with ISM repairs, including repair parts, round-trip transportation, and, in some cases, labor (for repairs conducted by active component activities for reserve component owning activities and vice versa).

The LSMM office is the primary POC for all ISM questions from the installation level. If the LSMM office is unable to answer a question, it will elevate the issue to the RSMM office for resolution.

Competition

Competition is key to making the ISM program work. Competition causes organizations to improve their operations so they can gain and hold a competitive edge. Installation DOL's and National Guard and Reserve maintenance activities are given the opportunity to compete for, and be awarded, ISM work as regional COE's. This competition leads to greater cost efficiencies as current and potential COE's streamline their repair procedures to win work.

The ISM program has evolved into a very structured operation. A business process manual guides all ISM participants through daily operations. An entire chapter of this manual is devoted to the COE bid process. The RSMM office uses sealed bid procedures similar to those found in the Federal Acquisition Regulation. Strict rules govern the bid process. The RSMM office uses this bid process to ensure that the COE with the "best value" is awarded the regional work for a particular ISM line. "Best value" is determined by total cost and by the available capability and capacity of each maintenance activity submitting a bid on an ISM line. Checks and balances ensure that no "low ball" bids are submitted. The RSMM office will challenge any bid that does not meet the bid criteria found in the manual.

In order to compete in the ISM bid process, each potential COE must meet several strict criteria. It must—

- Collect historical maintenance data and determine costs attributed to each component of its maintenance

facility to arrive at an accurate hourly labor rate. This process also is known as a site survey.

- Successfully install and transfer maintenance data files using EMIS, or SAMS-1 for active and reserve component military GS maintenance activities.
- Implement a mechanism for tracking evacuation cases.
- Develop and have approved an ISO 9002 (tailored) quality assurance manual within 1 year.

Inspections and Repairs Only as Necessary

A feature of ISM that has proven to be extremely beneficial and cost effective is inspect and repair only as necessary (IRON). Under the IRON repair standard, ISM components are repaired as required to bring them to fully mission-capable status instead of completely overhauling them.

For example, let's say a work order is submitted for a heavy, expanded mobility, tactical truck (HEMTT) engine that cites low compression and low power output. During initial inspection, the engine is cleaned and run on the engine test stand to conduct a diagnostic test. The test shows that cylinders one and three have low compression while the remainder are within specifications. If no other faults are detected, internal engine repairs will focus on replacing piston rings and pistons in cylinders one and three. After those items and various seals are replaced, the engine will undergo diagnostic testing once again. If the engine meets published performance specifications, the work order will be closed and the item returned to the customer that owns it.

Repairing ISM items to IRON standards can save significant amounts of time and money. Some observers do not believe that ISM items repaired to IRON standards last as long as identical items that are completely overhauled, but there is no conclusive evidence to substantiate such a view. Under the ISM business process manual, if an item experiences an initial failure or fails at any time during the next 30 days of operation because of shortcomings in workmanship, the responsible COE will repair and return the item to the owning installation free of charge. Naturally, any negligence or mistreatment by the using unit jeopardizes this warranty.

Increased Number of GS/RX Lines

Installations and states participating in the ISM program can increase the number of GS/RX lines they can have repaired. This is possible because the installation or state can take advantage of the unique repair capabilities of other COE's within the region.

For example, in March 1995 the West Region added Fort Sill, Oklahoma, to its list of COE repair facilities.

Fort Sill possesses many sophisticated repair capabilities for the M109 howitzer and the multiple launch rocket system (MLRS). Because Fort Sill now is the COE for many M109 and MLRS ISM components, other installations can get many expensive items for those systems repaired and returned. In the past, those items had to be purchased from the wholesale level at a much higher cost.

The ISM program has been operating in the West Region for nearly 3 1/2 years. In this time, the number of participating COE's has increased from 3 to 9, with expansion to 12 planned by the end of fiscal year 1998. The number of ISM lines has grown from 65 to 235. With the expansion of both participants and number of lines, the ISM program has amassed over \$25 million in cost savings in the West Region alone. These cost savings are attributed to fewer wholesale buys of GS reparable items and improved repair efficiencies at installation DOL's and reserve component GS maintenance activities.

The ISM program has been at the forefront of Army logistics initiatives. It has been tested in the field and demonstrated to benefit our soldiers. The ISM process has raised the logistics community's awareness of the capabilities and capacities available at GS maintenance activities within CONUS and now is looking at outside CONUS sites. ISM also has provided the means to harness resources and respond to dynamic logistics requirements in peacetime and war. The original goal of ISM, to centralize the planning and decentralize the execution of GS-level repairs, has been accomplished. The logistics community now is working together in a cooperative effort to streamline logistics functions, providing world class support to the commanders in the field. Army doctrinal and procedural policies have been rewritten to reflect the Army's commitment to this logistics business process improvement. Look for these changes in the next update of AR 750-1, Army Materiel Maintenance Policy and Retail Maintenance Operations, and other key logistics publications. **ALOG**

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Power Projection Log

The author chronicles the establishment and operations of the NATO Composite Force, the alliance's only pre-positioned combat force.

At 230 miles north of the Arctic Circle, the days are short and the nights can linger up to 6 months. During the long winter, temperatures average nearly 30 degrees below zero Celsius, and the few roads in the region are often buried deep beneath accumulated layers of snow and ice. Extreme cold weather is the rule—you are only 800 miles from the North Pole. Welcome to Rossvoll, Norway, home of the North Atlantic Treaty Organization (NATO) Composite Force (NCF).

Established in 1988 by Supreme Headquarters Allied Powers Europe (SHAPE) to reinforce the Norwegian 6th Division in Europe's northern region, the NCF is a brigade-sized force multiplier package comprised of an active duty unit from Norway and pre-positioned equipment sets from Germany, the United Kingdom, and the United States. With a Norwegian medium-lift helicopter squadron, a German artillery battalion (105-mil-



istics on the Northern Frontier

by Captain Steven M. Leonard

limeter towed howitzers), a British infantry battalion task force, and an American field artillery battalion (155-millimeter self-propelled howitzers), the NCF represents a powerful deterrent for Allied Forces Northern Europe and a ready response force in times of international crisis.

Background

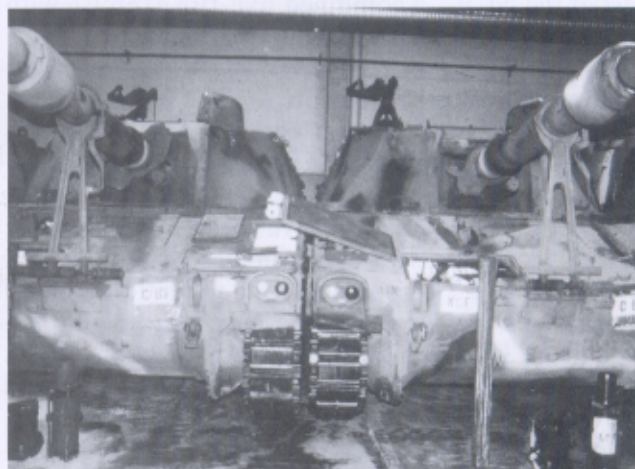
SHAPE's decision to create the NCF resulted from the realignment of a pre-positioned, reinforcing Canadian brigade from Allied Forces Northern Europe to Allied Forces Central Europe. The realignment was announced in 1987, and movement of troops and equipment took place during

the following 2 years. The NATO Military Committee approved a concept plan that proposed that the equipment for the multinational NCF be pre-positioned in Norway.

In June of 1988, the Joint Chiefs of Staff validated the U.S. commitment of a self-propelled artillery battalion. In December of 1989, the Department of the Army identified the Georgia Army National Guard's 1st Battalion, 214th Field Artillery, as the U.S. contribution to the NCF.

Pre-positioning the equipment in Norway was a long, arduous ordeal. The in-theater component command, U.S. Army, Europe (USAREUR), negoti-

□ A convoy march serial is formed outside the storage complex at Rossvoll, Norway (below). A pair of M109A3 howitzers share tight quarters in controlled humidity storage (at right).



ated materiel storage and resourcing through October 1992 with the Norwegian Chief of Defense. Since the requirement for the NCF was established before the end of the Cold War, USAREUR requested confirmation of the mission in August 1993. Once Headquarters, U.S. European Command, validated the mission requirement, USAREUR moved forward with a plan to use pre-positioned stocks configured in unit sets to accelerate positioning of the first firing battery in Norway in time to participate in Arctic Express '94, a NATO exercise that was scheduled for early 1994.

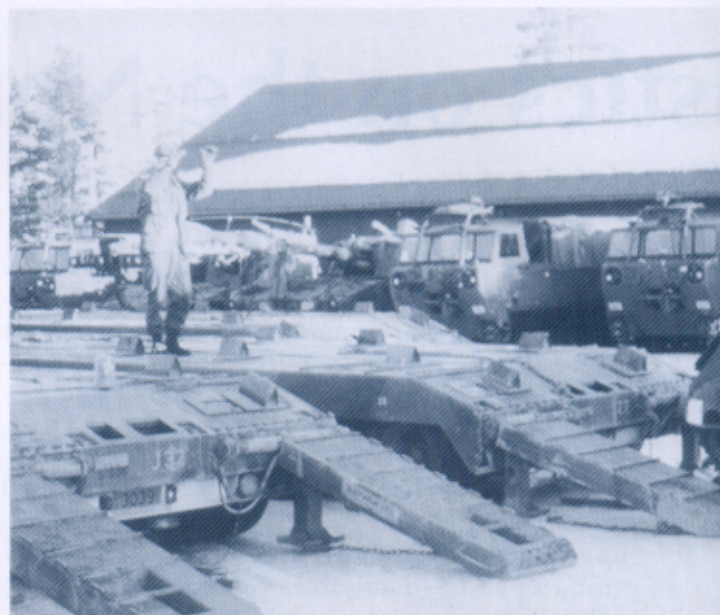
Combat Equipment Group-Europe (CEG-E), then a subordinate command of USAREUR, received the execution order on 12 January 1994 from the 21st Theater Army Area Command (TAACOM) to prepare to ship the first of three artillery batteries by 15 February. Within a month, the group pre-positioned a fully mission-capable self-propelled artillery battery in northern Norway in time for the first crucial test of the NCF—a combined live-fire exercise with the participating NATO partner nations.

Leader in Force Projection

On the heels of prepo afloat, an intense, 7-month effort to pre-position a heavy combat brigade on board ships for quicker deployment response, CEG-E transitioned from a Cold War peak of 4 battalions and 17 companies to a restructured strength of 3 battalions and 7 companies. The transition took 18 months and was probably the most challenging period in the 30-year history of the organization. When the restructuring was complete, the headquarters moved 300 miles north to Kerkrade, The Netherlands, from Mannheim, Germany, and the entire organization shifted from USAREUR to the command and control of the Army Materiel Command (AMC).

In the midst of this transition, CEG-E embarked on its most significant and sensitive mission since the Gulf War. The pre-positioning of the NCF represented an unparalleled level of visibility, both in political and military terms, as well as an unprecedented logistics challenge. With just 36 days remaining to prepare and ship 690 major end items to the port of embarkation, the group directed the 4th Combat Equipment Company (CEC) in Germersheim, Germany, to configure and coordinate movement for the first unit set. By the time the first artillery battery departed the Port of Rotterdam for Norway on 18 February 1994, all but 11 end items in the initial package had been prepared to standard by the work force of the 4th CEC.

Arctic Express commenced on 27 February 1994 in Troms, Norway, and concluded nearly a month later. Unilaterally declared a resounding success by

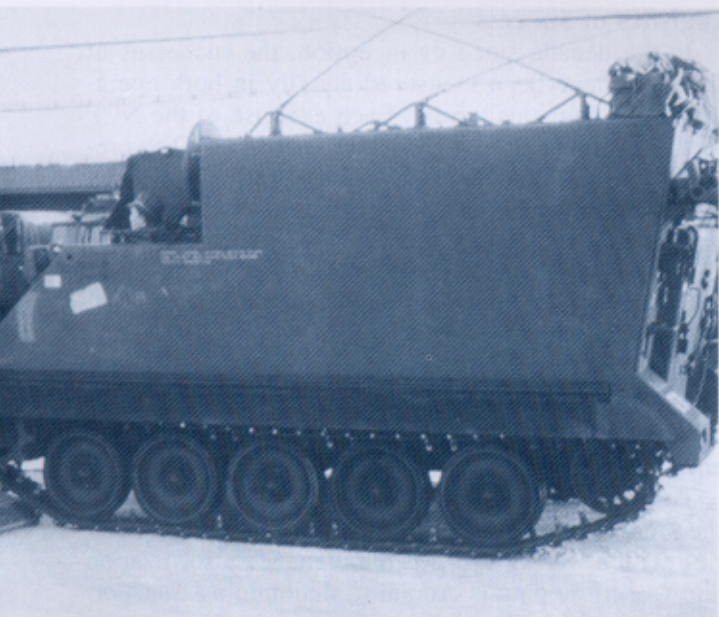


Tracked vehicles are uploaded onto heavy equipment transporters for movement to the live-fire area.

the participating NATO partner nations, the exercise provided an effective demonstration of the capabilities of Army pre-positioned stocks (formerly called Army war reserves).

Less than 2 years later, the Army Chief of Staff called on CEG-E to close a vital gap during the initial weeks of Operation Joint Endeavor. Launching the first U.S. forces into the theater, the Combat Equipment Battalion-South in Livorno, Italy, prepared and issued a tailored equipment set for the 10th Special Forces Group (Airborne) within 48 hours of notification. In the central region, CEG-E deployed three continental United States-based combat engineer companies through the 16th CEC in Zutendaal, Belgium, en route to the Balkans. One of those units, the 586th Engineer Company (Assault Float Bridge) from Fort Benning, Georgia, built the vital return crossing that established two-way traffic over the Sava River between Croatia and northern Bosnia-Herzegovina.

CEG-E's role in establishing and maintaining the U.S. contribution to the NCF was only beginning, however, and two firing batteries remained to be shipped. Efforts to prepare and ship the additional equipment needed to complete the artillery battalion continued through May 1995. Finally, in late June, the second and third firing batteries arrived in Norway, completing the battalion set and setting in motion the planning and preparation for NATO's next combined exercise,



Battle Griffin '96, scheduled for early the following year.

Battle Griffin

After the conclusion of Arctic Express, CEG-E—in its last months of restructuring—transferred property book accountability for the NCF from the inactivating 6th CEC to the 22d CEC in Eysgelshoven, The Netherlands. In September of 1995, CEG-E deployed a team of logistics specialists to Rossvoll to begin the final preparation of the artillery battalion for Battle Griffin. The group incorporated organizational and direct support maintenance Standard Army Management Information Systems into the maintenance operation and created a direct automation link with the supply support activity that was collocated with the 22d CEC. Finally, the team established shop stocks and prescribed load lists (PLL's) for the equipment set and requisitioned the repair parts necessary to fill the PLL's for each of the three firing batteries.

As the team concluded its work in Norway, the group headquarters concurrently reached the final milestone of its own transition process, transferring from the 21st TAACOM to the Industrial Operations Command (IOC) on 1 October 1995. When another team returned later that month to conduct training for the Norwegian personnel managing and maintaining the equipment, they wore the patch of IOC's parent command, the Army Materiel Command. The major Army command change was transparent for the NCF: CEG-E retained operational responsibility for the equipment set and continued to provide command and control any time the battalion headquarters set was issued from controlled-humidity storage.

As NATO forces began to deploy into the former Republic of Yugoslavia in support of the Dayton Peace Accords, preparation of the artillery set for Battle Griffin was nearly complete. Pull-over gauging was performed on the M109A3 howitzers, while a 12-person team assisted the Norwegians with the final upload and maintenance of the equipment. When the communications upload was completed in December, the battalion was at last ready for a thorough test of its capabilities. On 8 February 1996, only 1 week before Battle Griffin '96 began, intensive maintenance efforts finally brought the battalion set to fully mission-capable status.

Battle Griffin '96 was the only live-fire exercise of a pre-positioned artillery battalion in its entirety that has occurred in this century. While reinforcing the NATO commitment to the security of Norway, Battle Griffin was an intense, powerful exhibition of the rapid activation and deployment of an allied marine-air-ground task force. The alliance clearly demonstrated its ability to reinforce Europe's northern region in the event of a regional crisis. The American contingent included over 6,000 soldiers, sailors, marines, and airmen, who were joined by their counterparts from Germany, the United Kingdom, The Netherlands, and Norway.

A total of 21 soldiers deployed from CEG-E in support of Battle Griffin. Working in conjunction with a highly skilled and equally motivated team of Norwegians, this diverse group shattered the previous standard for issuing a field artillery battalion from pre-positioned stocks, handing off three fully mission-capable firing batteries to the Georgia Army National Guard in just 5 hours. In eclipsing a standard that had existed for more than three decades, a relatively small team of exceptional soldiers and civilians echoed the success of CEG-E's support of Operation Joint Endeavor while establishing a firm benchmark for future Army pre-positioned operations.

Adventure Express

Soon after Battle Griffin was over, preparation began for Adventure Express '97, the first full-scale cold weather exercise of the NCF. The exercise involved more than 15,000 American servicemembers and 11 of the 16 NATO partner nations. With only the battalion headquarters and one firing battery issued from storage, Adventure Express was a smaller scale exercise than Battle Griffin. However, the soldiers of CEG-E assumed a far more significant role in Adventure Express than in any previous exercise involving the artillery battalion. While Battle Griffin was an effective

tive "train-the-trainer" operation for the CEG-E team, Adventure Express was executed by the Norwegians with the CEG-E team serving primarily in an advisory capacity.

Three conferences set the stage for Adventure Express: two logistics conferences—one in Oslo, Norway, in June 1996 and another at Camp Ripley, Minnesota, in September—and a final planning conference in Setermoen, Norway, in October. The Minnesota logistics conference refined the exercise timeline and the host nation support agreement while introducing the equipment to the Minnesota Army National Guard's 1/125 Field Artillery. (Georgia's 1/214 Field Artillery had recently upgraded to the M109A6 Paladin howitzers.)

From the outset, Adventure Express differed from any other exercise of the NCF. The involvement of a new drawing unit and having the Norwegians heading up the issue process were little more than planning considerations in contrast to the virtual leap in logistics management that had occurred over the previous 12 months.

For the first time since positioning the artillery battalion set, equipment readiness was not an issue. The maintenance challenges experienced in Exercises Arctic Express and Battle Griffin did not pertain to Adventure Express because equipment serviceability rates now were consistently above the Department of the Army standard. An aggressive logistics management program implemented by the CEG-E project officer, Chief Warrant Officer (W-3) Richard J. Haines, bolstered the existing link between the supply support activity in Eygelshoven and the Norwegian mechanics who actually repaired the equipment. Using express mail, direct line haul, and even the Norwegian supply system to expedite repair parts into the maintenance facility in Rossvoll, Haines achieved significant improvements in readiness over a relatively short period of time.

With the successful implementation of the Unit Level Logistics System-Ground in mid-1996, Haines completed the automated lines of communication among the storage site, the maintenance facility's Standard Army Maintenance System (SAMS-1), and the supply support activity's Standard Army Retail Supply System, eliminating the need to manage the maintenance program offline. The final link with the SAMS-2 site in Kerkrade provided the headquarters with the capability to collect and report real-time readiness data.

The advance party from Minnesota arrived in Norway on 18 February 1997 to begin pre-exercise preparation, with the bulk of the 1/125 Field Artillery arriving in the early morning hours of 25 February following a 24-hour flight delay. Despite their late arrival and fatigue, the Army National Guard soldiers immediately set to work on their equipment. Five hours later, the soldiers had completed the draw phase and were on their way to live fire.

Logistics of Success

In the decade since its inception, the successes of the NCF have been measured equally in both operational and logistics terms. Each exercise of the NCF further demonstrates the capabilities of NATO to preserve and stabilize the peace of Western Europe. With the passing of each year, the execution of the equipment draw becomes smoother.

Configuring and sustaining the Army's only pre-designated pre-positioned stocks was an effort that spanned the full range of multifunctional logistics. Coordinating the on-time delivery of the artillery battalion required proactive planning and aggressive management of the repair and onward movement of the equipment.

As in any production-based operation, orchestrating the requisition and delivery of repair parts in conjunction with a well-developed maintenance prioritization and workflow plan is crucial to maintaining transportation schedules. The delicate synchronization between individual processes is the linchpin to the eventual success or failure of the entire operation.

Ultimately, the logistics behind the NCF predetermine, to a large degree, the fate of each exercise of the defense force. Although the soldier skills and crew proficiency of the units involved serve as the benchmark for gauging combat effectiveness, equipment readiness and logistics responsiveness gauge combat survivability. Success is achieved only if both aspects are present and functioning together.

A testament to peaceful cooperation and resolve, the NCF is also a proving ground for the ever-evolving logistics of war. Few opportunities exist to test and evaluate our capability to provide flexible, innovative forward support in a multiservice, multinational environment. CEG-E's experience with the establishment and support of NATO's only pre-positioned combat force leaves no doubt that the group truly is at the forefront of power projection logistics.

ALOG

Captain Steven M. Leonard is an assistant professor of military science at the University of Montana. When he wrote this article, Captain Leonard was the adjutant of the 16th Combat Equipment Company, Combat Equipment Group-Europe. He graduated from the University of Idaho and holds a master's degree from Murray State University in Kentucky. He is a distinguished graduate of the Ordnance Officer Advanced Course and a graduate of the Combined Arms and Services Staff School and the Air Assault School.

The DISCOM Role in Synchronizing Support

by Major Charles B. Salvo

Synchronizing sustainment operations is a team effort that involves personnel from all battlefield operating systems (BOS) and all combat functions in the division rear area. Tactical maneuver plans drive sustainment operations, so changes to those plans often result in changes affecting all BOS areas and combat functions. Successfully implementing changes requires "resynchronization" of sustainment operations, and the organization in the division rear area that should take the lead in synchronizing sustainment operations across the division is the division support command (DISCOM).

The DISCOM can't synchronize sustainment operations alone, but it is the organization best resourced to lead the synchronization process in the division rear area. This is because the DISCOM commander can call on the talents and resources of a brigade S3 section (with a plans officer, support operations officer, and movement control officer), a division materiel management center (DMMC) section, and a division medical operations center section.

I'd like to present some thoughts on the DISCOM role in synchronizing sustainment operations, focusing on the process of synchronization and how to incorporate all elements and sections in the division rear area into that process.

DISCOM Synchronization Matrix

A synchronization matrix is an effective tool that can be used to facilitate the synchronization process and record its results. One can read a synchronization matrix at a glance and determine the critical tasks associated with key sustainment missions without having to read through the volumes of pages in operation orders, operation plans, annexes, and appendices. A synchronization matrix must be designed to show specifically what is required in order to synchronize sustainment operations; it must show specific missions at a specific level of detail. (An example of the 10th DISCOM's sustainment synchronization matrix is shown at the top of the next page.)

When designed correctly, a synchronization matrix will drive the synchronization process. Regardless of its specific purpose, a synchronization matrix should be designed to include the following features—

Time. A synchronization matrix should be divided into segments that break down the phases of an operation into

distinct time periods. More importantly, all times must be synchronized (D-day, C-day, H-hour, M-hour, P-hour). The matrix should not change the division's tactical phases; it simply should use the existing division phases and break them down into manageable periods. This is an important step in designing a synchronization matrix because it gets everyone operating on the same sheet of music.

Enemy. The matrix should list pertinent enemy events (both planned or confirmed) that may affect sustainment operations. The division rear G2 is responsible for updating this portion of the synchronization matrix, but all sections are responsible for identifying the impact of enemy events on their specific areas in the overall sustainment mission.

Maneuver. Tactical maneuver plans drive sustainment operations. A sustainment synchronization matrix must list critical maneuver events by phase (deep, close, and rear) in order to effectively synchronize sustainment operations across the division. The division rear G3 plays a critical role in updating this portion of the synchronization matrix.

BOS and combat function representatives. Synchronization is a team effort. BOS and combat function representatives in the division rear area are experts in their areas and must be included in the synchronization process, so they must be listed in the matrix. Each BOS and combat function representative in the division rear area is responsible for updating his specific portion of the synchronization matrix.

Concept of support and decision points. The division's concept of support and specific decision points must be incorporated into the synchronization matrix so all representatives have a common understanding of critical sustainment missions and the triggers for their execution. This information enables representatives to anticipate requirements in the overall sustainment support mission. The DISCOM S2/3 is responsible for updating this portion of the matrix.

Classes of supply, services, medical support, maintenance, and transportation. Incorporating this information into the matrix provides structure and ensures that all support areas are covered during the synchronization process. The DMMC chief is responsible for this portion of the matrix.

Move. All methods of distribution should be listed. This portion of the matrix, which is updated by the DISCOM movement control officer, aids in deconflicting sustainment operations across the division.

A well-designed sustainment synchronization matrix will prove to be an effective tool in driving the synchronization process. It is important to "put the effort up front" when designing a synchronization matrix to attain the desired level of detail needed to support a division. What is left off the synchronization matrix probably won't get synchronized in the heat of the battle.

Initial Sustainment Synchronization (Planning)

Information incorporated into an initial synchronization matrix is the product of detailed planning (through the deliberate decision making process), coordination, and synchronization. An initial synchronization matrix should be as accurate and detailed as possible. It should be the "80-percent solution" to take into the fight.

The precursor to sustainment planning is a detailed logistics estimate, which is a product of mission analysis. The DISCOM logistics estimate is updated continuously and refined during the planning process. The DMMC chief will increase the accuracy of the logistics estimate as units submit their initial logistics status reports, and the DISCOM plans officer (or support operations officer) will refine the estimate further when he coordinates directly with other units (major subordinate commands and separate battalions). An accurate logistics estimate places the process of sustainment planning on a sound foundation.

The DISCOM plans officer uses the logistics estimate when conducting parallel planning with the division operational planning group. After parallel planning is completed, the DISCOM plans officer returns to the DISCOM with a sound understanding of the division's tactical plan. The DISCOM staff then executes the deliberate decision making process, develops a concept of support, and begins to synchronize that concept with supported units across the division.

A detailed and coordinated distribution plan is critical to synchronizing sustainment operations. Redundant methods of distribution (which must be included in a concept of support so the commander doesn't "put all his eggs into one basket") must be deconflicted and coordinated during initial planning; this is especially important for fixed-wing resupply. An effective technique to deconflict distribution plans is to organize a matrix for each class of sup-

DAY/TIME	SATURDAY (2100) TO SUNDAY (2000)	SUNDAY (2100) TO MONDAY (1800)	MONDAY (1800) TO TUESDAY (1800)
PHASE	PHASE I	PHASE I	PHASE I
DATE	05 APRIL TO 06 APRIL	06 APRIL TO 07 APRIL	07 APRIL TO 08 APRIL
H-HOUR	H-48 TO H-24	H-24 TO H-1	H-1 HOUR TO H+24
ENEMY ACTION			
D E F			
C L O S S E	1 BDE 2 BDE MEC TF		
R E A R			
INTEL			
FIRE SUPPORT			
AIR DEFENSE			
N/C/M/S			
BATTLE CMD			
DECEPTION			
MPs			
CONCEPT OF SUPPORT			
DECISION POINT			
CLASS OF SUPPLY			
CLASS I			
WATER			
CLASS II			
CLASS III (P)			
CLASS III (B)			
CLASS IV			
CLASS V			
CLASS VI			
CLASS VII			
CLASS VIII			
CLASS IX			
CLASS X			
MEDICAL			
MAINTENANCE			
FIELD SVCS			
MOVE			
ROTARY WING			
DISTRIBUTION			
FIXED WING			
DISTRIBUTION			

ply, medical support, maintenance, and services by phase (see an example above right).

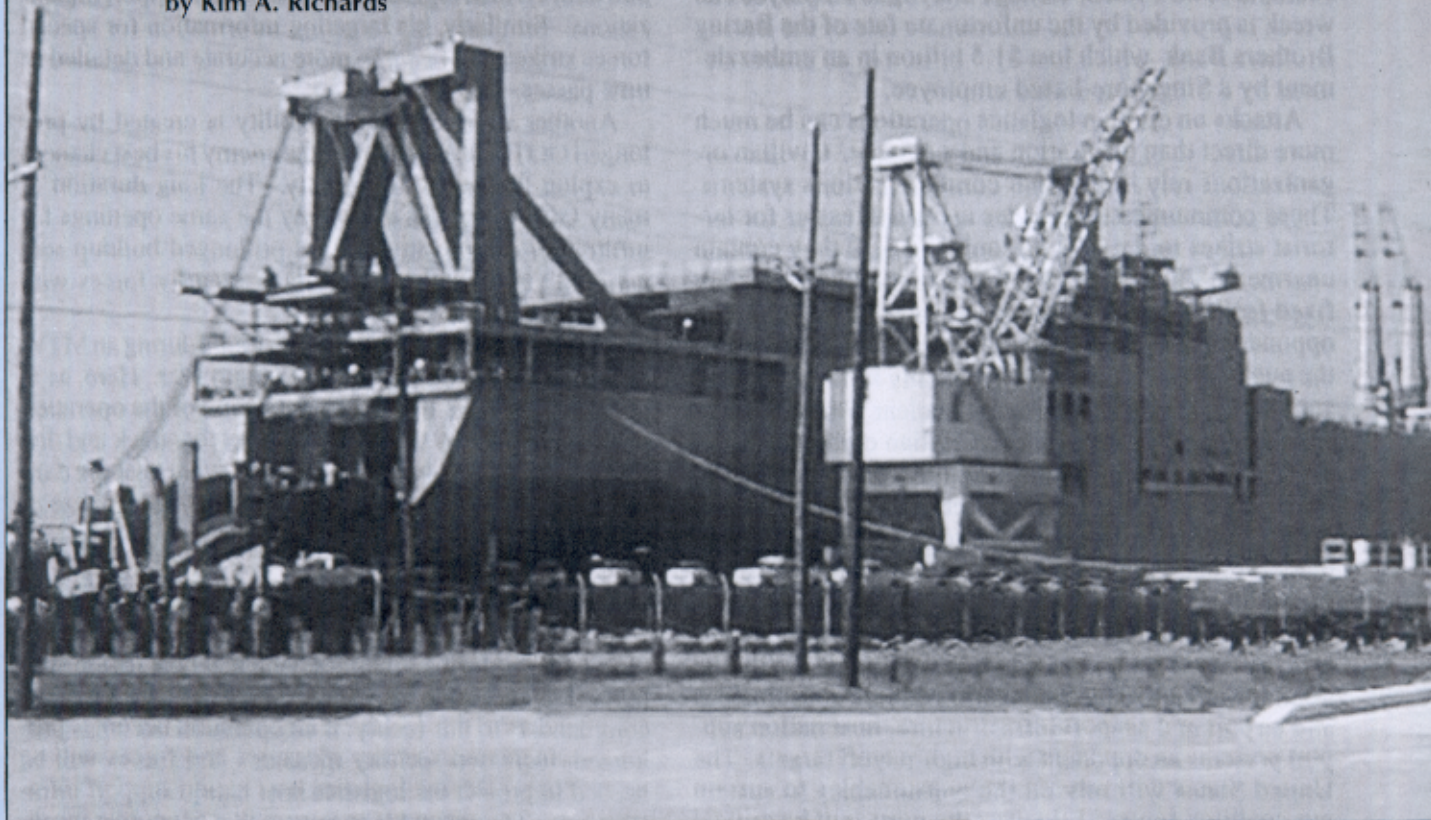
Synchronizing Sustainment Operations

Synchronization meetings are used to facilitate the process of sustainment synchronization. To lead all BOS and combat function representatives through the synchronization process, the DISCOM must—

- Provide hard copies of the most current sustainment synchronization matrix to all representatives participating in the process so that everyone is operating with the same information.
 - Update the logistics situation map (which is used to conduct synchronization meetings) to ensure that the combat service support overlay is current and shows such features as main supply routes (MSR's), alternate supply routes, dirty routes, pickup zones, landing zones, drop zones, field landing strips, ammunition transfer points, ambulance exchange points, logistics release points, engineer forward supply points, and first destination reporting points (FDRP's).
 - Provide a clean, or "sterile," copy of the sustainment synchronization matrix (blown up to butcher-board size) to record changes made in the meeting.
 - Conduct a roll call of meeting participants and lead the synchronization process.
- Synchronization meetings are conducted twice daily

Prepo Afloat: Key to Power

by Kim A. Richards



The Army can position a heavy fighting brigade—consisting of 123 M1 Abrams tanks and 60 M2 Bradley fighting vehicles, a supporting artillery battalion, an engineer battalion, and air defense and support forces—in a potential crisis area anywhere around the globe in a matter of days. This capability, unparalleled by any other nation in scope or combat power, is the result of the Army Pre-positioned Afloat (APA) program. Although it is still evolving, the APA program is on track and already has demonstrated logistics success.

Pre-positioning provides worldwide logistics services to the unified commands in support of the Army's power projection strategy. The APA program is designed to store Army vehicles, equipment, and supplies aboard Navy-owned or commercially leased ships in strategic locations throughout the world. When units deploy by air to a specific destination, they will meet the pre-positioned equipment, which will have arrived at the same location by sea. The advent of the APA program has enhanced the Army's ability to get heavy forces on the ground quickly.

The Army's afloat set, called Army Pre-positioned

Set-3 (APS-3), contains materiel for two tank battalions and two mechanized infantry battalions of tremendous combat power, critical sustainment for the brigade, additional corps sustainment assets, and port-opening equipment. This materiel currently is placed aboard 12 ships stationed at Guam and in the Indian Ocean. These ships are capable of docking at improved ports anywhere in the world and deploying combat forces to close on tactical assembly areas in 15 days. By the time the APA program completes its expansion in fiscal year 2002, the Army will have pre-positioned 2 million square feet of materiel in support of power projection.

Prepo Afloat: Needed for Power Projection

Since 1991, the Department of Defense (DOD) has conducted a host of force structure reviews designed to achieve significant adjustments in our forces, procedures, and organizations. The Base Force Review, the Bottom-Up Review, the Commission on Roles and Missions of the Armed Forces, and, most recently, the Quadrennial Defense Review investigated the global security environment following the end of the Cold War and determined that the world remains a

Projection

Pre-positioning equipment and supplies on ships near overseas theaters is crucial to executing the strategy of power projection from the United States. The Army's role in this mission is growing.



□ The *USNS Shughart*, a Navy large, medium-speed, roll-on-roll-off (LMSR) ship, awaits uploading of its cargo at Charleston, South Carolina (left). The *Shughart* was the second of five converted LMSR ships that will be uploaded with equipment for the Army Pre-positioned Afloat program. Above, rows of vehicles wait on the Charleston docks before rolling on the *Shughart*.

dangerous and highly uncertain place. In addition to considering the global security environment, each review also examined U.S. defense needs in order to devise a strategy-based, balanced, and affordable defense program. All of the reviews endorsed the concept of robust pre-positioning of stocks afloat and the development of large, medium-speed, roll-on-roll-off (LMSR) ships to execute that mission.

As the world situation and the role of the U.S. military change, so does the Army's method for getting troops, equipment, and supplies to the battlefield. The end of the Cold War, a decline in personnel and resources, and the advent of new doctrine and technologies are driving the Army to transition from a forward-deployed force to one that is based in the continental United States (CONUS) but is capable of projecting appropriate forces anywhere in the world. Pre-positioning equipment, supplies, and munitions afloat supports the warfighting requirements of the combatant commanders in chief (CINC's) by ensuring rapid delivery of war reserve materiel to them.

Pre-positioning of war reserve equipment afloat speeds response to the CINC's by overcoming two fundamental deployment problems. First, pre-positioning

reduces reliance on relatively slow sealift deliveries from CONUS to overseas theaters. Second, pre-positioning avoids the high cost of the large airlift required to deliver sizable quantities of unit equipment in time to meet a CINC's needs.

The Army has been in the business of positioning critical combat equipment and sustaining supplies on ships to support deploying soldiers for several years. The concept of using afloat stocks as a critical force deterrent blossomed during Operation Desert Storm. Since that time, the Army has expanded the APA program from 4 ships carrying general supplies to 14 ships carrying 870,000 square feet of cargo.

At the request of Congress, DOD conducted the Mobility Requirements Study in 1992 to define future mobility requirements in light of the revised National Security Strategy, force reductions, potential security threats, and lessons learned from the Persian Gulf War. The objective of the study was to determine the capabilities of the strategic mobility forces programmed by DOD to deploy and sustain combat and support forces, identify shortfalls in those capabilities, and recommend solutions to eliminate the shortfalls. The study concluded that DOD needed to pre-position more heavy

combat capabilities. The pre-positioning of those capabilities is needed to meet the national military objectives to stop enemy advances early, reduce risks, and speed the successful conclusion of major contingencies.

Prepo Afloat: Already A Success

The APA program is working. Since its inception, the Army has consistently demonstrated its ability to provide heavy combat power to meet regional contingencies in less than 48 hours. Operations Vigilant Warrior and Vigilant Sentinel are examples of the program's success. Vigilant Warrior was an exercise conducted by the U.S. Central Command (CENTCOM) in 1994 to provide for the defense of Kuwait against renewed Iraqi aggression. Vigilant Sentinel, which began in 1996 and continues today, is conducted to deter potential aggression in the CENTCOM region.

During these exercises, five LMSR ships were downloaded in Southwest Asia to support the operation. The downloaded equipment was reconfigured into four battalion task forces, each composed of two tank companies and two mechanized companies, and a forward support battalion. The battalion task forces were reorganized and placed on four ships, one on each ship. This allowed greater flexibility for employing the equipment by allowing the warfighter to offload individual ships, complete with all supplies needed to support the battalion. Supplies on the remaining LMSR ships then could be offloaded or left on the ships for further deployments as determined by the commander. Ship discharge packages also were developed to provide additional materials-handling equipment to facilitate offloading operations. The use of this equipment significantly enhanced CENTCOM's military-to-military cooperation with the armed forces of host nations.

Prepo Afloat: Still Growing

Several initiatives aimed at improving the readiness of Army equipment pre-positioned afloat are ongoing. A multistage sealift modernization program will improve equipment readiness by transferring equipment from existing ships to newer and larger vessels specially designed to store cargo at sea. These transfers will be complete by fiscal year 2001. As equipment is moved between ships, it will be modernized and maintained in like-new condition, thereby improving the Army's combat capability in virtually any part of the world.

By 2003, the APA program's modernization and expansion efforts will provide the Army with 2 million square feet of cargo on 15 new or reconditioned ships. This set of ships will include eight LMSR vessels,

two container ships, two ammunition ships, two heavy lift ships, and one crane ship. This enhanced ability will allow the Army to land eight heavy combat brigades in response to any regional contingency.

The Army continues to invest in its sealift capability so it can support mission milestones into the next century without having to depend on foreign shipping. Over the past year, five Navy LMSR ships have been named for Army Medal of Honor recipients and are being prepared for pre-positioned afloat missions. These LMSR ships are a series of Navy transport ships that provide greater power projection capabilities to deal with post-Cold War and projected 21st century contingencies in support of the Army Vision 2010 strategy. These ships provide the critical combat equipment that allows Army forces to deploy rapidly for contingencies and humanitarian efforts worldwide.

The first of these converted and reconditioned Navy LMSR ships, the *USNS Gordon*, named for Army Master Sergeant Gary Gordon, was uploaded in February 1997 at the Combat Equipment Base-Afloat in Charleston, South Carolina, the Army's primary maintenance facility for cargo uploaded on pre-positioning ships. Laden with Army equipment, ships like the *Gordon* will provide flexibility and help U.S. defense planners to meet contingencies worldwide. The pre-positioning of equipment aboard the *Gordon* and its sister ships provides the United States with a nonintrusive forward presence in key areas around the world. The *USNS Shughart* was the next LMSR ship uploaded, in June 1997 in Charleston, followed by the *USNS Yano* in October 1997. The *USNS Gilliland* and *USNS Soderman* are scheduled to be uploaded in fiscal year 1998.

Although the threat of global war is diminishing, the Army must still be prepared to project its capabilities rapidly and effectively from the United States to any location where U.S. interests may be threatened. The ability of U.S. combat power to influence world events depends on the ability to arrive in time to make a difference. The Army Pre-positioned Afloat program will continue to rely on APS-3 ships to deploy Army equipment rapidly for contingencies and humanitarian efforts worldwide. **ALOG**

Kim A. Richards is a logistics management specialist with the Office of the Deputy Chief of Staff for Logistics, Department of the Army. She is the primary action officer for the Army's Pre-positioned Afloat Program. She has a bachelor's degree in English and biology from Heidelberg College and is pursuing a master's degree in business and technology administration.

How to Fail at the NTC

by Captain John E. Chapman

Not every rotation to the National Training Center is a success for the participating unit. The author presents an interesting twist on the conventional "how to succeed" guidelines by listing the ABC's of "how to fail."

The November-December issue of Army Logistician contained an article about the 32d Transportation Company's training rotation at the National Training Center (NTC), Fort Irwin, California. As an observer-controller at the NTC, the author of the following article saw many training experiences that were less successful than the one Lieutenant Dean Dominique described. A number of common denominators emerged from those unsuccessful rotations; so many, in fact, that the author has developed an A to Z primer on why logisticians fail at the NTC.

—Editor

Anticipation

Sixty percent of the art of command is the ability to anticipate; forty percent of the art of command is the ability to improvise.

—Brigadier General S.L.A. Marshall

Logisticians provide customers only with what they want. They do not plan for nor provide what they anticipate customers will need. Because of their limited understanding of the maneuver plan, logisticians fail to anticipate the logistics implications of tactical developments. They do not anticipate the probability of tactical events and how they will respond to those events. They do not build logistics decision points. Without planned decision points, a simple plan, and an accurate perception of the battle-

field, logisticians cannot have aggressive anticipation and initiative.

Basic Leadership

Men will not have confidence [in a leader] unless he knows his business, and he must know it from the ground up.

—Major C.A. Bach

Leaders lack the self-discipline to do what they know they should do. They do not enforce standards. They do not lead by example.

Leaders fail to enforce known standards consistently. The less popular the standard, the less consistently they enforce it. They do not lead by example. They do what is easy, not what is right. They do not have a fighting position. They do not clean their personal weapons nor camouflage their vehicles.

Leaders do not issue timely orders or fragmentary orders. They ignore troop-leading procedures. They are seldom at the critical time and place. The command and signal paragraphs of the operation order list their location as "the command post." This ends their anticipation of the critical time and place.

Common Sense

Common sense to an uncommon degree is what the world calls wisdom.

—Samuel Taylor Coleridge

Common sense is less than common, both tactically and logistically. Units without tactical common sense conduct patrols only during the night-vision goggles window. They restrict the use of flares and star clusters to first sergeants and above. Triple-strand concertina wire is flanked by units installing only single strand. The gate guard works alone and without communication. The listening and observation post goes to the precise grid designated by the S3, although he cannot see his assigned sector from there.

Lack of logistics common sense results in the same fuel forecast every day, bulk fuel assets located uphill from casualty collection points, and blood resupply stored with vehicle repair parts at the class IX point.

Discipline

You cannot be disciplined in great things and undisciplined in small things.

—General George S. Patton, Jr.

Leaders neither practice nor enforce discipline. They do not check and approve critical actions personally. Senior noncommissioned officers do not train and supervise their subordinates. As a result, not a single fighting position is built to standard; telephone wire is not strung to the tactical operations center (TOC) or subordinate units. Concertina wire is not emplaced according to any standard or time line.

Logistics support has no systematic enforcement of standards. Soldiers learn from habit and example. Weak leaders and bad examples are reflected in the rank and file. Soldiers do not know or follow the battalion standing operating procedure (SOP). Therefore, they have incomplete chemical protection equipment, dirty weapons, and dead batteries in their night-vision goggles.

Engineer Assets

Engineers work to time, not to standard.

—Captain John E. Chapman

Engineer assets are not used to the fullest possible extent. Leaders do not know the required standard for logistics field fortifications. Neither does the young bulldozer operator. His available time is squandered. Soldiers are left with incomplete and useless fortifications. Only fuel tanker hub caps are protected by 4-foot-tall berms, leaving the top of the vulnerable fuel cell exposed for quick destruction. The command bunker is shallow and poorly situated. Crew-served weapon positions are in the wrong place, at the wrong angle, and bear no resemblance to the S3's chart. The patient hold tent has no berm to protect litter patients. The explosive ordnance disposal team has no bunker for storage of its explosives. No leader checks. No leader knows.

Flexibility

Sensible initiative is based on an understanding of the commander's intention.

—Soviet Army Field Service Regulations, 1936

Plans are incomplete, and subordinate leaders are not flexible enough to meet the unforeseen need or threat. Flexibility requires initiative. Initiative implies straying from the written plan, and that incurs risk. The command climate is "risk averse."

The publication of a vague and thoughtless "commander's intent" is merely a pre-game ritual, not the critical foundation on which flexibility and initiative are built. Strict adherence to a plan, rather than aggressive personal initiative, is rewarded.

Go to the Sounds of the Guns

You're not the leader if you're not there at the critical point. You've got to find the critical point and be there.

—Lieutenant General Willard W. Scott

Leaders are not at the critical time and place. They do not even consider what that critical juncture may be. They routinely assume that the critical place is the temperature-controlled atmosphere of the battalion tactical operations center (TOC) or the folding chairs in the company command post.

Home Station Training

Nothing is stronger than habit.

—Ovid

Home station training is not prioritized by what should be accomplished routinely in the field. Training actually conducted is not evaluated by any objective standards of performance, tactical standing operating procedures, mission training plans, or soldier's manual of common tasks.

Intelligence Preparation of the Battlefield

You will usually find that the enemy has three courses open to him, and of these he will adopt the fourth.

—Helmuth von Moltke

Intelligence preparation of the battlefield is ill-defined, poorly distributed, and seldom used. Leaders do not know what they need. They cannot define what they want. They do not complain about what they get.

The logistician's S2 provides a warmed-over version of the brigade estimate to the commander and fails to consider the natural lines of drift or dismounted avenues of approach to the support area. He does not anticipate the ability of the enemy to defeat the logistics mission or the enemy's most likely or most dangerous course of action in the brigade rear area. These items are not considered because they are not part of the brigade's intelligence estimate, and logisticians fail to develop their own.

Jump Tactical Operations Center

The headquarters exists only to provide the commander the information and communication he needs to act decisively.

—Captain John E. Chapman

The jump TOC has no standards for configuration, manning, or procedures. It has no standard time line for short- or long-term establishment and no system to monitor the battle or subordinate unit movements. There is no battle hand-over line where control of moving units passes to the jump TOC. Battle tracking is not standardized and rehearsed. Old graphics are on the map board, and old data are on the wing-board charts. The jump TOC is not staffed to replicate the TOC, nor is it operated as if it may have to.

Killed in Action

All lives are equal on the battlefield, and a dead rifleman is as great a loss, in the sight of God [and his family], as a dead general.

—General Matthew B. Ridgeway

Leaders take no personal responsibility for the lives and physical condition of their soldiers. They spend hours preparing for a maintenance meeting, but do

not inspect the execution of their orders and tactical standing operating procedures. Soldiers die.

There is no comprehensive plan for clearing the battlefield of casualties. Casualty collection points are established at the discretion of subordinates. Loaded trucks are designated for nonstandard casualty evacuation. Current status of critical medical supplies is not reported. Medical resupply is not planned. Casualties die.

Senior leaders do not ensure that casualties are accounted for, cared for, or memorialized properly. They task junior leaders, or worse, the S1, to prepare sympathy letters to the families of killed or wounded soldiers. Letters that do not rate a personal inspection by the commander, command sergeant major, or first sergeant frequently are never written. Families are disregarded.

Leaders never visit the mortuary affairs collection point to view the results of their poor planning, late orders, and lack of personal responsibility, because their senior rater does not grade them on losses; only the families will.

Leadership

The Army makes you a commander. Only your soldiers can make you a leader.

—Captain John E. Chapman

The darker the night, the colder the rain, and the greater the wind, the less willing leaders are to get out of the command post to see what is going on and to be seen by their soldiers. Poor leadership results in fighting positions that exist only on the sector sketch, crew-served weapons that are too dirty to fire, and ammunition that is distributed late and not according to plan. That's why maintenance status disk submission is not important and the issue matrix is not used at the class III bulk point. Subordinate units have a spades or dominoes tournament in the field while their fighting positions remain unfinished.

Maintenance Meetings

Another flaw in the human character is that...nobody wants to do maintenance.

—Kurt Vonnegut

The maintenance meeting is reactive. This meeting is not truly important until critical equipment is not mission capable. The foundations of effective maintenance meetings are disregarded. Missing a disk submission does not result in a public flogging. Disk turn-in and transfer is not synchronized, supervised, or enforced, resulting in a meeting without current parts status. Parts written in on the automated "deadline" report outnumber those on the computer print-out.

The maintenance meeting is not a disciplined system but the result of a series of desperate emergen-

cies. There is no agenda or time line. People do not know in advance what they must brief and what products they must supply. The authorized stockage list is not used during the meeting to ensure that maintenance officers leave the meeting with needed parts when possible. Confirmation briefs are not used to ensure understanding and compliance.

NCO Leadership and Expertise

Any officer can get by on his sergeants. To be a sergeant you have to know your stuff. I'd rather be an outstanding sergeant than just another officer.

—Gunnery Sergeant Daniel Daly

Noncommissioned officers (NCO's) are used as clerks. They are not part of the planning process and have little to do with the execution of plans, orders, and tactical SOP's. They do not enforce routine operations so other leaders will have time for present, future, and contingency planning.

The command sergeant major is uninformed and unimportant. His advice, insight, and counsel are not sought by commanders. His displeasure is not feared by officers, NCO's, or soldiers. His primary concern is the cleanliness of the trash point.

Operations Centers

Nothing helps a fighting force more than correct information. Moreover, it should be in perfect order and done well by capable personnel.

—Ernesto "Che" Guevara

The TOC has no system and no standards. Information is managed poorly. Intelligence development is a product of chance. The staff demands little information from higher units, gains little from its own sources, and passes nothing to subordinates.

Battle captains do not know the order, the plan, or their responsibilities. The commander does not delegate authority to them clearly. He does not support publicly their use of authority.

The battle captain is often the least experienced officer or NCO on the staff. He accepts and passes information without analyzing or reacting to it. He conducts poor shift changes that key leaders fail to attend or inspect.

Battle tracking is delegated to a junior soldier who does not understand the deadly difference between the FSE (forward security element of enemy formations) and the FSB (forward support battalion). Leaders can read the combat service support overlay but not the maneuver overlay. The little situational awareness that survives in the battalion TOC is not passed on to subordinate commanders.

Charts and overlays are out of date. Orders are not routinely posted and distributed. The TOC, which

should be as clean as an operating room and as quiet as a church, is as confusing as Mardi Gras.

Planning

Long-range planning does not deal with future decisions, but with the future of present decisions.

—Peter Drucker

Leaders fail to plan continuously. They do not combine intelligence and doctrinal templates with anticipation and experience to get inside the enemy's decision cycle for the *next* mission.

The commander and the S3 do all of the actual planning. They exclude subject matter experts in the field trains, slice elements, and their own staff. The resulting plan is reactive to the brigade or battalion order rather than anticipatory of missions to come. Their focus is only on the present mission and the near battle.

Quick Reaction Force (QRF)

The defender cannot afford to lose a single engagement; the attacker usually can

—Unknown

The QRF mission and manning are not based on the threat assessment. Its anticipated missions are not part of the battalion or company order. Its manning and arming are the same for a single intruder as for a tank platoon.

The QRF has no standard missions and no standards for missions. It does not rehearse movement to an objective. It is unfamiliar with clearing the enemy from the unit area. It does not use recognition signals known to the entire unit to avoid fratricide. It has little communication and no casualty evacuation plan.

The executive officer and S3 delegate authority and responsibility for the QRF to a junior staff officer or NCO. The last best hope of defense and survival is assigned to a leader whose only recommendation for the job is his availability.

Routine

We are what we repeatedly do. Excellence, then, is not an act but a habit.

—Aristotle

Routine things do not happen routinely. A leader's precious time is consumed with tasks that would be transparent in a more disciplined unit. Work priority is unknown and unimportant. This results in sleeping tents erected before unit security is established, camouflage that takes days to complete, and wire communication that never happens.

Reports are infrequent, undisciplined, and mislead-

ing. Spot reports do not follow the standard format. Logistics reports are late and incorrect. Convoys leaving or arriving do not bother to report.

Risk management is a 50-percent solution. The risk is there, but not the management. Commanders are not involved personally in the daily risk assessment and management plan. Subordinate unit risk assessments are not incorporated routinely into those of higher units. Leaders adjust their assessments to avoid a high risk rating, because no one wants to brief the brigade commander on such a mission.

Standards

Standards must be simple, known, and enforced ruthlessly.

—Captain John E. Chapman

Leaders do not enforce standards. Extensive paper standards are established, but nothing merits the personal attention of leaders. Therefore, nothing is done to the paper standard.

No fighting position in the entire unit is built correctly. No hole is dug properly, even when engineers dig the majority of it. Only one misshapen hole in the entire battalion enjoys overhead cover. It is protected by half a ton of poorly constructed plywood and sandbags that later collapse. Blank range cards are dutifully placed beside dirty machineguns on rusty tripods.

Leaders do not establish and enforce known standards for preventive maintenance checks and services (PMCS) of equipment. There is no supervisor involvement.

Leaders do not use a PMCS submission matrix to ensure that all vehicles actually are inspected. They applaud subordinates' PMCS submission rates without noticing that none of the deficiencies reported is automotive. In fact, none of the deficiencies noted requires actually looking under the vehicle.

Troop-Leading Procedures

You can ask me for anything you like, except time.

—Napoleon Bonaparte

Troop-leading procedures maximize parallel planning and preparation time. They allow subordinates time for inspections and rehearsals and provide a structured method to prepare for missions. However, logisticians rarely use the procedures.

Unity of Command

Nothing is so important in war as an undivided command.

—Napoleon Bonaparte

Tactical logisticians do not have unity of command. The field trains and slice elements have no interest,

obligation, or true command relationship with the FSB commander. Their participation is sporadic and superficial. They are not integrated fully into the orders process, reporting system, or defense plan. They do not know the FSB tactical SOP and do not care to know.

The support operations officer does not know when the field trains' logistics elements go forward or return. The FSB S3 does not brief or debrief field train convoy leaders to develop intelligence or warn of a changing battlefield.

Visibility and Assets

What I want to avoid is that my supplies should command me.

—Jacques Antoine Hyppolite

Logisticians do not know what they have. They are unaware of what is on hand, what is inbound, or what is obligated. Updating of charts is not enforced ruthlessly at regular intervals. Asset balances are not revised when significant changes occur. Charts in the company command post, battalion TOC, and support operations TOC do not match each other. None of the charts is actually correct.

The soldier at the issue point does not know the issue control plan. Valuable assets disappear on a first-come-first-serve basis with no regard for the issue matrix or the commander's priorities.

Written Orders

An order that can be misunderstood will be misunderstood.

—Helmuth von Moltke

Commanders actually believe that what is published will be executed as intended. Their intent is unknown, however, because their orders are incomplete, unclear, or late. Their intent is unclear because no one proofreads the complete order. No single individual integrates the efforts of many contributors to the order.

Their incomplete orders list critical information as "to be published" or "to be determined." They list annexes that are not included. The current order is a cut-and-paste copy of the last. It has all the errors of the last order as well as some new ones.

Orders are late because leaders fail to establish a time line or fail to plan their time line in conjunction with the battle rhythm. Leaders fail to demand the participation of specialty staff members and slice unit experts in the orders process.

Planners begin with a deliberate planning process, then slip to an abbreviated process. The lack of a time line drives them to a desperate planning process.

Xpect Changes

There is nothing permanent except change.

—Heraclitus

No plan survives intact, yet logisticians fail to prepare for maneuver unit flexibility. The combat service support order does not incorporate execution matrices or logistics decision points to flex logistics support as necessary to maintain combat power.

Your Tactical SOP

The SOP is not a tool; it's an endless hobby.

—Captain John E. Chapman

The tactical SOP is dated within 30 days of deployment. The only person who actually knows what it says is the one who recently wrote it. The changes from the last edition are not highlighted. Users must read the entire volume to find out what has changed, assuming, of course, that they actually read the previous edition. Soldiers do not read it.

The SOP has too much detail about too many possible situations, which makes it too big for soldiers to carry. The pocket edition is no more than a microscopic version of the original. A jeweler's loupe is needed to read it. Soldiers do not use it.

Zzzz—Sleep Plan

There are more tired corps and division commanders than there are tired corps and divisions.

—General George S. Patton, Jr.

Leaders have no concept of "the eleventh class of supply" (sleep). The unit sleep plan is a paper drill that key personnel neither participate in nor enforce. They routinely remain awake as long as possible in order to make a few more fatigue-clouded decisions before succumbing to exhaustion. Unfortunately, subordinates learn from their leader's example.

I hope these ABC's of failure will help logisticians and units at the National Training Center (or anywhere else) to examine past failures so they will know how to avoid them in the future. In any scenario, that knowledge could be the difference between living and losing.

ALOG

Captain John E. Chapman is an instructor for the Army Logistics Management College's Combined Logistics Officer Advanced Course at Fort Lee, Virginia. When he wrote this article, he was an observer-controller at the National Training Center, Fort Irwin, California. A Quartermaster Corps officer, he was commissioned through Officer Candidate School.

A Commandi

The authors
propose some changes
to modernize
staff organization.

As the Greek philosopher Heraclitus observed in 500 B.C., "Nothing endures but change." Change is the one constant in the Army. Over the years, changes have occurred in every aspect of the force—every aspect, that is, except for one: the staff. Changes in this area are required now. We propose that the staff be transformed into a "commanding battle staff."

To understand what we mean by a commanding battle staff, we first must understand the concept of "battle command," which is defined in TRADOC Pamphlet 525-5, Force XXI Operations—

The art of decision making, leading, and motivating soldiers and their organizations into action to accomplish missions: includes visualizing current state and future state, then formulating concepts of operations to get from one to another at least cost; also includes assigning missions, prioritizing and allocating resources, selecting the critical time and place to act, and knowing how and when to make adjustments during the fight.

A commanding battle staff is the competent and confident team that allows the commander to be a practitioner of battle command. This means that the staff is truly an element of command, alongside the commander. Simply put, every commander dreams of surrounding himself with top-notch staff officers and noncommissioned officers (NCO's). Why? Because every seasoned commander knows that his staff is an extension of his command. In fact, the staff makes command possible. A good staff allows the commander to perform at his best. Without an effective

staff, the commander will never command to his full potential.

Today, commanders who have truly superior staffs are indeed fortunate, particularly since the existence of a good staff seems to be more a matter of happenstance than design. Why one commander has a superior staff and another doesn't can be attributed to any number of factors: the level of headquarters, the type of headquarters, the commander's location, extensive in-house training of staff personnel, or sheer luck. Do effective staffs have to exist across the Army in such a random fashion in the 21st century? We say no.

Working With Last Century's Staff

To understand where we should go in achieving a commanding battle staff, we need to look first at where we obtained our present staff system. The system we now use in the Army is descended from the 19th century Prussian model developed by Field Marshal Helmuth von Moltke (often called Moltke the Elder to distinguish him from his nephew, who led the German Army into World War I). This Prussian-derived system gives us the S and G staff positions. The staff numbering system (S1, G4, etc.) is basically the same through all levels of staff organization.

The decision methods and basic organizational structure of the staff have not changed significantly for decades. This structure is culturally embedded; it is very hierarchical and fixed and remains present even in our Force XXI and Army After Next concepts. Why do we change doctrine and build and resource new force structure to oppose new threats, yet we fail to change the one key tool a commander has to make things happen—the staff? This lack of change in staffs would seem to hamper the Army's ability to get the most out of any new doctrine.

There are three major areas where changes are needed to produce an effective commanding battle staff: doctrine, structure (both manning and equipment), and training. Let's first explore doctrinal changes that must occur.

Change in Doctrine

What should be the doctrinal base of our proposed commanding battle staff concept? A doctrinal leap ahead to meet the challenge of the future is illustrated in the chart at right.

The three functional cells shown in the chart (future operations, current operations, and fusion) op-

ing Battle Staff

by Colonel Larry D. Harman and Major O. Shawn Cupp

erate in unison within the commanding battle staff. The future operations cell primarily conducts planning for the headquarters. This cell is composed of members from all current S-staff functions. They prepare estimates, plan for future operations, and conduct logistics preparation of the battlefield. This cell also will function as an alternate command post and will plan reconstitution operations in a combat service support organization.

The current operations cell (along with the fusion cell) maintains situational awareness for the commander. The current enemy and friendly situations are displayed in the current operations cell on maps and overlays. This cell also will have representatives from other current staff sections, which will allow it to maintain current information on all functions.

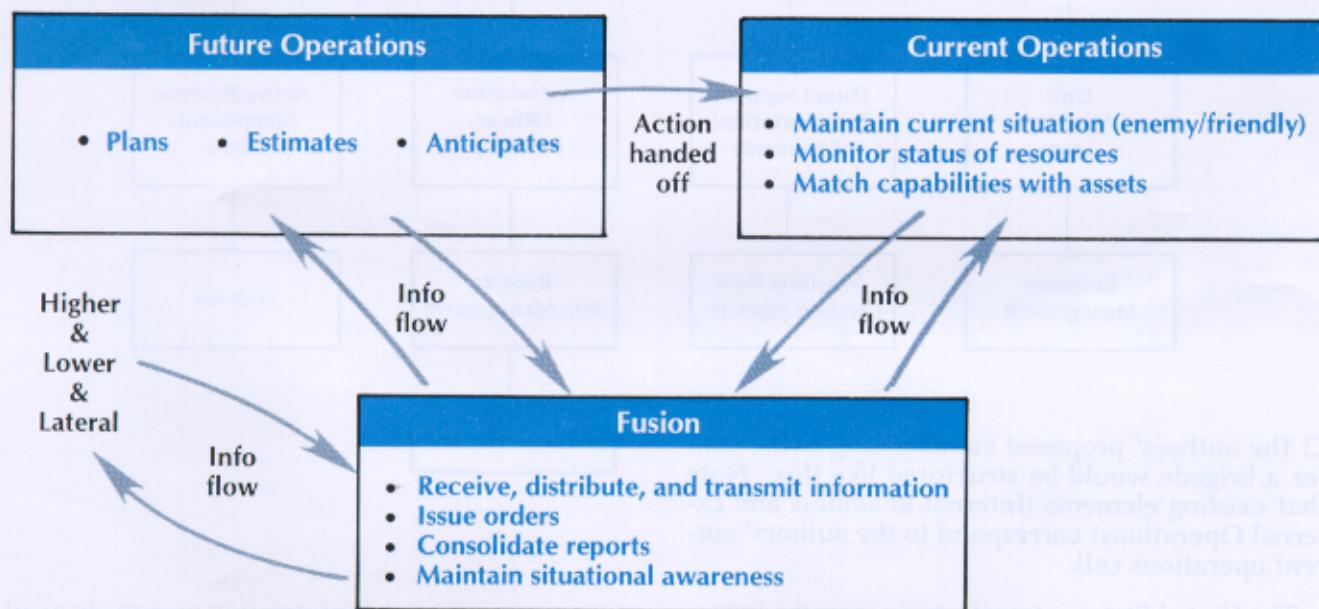
The fusion cell functions as the central hub of information going into and out of the headquarters. This cell receives, logs, and distributes incoming information. Its soldiers also receive, log, and distribute orders (fragmentary orders or operation orders) outside the headquarters. They consolidate reports for the commander and provide information needed

to maintain situational awareness.

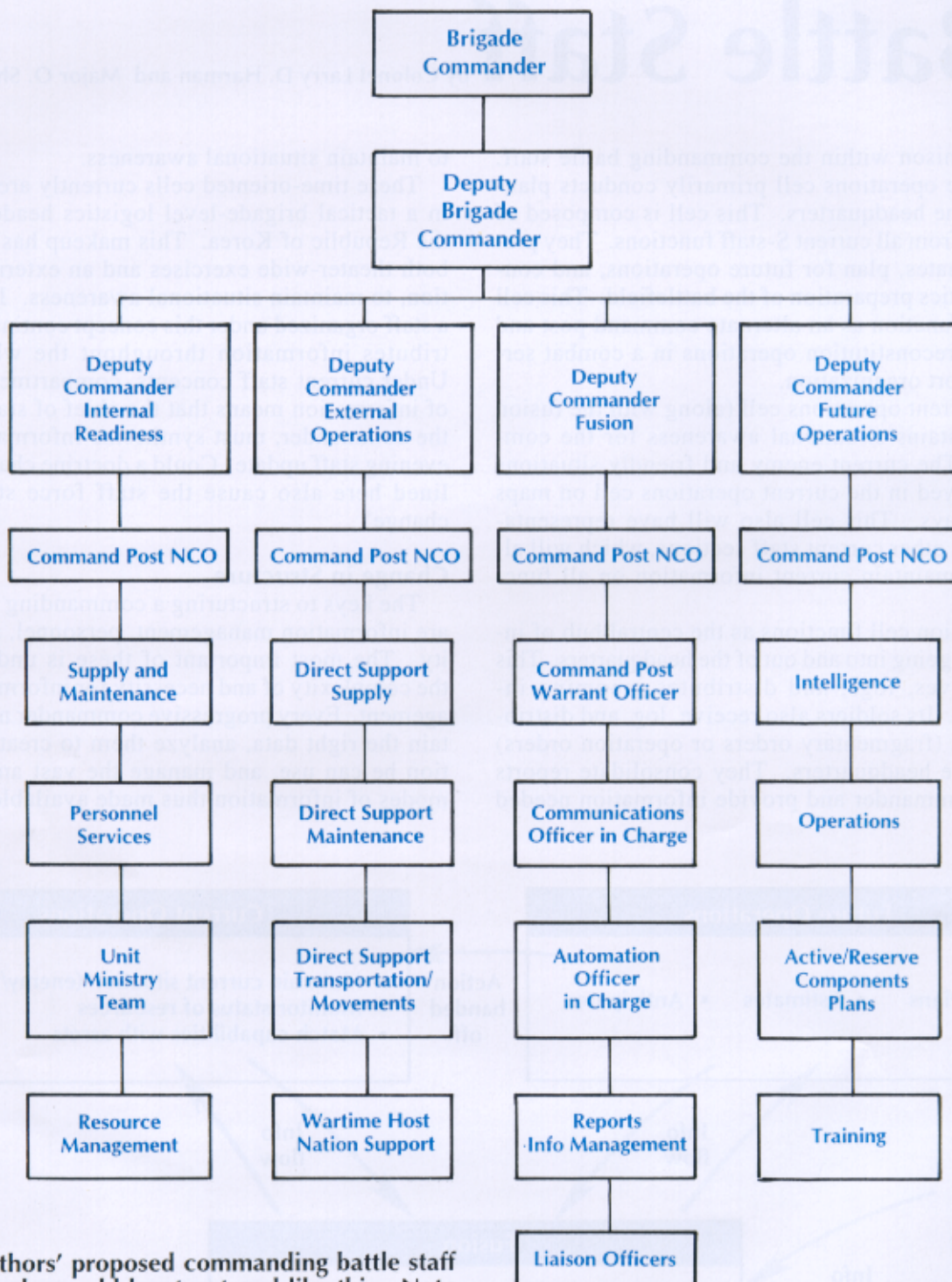
These time-oriented cells currently are employed in a tactical brigade-level logistics headquarters in the Republic of Korea. This makeup has proven, in both theater-wide exercises and an external evaluation, to maintain situational awareness. In practice, a staff organized under this concept continuously distributes information throughout the whole staff. Under current staff concepts, compartmentalization of information means that the chief of staff, or even the commander, must synthesize information at the evening staff update. Could a doctrine change as outlined here also cause the staff force structure to change?

Change in Structure

The keys to structuring a commanding battle staff are information management, personnel, and mobility. The most important of these is understanding the complexity of and necessity for information management. Every progressive commander needs to obtain the right data, analyze them to create information he can use, and manage the vast amounts and modes of information thus made available.



□ The authors propose a change in doctrine to organize the battle staff into time-oriented cells, one for future operations, one for current operations, and a fusion cell to manage the flow of information.



□ The authors' proposed commanding battle staff for a brigade would be structured like this. Note that existing elements (Internal Readiness and External Operations) correspond to the authors' current operations cell.

The United States is transforming from the Industrial Age to the Information Age. The global threat has changed, and so has our doctrine. Creation of a commanding battle staff should address a significant problem associated with the Information Age: the

management of all the information now made available by new technologies. Five modes of information are used in a headquarters and are recognized as critical for a staff to maintain situational awareness: information for intent, controlling, monitoring, and

alerting and sought information. Effectively managing this information requires a commanding battle staff.

Not only is a staff challenged to manage information, it also must manage change. The future battlefield will be a place where change will be expected and will be constant. The equipment is available now to identify changes and send information to a staff for analysis. These conditions are far removed from the 19th century environment in which the Prussian staff organization was devised. Information technology and the professional competence needed to use it make information management a task that no staff organization designed in the past can manage effectively. Why should the staff of today and tomorrow be tied to an outdated structural system?

A commanding battle staff for a brigade would look something like the organization shown in the chart at left. This structure would include several new positions unique to a staff organization. Just as there are military occupational specialties (MOS's) for specific weapon systems, there must be specialty skills created for staff positions. Among these are highly skilled command post warrant officers trained as communications and automation specialists, highly trained command post NCO's, and deputy commanders of the time-oriented cells. These are only a handful of the changes needed to update our staff force structure.

Soldiers account for only half of the equation for properly structuring a commanding battle staff. Mobility is key to our force-projection Army. Providing a commanding battle staff with the tools it needs to maintain situational awareness means integrating information technology into mobile, deployable command posts. A commanding battle staff should be equipped with either expando vans or prefabricated office shelters or containers in which information technology is integrated into the work stations. Local area networks (LAN's), computers, printers, communications, intelligence systems, and wireless links to e-mail are only a few of the information technologies necessary for a commanding battle staff to keep the commander informed.

Change in Training

We believe that our proposed revolutionary approach to staffing should coincide with a revolutionary change in training. Consider some Army initiatives of the past: the Combined Arms and Services Staff School, the NCO Education System, the Command and General Staff College, the Combined Logistics Officer Advanced Course, the School of Advanced Military Studies, and the NCO Battle Staff

Course. All of these are leading us in the correct direction; however, most logistics battalions and brigades receive too few highly trained staff officers and NCO's. The staffing of headquarters is important, and it will be more important in the future. Training staff soldiers is the toughest challenge for a commander today.

Is a commanding battle staff more effective than the current staff structure? Is an effective staff as important as a commander? Does a battle staff resolve problems associated with S-staff organizations, or just cause new pitfalls? Can the battle staff concept apply to company, battalion, brigade, division, corps, army, and joint staffs? Can it revolutionize our Army and save much-needed force structure? These and many other questions are raised when the topic of a commanding battle staff is discussed, and they must be answered by logisticians today.

Logisticians must devote more energy to developing an Army-wide culture that generates a superior support structure for commanders. Note that the future support structure may not be called a staff as we now know it. We contend that this endeavor is a new Force XXI frontier—one in which advances have only touched the surface of possibilities and therefore are not embedded in either Army doctrine or Army culture.

The debate today is characterized by those who favor a "leap ahead" approach and those who have a "creep ahead" mentality. The desired end state is to provide superior battle staff situational awareness and decision support consistently to field commanders, who themselves will be practitioners of battle command. Any new idea needs commitment, whether it is leap ahead or creep ahead. Commitment to using scarce resources, including dollars, force structure, and force modernization plans, requires all facets of a force to be redesigned. A commanding battle staff is necessary to leap into the 21st century. **ALOG**

Colonel Larry D. Harmon is a Transportation Corps officer who commands the 501st Corps Support Group, Camp Red Cloud, Korea. He is a graduate of the Army School of Advanced Military Studies and the Army War College.

Major O. Shawn Cupp is an Ordnance officer who is S3 of the 501st Corps Support Group, Camp Red Cloud, Korea. He holds B.S. and M.S. degrees in education from Virginia Polytechnic Institute and State University and is a graduate of the Combined Arms and Services Staff School.

Scripting: A Third Warfighter Dimension

by Major Thomas G. Roxberry

When challenged to expand its Warfighter exercise to include corps-level elements, the 1st Armored Division added scripted play to the usual tactical deployment and computer simulation.

As Warfighter exercises go, the 1997 external evaluation (EXEVAL) of the 1st Armored Division (Task Force Victory) by the Battle Command Training Program's (BCTP's) Operations Groups Alpha and Delta proved to be extremely challenging and quite atypical. The reason for the unusual nature of this Warfighter was the desire of the V Corps commander, Lieutenant General John N. Abrams, to exercise and evaluate his staff and separate brigade-level units. By design, the EXEVAL was supposed to test the effectiveness of the 1st Armored Division and the 3d Corps Support Command's 16th Corps Support Group. But the exercise that resulted from General Abrams' decision was to be significantly broader than usual, and with greater rewards for all parties involved.

Exercise Configuration

Because of V Corps' short-notice decision to capitalize on the upcoming 1st Armored Division

Warfighter, the exercise quickly mushroomed into a full-blown, operational-level slugfest. In order to test its ability to fight as a joint task force, V Corps expanded the exercise configuration to include a U.S. Central Command cell; an Army Forces headquarters; a robust corps support command (COSCOM) with five corps support groups (CSG's) and one transportation group; two additional divisions [the 4th Infantry Division (Mechanized) and the 101st Airborne Division (Air Assault)]; V Corps Artillery; and the 3d Armored Cavalry Regiment. Linkages among the various headquarters, both simulated and real-world, presented the BCTP and the division plans and exercises (PLEX) directorate with some perplexing dilemmas.

Division BCTP Warfighters

The BCTP and the PLEX directorate were staffed and equipped for a "typical" division Warfighter exercise, which meant that they were acutely undermanned for an exercise of the size and complexity envisioned by V Corps. They struggled with the challenge of providing the 1st Armored Division and the 16th CSG with a credible Warfighter while simultaneously portraying world-class opposing forces and realistic logistics constraints for the V Corps staff and separate brigades.

Division Warfighter EXEVAL's usually are executed in two dimensions: an actual tactical deployment and a computer simulation. The evaluated unit's tactical operations center (TOC) is deployed to tactical field locations. Most of the unit's remaining personnel and equipment do not deploy to a field site. Instead, the personnel of subordinate command headquarters (usually battalion level and below) are housed in fixed facilities, where they execute commands and orders from higher headquarters at corps battle simulation (CBS) computer stations. Employing CBS terminals rather than actual organizational assets allows the evaluated unit's staff to fight a war with a high level of fidelity while spending only a fraction of what a real-world force would cost.

Scripting Warfighters

But the question still remained for the BCTP and PLEX observer-controllers: how could they stress the remaining corps assets given the physical constraints of this particular division Warfighter? The solution to their quandary was quite simple yet ingenious: Establish peripheral unit cells and charge them with scripting the required number of maneuver and support headquarters into the expanded Warfighter.

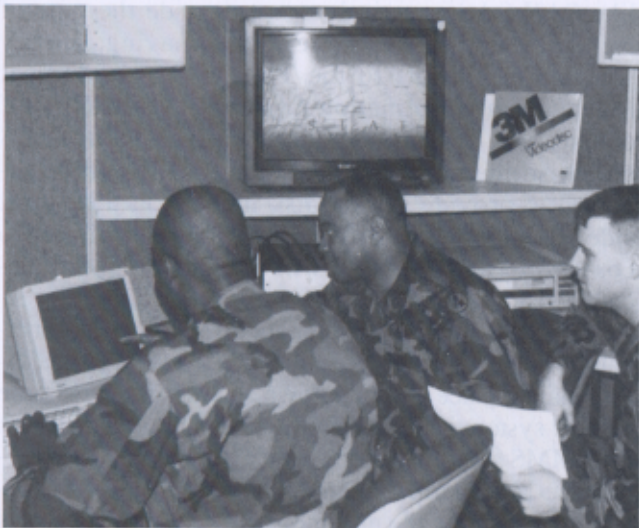
Under the tutelage of Colonel Robert G. Shields and Mr. Raymond D. Nolen (who were the White Cell observer-controllers responsible for the script-

ing cells), scriptors wargamed scenarios and tasks to challenge the staffs of the units not "fighting" in the competitive cell. Any initial hesitation and skepticism, by exercise observer-controllers, to script the residual "play" of V Corps into the exercise quickly dissipated. It was clear that the scriptors, by mutually supporting the efforts of the BCTP Warfighter, soon had the V Corps' operational tempo at a fevered pitch.

Challenges of Scripting

Even when all players are properly coached and directed, the use of this third dimension of simulated warfighting creates challenges of its own. For instance, within the logistics cell, scriptors had to portray realistically the external support operations requirements for 3d COSCOM's subordinate CSG's; accurately reflect on overlays the displacement of the direct support forward CSG's in coordination with the operational scheme of maneuver; maintain and report internal support requirements to 3d COSCOM's general staff; and develop and wargame scripted tasks to stress the simulated available resources and conditions.

Wargaming involves synchronization of battle operating systems (BOS); this was strictly enforced by the scripting White Cell observer-controllers at every event and activity design meeting. The most important and difficult of all the logistics scripting mandates was to maintain consistency among all three cells (TOC, CBS, and scripted). There could be no perceived differences between what was being exercised in the field and what was happening in the controlled environment of the scripting cell.



□ Soldiers of the 181st Transportation Battalion, 3d Corps Support Command, learn corps battle simulation operations for the Warfighter exercise.

As a result, communications, reporting procedures, and shift changes in battle staffs had to be well established and closely monitored.

Benefits of Scripted Play

In my opinion, there are significant value-added benefits to devising BCTP Warfighters that use scripted play in conjunction with a tactical (TOC) deployment and computer simulations. In the case of Task Force Victory, scripted play enabled leaders at every level to review and revisit doctrine at the operational and tactical levels of war. Scripted events and activities also can be tailored to generate virtually any desired outcome. This flexibility allows scriptors to develop and track scenarios across organizational boundaries and encourages vertical and horizontal staff coordination among evaluated units.

Another advantage, especially for logistics units, is that scripted play helps to establish relationships among supported and supporting units. Because blue and red forces can be simulated across the battlefield framework, it becomes imperative that units such as a forward CSG know where they fit. Combat service support commanders must address questions like: How and where do we get support? How, where, and when do we give support? When do we provide, and when do we request, throughput of supplies?

Future Applicability

By using a well-designed and well-managed scripting cell, V Corps was able to enhance the Herculean efforts of the BCTP's 1st Armored Division (actually the expanded V Corps) Warfighter. After conducting even a cursory cost-benefit analysis, I would venture to say that V Corps reaped numerous benefits with very little overhead. In simulated play, the combat multiplier of using scripting cells to challenge commanders and their staffs merits further consideration, especially with the Army's shrinking budgets and force structure.

ALOG

Major Thomas G. Roxberry is executive officer of the 181st Transportation Battalion in Mannheim, Germany. He is a graduate of the Army Logistics Management College's Logistics Executive Development Course, the Army Command and General Staff College, the Supply and Services Management Officer Course, and the Transportation Officer Basic and Advanced Courses. He holds a bachelor's degree in organizational communications from the University of Colorado at Boulder and a master's degree in materiel acquisition management from the Florida Institute of Technology.

I'm Not Lost, But I Don't Know Where We Are

by Jeffrey Holmes

In the May-June 1997 issue of *Army Logistician*, I encountered several articles that made me wonder where I am in the world of logistics. I think I am on the fringe of something, but I am not sure what it is.

The first article I read was "In Search of Focused Logistics," by Lieutenant General John J. Cusick and Lieutenant Colonel Donald C. Pipp. The article was very well written and easy to read and, better still, it was wholly logical—until I came to the statement "GCSS [Global Combat Support System] is designed to do for the logistician what the Global Command and Control System (GCCS) does for the operator." Since I work with those "operators" and have tried numerous times (unsuccessfully) to get information from GCCS to use for exercises and operations, the thrill of having a similar logistics system did not carry me very far. "Well," I thought, "I'm sure they will work out the problems before they field it."

Then I read "A Velocity Management Update," by Major General Robert K. Guest, Thomas J. Edwards, and Chief Warrant Officer Ramon Navarro. Again, a good article with a lot of good ideas for improving our overall logistics system in the Army. Here, a warning signal sounded in my mind. When I read the clarification that "Our sister services call the idea by other names (Precision Logistics in the Marine Corps, Lean Logistics in the Air Force)," I had to ask myself why we have different names (and probably different approaches) for one concept.

"Velocity Management Workshop: A Reality Check," by Janice W. Heretick, showed that velocity management can and does work for the active Army. Now all of the Army needs to believe in it and give it a chance to work, regardless of what it is called.

Despite the warning signs from the first few articles I had read, I remained hopeful and read on. The next article, "QWG LOG: Allied for Logistics," by Bernard P. LeVan, sent shivers down my spine. But not for the right reasons. The clarification that "QWG LOG" stands for "Quadripartite Working Group for Logistics" immediately warned me that this article was not designed for a logistician on the ground. Actually I was sort of intrigued with the premise of developing standardized logistics procedures with our British, Canadian, and Australian allies. "After all," I reasoned, "we had been flexible enough to change from 45-caliber to 9-millimeter ammunition so we and our North Atlantic Treaty Organization (NATO) allies could all shoot the same bullets. Why couldn't we perform an action as simple as standardizing procedures?" As I read on, I focused

on task 6 in the QWG LOG's top 10 tasks: "Supply, demand, issue, and control." Being a 30-year logistician who has worked for 2 services, 5 major commands, and 10 installations in and out of uniform, I realized that here was an issue that could really make a logistics specialist proud: to standardize procedures for supply, demand, issue, and control. Despite the name of the group, I wished them success and hoped for future articles on just how this ideal was to be accomplished.

Then the reasons for my general concern became crystal clear as I read Colonel Mitchell Stevenson's "Twelve Dirty Questions." Although his article dealt with the unit level logistics system (ULLS), the article becomes symptomatic of the logistics problems that unit, garrison, and tenant personnel are currently experiencing at my installation—the same problems the Army has struggled with throughout my career. Here at this installation we have only a few units, and they do use ULLS. Unfortunately for them, the supply support activity (SSA) does not have the Standard Army Retail Supply System (SARSS) for their interface; units still have to convert their data to a floppy disk and carry it to the SSA for reconciliation. At one time the SSA was in the queue for conversion from our current Standard Army Installation Level Supply (SAILS) system to SARSS, and we still may be. In the meantime, we have been traded from the Army Forces Command to the Army Medical Command (MEDCOM). The MEDCOM does not like SAILS because it does not provide the type of medical interface they were used to having, so they want us to convert to the Theater Army Medical Management Information System (TAMMIS). Of course, this system does not interface with ULLS either, so the units and the soldiers still will be required to provide floppy disk input. On the bright side, this situation will be temporary until we do convert to SARSS, but it will not happen in this decade.

ULLS also has a maintenance module. Unfortunately, it cannot interface with the 20-year-old installation maintenance system known as SMMS. In fact, the current system is so old that no one is really sure what the SMMS stands for today—probably Standard Maintenance Management System. We were looking forward to receiving the new automated system known as the Standard Army Maintenance System (SAMS), but the Army recently quit fielding it because of funding problems. That is a pity since it was such a giant step forward in the world of standardization and would have

helped Army maintenance become much more paperless from the unit all the way up to the Department of the Army.

On a related vein of logistics, we also have property accountability. At this installation, we were under the Army Medical Department Property and Accounting System (AMEDDPAS) for years before we quietly converted over to the Standard Property Book System-Redesign (SPBS-R). SPBS-R has its good and bad points like all logistics systems. One of the worst points is trying to convert hand receipts from the medical system to the "standard" system. Every hand receipt must go to the Army Information Systems Software Development Center, Fort Lee, Virginia, for conversion, and ensuing problems are almost universal with each output. We are hoping to get this completed soon because we understand our new major command wants us to convert back to AMEDDPAS, regardless of what the Army standard might be. And one day we look forward to getting into the queue for the Defense-wide system known as the Defense Property Accounting System. Of course it too will probably have the "-R" for "redesign" tacked onto its acronym by the time we finally do receive it.

My comments refer only to standardization within the active Army. The Army National Guard and Reserve each have their own systems and "standardized" procedures. And, of course, our sister services

each have at least one set of "standardized" systems. The reason I keep mentioning the systems is because each automated system comes with an extremely detailed and hard-wired set of procedures for that system plus any other interfacing manual and automated systems.

All of this is to say that I am supremely disappointed with our existing logistics system interface. I did not even bother describing the financial, contracting, personnel, or other related automated systems that play a part in the success or failure of logistics. It would have depressed me further. So, please excuse me when I have trouble getting excited about the prospects of the Quadripartite Working Group for Logistics developing standardized logistics procedures for four countries. If we cannot achieve that goal for a single arm of a single service within this country, I fear that any QWG LOG achievement will be primarily in the area of meaningless rhetoric—at least to those of us on the ground.

Jeffrey Holmes is acting chief of the Logistics Management Office, Directorate of Logistics, U.S. Army Garrison, Fort Sam Houston, Texas. He has a bachelor's degree in psychology from California State University, Long Beach, and recently attended the Army Management Staff College.

The Warrant Officer Corps: Not Perfect, But Not Broken

by Chief Warrant Officer (W-5) Charles K. Smith

Chief Warrant Officer (W-3) Michael Long's article in the July-August issue of *Army Logistician*, "Warrant Officer Corps: How to Get There From Here," cannot go unanswered. Mr. Long addresses four areas of the Warrant Officer Corps that he feels are broken: recruiting, assignment management, representation, and pay. I'll follow that same pattern in my response.

Recruiting

Mr. Long feels the reputation of technical (non-aviation) warrants has been hurt by not recruiting warrants with more time in service, or "seasoning." This proposition is abstract and cannot be defended without an Army-wide survey of perceptions. It is true that the Army goal is to recruit soldiers who have between 5 and 8 years of service. This was a resource-driven decision that represents a conscientious effort to find the hard-chargers early on and let them mature and develop within the warrant officer system. With the technological advances the Army is experiencing, this is not a bad

approach. The quick learners will be in excellent positions to acquire skills needed to employ new technology on the battlefield.

It's difficult to find a balance among enthusiasm, energy, and expertise. I often discuss warrant officer issues with officers attending battalion and brigade pre-command courses. All of them generally understand that new warrant officers will not be treasure chests of knowledge, but I have yet to encounter one officer who did not prefer enthusiasm and a willingness to learn over indifferent, inflexible know-how. In any case, reputations are individual things. Reputations are won and lost by how each of us soldiers. Most of the officers, noncommissioned officers (NCO's), and soldiers I know have encountered many good warrant officers and very few bad ones.

Assignment Management

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Assignment Management

CWO3 Long attempts to build a case for WO1's be-

Commentary

ing assigned with senior warrant officers; however, he fails to provide convincing justification. On the other hand, it's easy to see why the Army cannot do this: It has gotten smaller. Personnel managers have fewer people to manage within each specialty. While it would seem that fewer people would be easier to manage, in reality there is less flexibility in moving people around. Some people will always be in transit (permanent changes of station, hospitalizations, or attending professional development schools). Further exacerbating the process are other considerations like joint domicile, short-notice retirements, and home-base assignments. Those available for assignment must be placed where requirements exist. In many instances, personnel managers have little choice—mission always comes first.

"Mission first" is why the Total Army Personnel Command (PERSCOM) only assigns warrant officers to installation or theater level. Commanders in the field must have the prerogative of assigning available resources, including personnel, where they will best support the mission. This is so basic it is axiomatic; I will not belabor it here. Note also that authorization documents do *not* drive officer and warrant officer assignments; the Officer Distribution Plan (ODP) does. The ODP is the overarching plan for distributing available personnel assets when there are shortages. The ODP is managed at the installation and major Army command (MACOM) levels—again putting personnel decisions in the hands of the commanders who must decide the best way to accomplish the mission.

Given today's environment, the best survival tool we can give junior warrant officers is already out there. It's called mentorship. It doesn't require that a WO1 be assigned with a senior warrant. It does require that warrant officers network with each other. With the communications available today, a WO1 can pick up a phone, log on to the Internet, or send a fax to get answers to his questions. There are two things required for this to work, and it is *already* working in the field. First, the junior warrant officer must be willing to ask questions and initiate contact. Second, senior warrants must make themselves available and provide well-thought-out responses to questions.

It seems that Mr. Long also has forgotten the official description of a warrant officer: a "highly specialized expert and trainer." This means that a warrant officer can expect to have successive assignments that are not necessarily progressive in terms of responsibility or technical requirements. It is in those assignments that the warrant officer must concentrate on his duty to train others. Those assign-

ments also are excellent opportunities for the warrant officer to work on his college education to enhance his own competitiveness for promotion as well as enhance the skills he brings to future assignments.

So if a CWO2 finds himself assigned at battalion level after having served 4 years at brigade level, he should regard it as an opportunity instead of a "career management error," "misapplication of human resources," or a "mismanagement blunder." It's all a matter of attitude. From my experience, those warrant officers who have a healthy, proactive attitude go further than those who sit around and hang labels on the circumstances in which they find themselves.

Representation

Mr. Long cites the Sergeant Major of the Army (SMA) as an example of the kind of representation warrant officers need at the Army Chief of Staff (CSA) level. He proposes establishing a Chief Warrant Officer of the Army position. On the surface, this seems to be a simple, direct, easy-to-implement solution, but let's look deeper.

The SMA communicates with the command sergeants major of the MACOM's as well as with the sergeants major in each Department of the Army staff activity. Through those sergeants major, the SMA keeps his finger on the pulse of the enlisted force. This works because every level of command—from squad to CSA—has a senior enlisted soldier assigned who provides the continuity for information to flow up and down. The same is true for officers from the CSA down to company and platoon level.

Warrant officers, on the other hand, are not assigned at all levels; there is no line of continuity. A warrant officer's specialty is not necessarily the same as those of the warrant officer population he represents. For example, as a warrant officer in the Signal Corps, I would rather have a senior Signal Corps officer represent me on most, if not all, issues than a warrant officer with an aviation specialty. With my limited understanding of aerodynamics, I am not sure I would be able to represent my aviation comrades adequately either. This is not to say representation should be military occupational specialty (MOS)-specific or branch-related, but officers and NCO's perform more generalized functions while warrant officers perform primarily within narrow technical fields.

Having said all this, I need to explain the representation warrant officers *do* have. Each branch or functional proponent that has warrant officer specialties has a senior warrant officer who acts as the personnel proponent manager for those warrant officers. "Personnel proponenty" is described in Army

Regulation 600-3, The Army Personnel Procurement System, and assigns responsibility for each MOS and career field in the eight functions of the personnel management life cycle: structure, acquisition, individual training and education, distribution, unit deployment, sustainment, professional development, and separation.

The Warrant Officer Career Center (WOCC) at Fort Rucker, Alabama, represents the Warrant Officer Corps on matters that are not MOS-specific, especially those related to professional development, training, and education. The WOCC and personnel proponents interface with senior warrant officer representatives at the Army Training and Doctrine Command; PERSCOM; Army Reserve Personnel Center; Deputy Chief of Staff for Personnel, Department of the Army; and National Guard Bureau. Each has interface with, or input to, the Army's senior leadership—the general officers who run the Army. Rather than contrast the Warrant Officer Corps' representation at the Chief of Staff of the Army level with that of officers and NCO's, compare it with a civilian corporation, where a technician's supervisory chain and union representative may be the only representation available.

OK, in what areas are warrant officers underrepresented? Mr. Long feels that the Warrant Officer Corps and future leaders are "cheated" because they do not have warrant officer instructors at the U.S. Military Academy (USMA). To teach at any college, an instructor must have an advanced degree. The numbers themselves suggest why warrant officers are not considered for instructor positions at the USMA. Only 3.7 percent of warrants have advanced degrees, compared with 40 percent of officers. That translates to just over 450 warrant officers and 26,600 officers. If you exclude academic disciplines that do not lend themselves to the military world, the disparity is even greater.

Look beyond the numbers and understand that warrant officers do not need advanced degrees for career progression as commissioned officers do. Realistically, if you have a limited pot of money, are you going to send a good officer for an advanced degree or a good warrant officer? For the officer, it is a survival tool; for the warrant officer, it is largely icing on the cake.

There are other aspects of the education issue, too. Assuming you find a warrant officer whose advanced degree is in the same discipline as his MOS, what does a cadet or student gain by seeing a warrant officer at the front of the classroom? Also, what happens to warrant officers' skills when you pull them out of their technical fields and put them in the class-

room for several years?

Pay

Discussions of pay invariably lead to disagreement. Most people feel they are not paid enough and that others are paid too much. Mr. Long proposes making education goals mandatory for warrant officers. Unfortunately, he does not explain the link between mandatory education levels and pay. Mr. Long expresses his thoughts that warrant officer pay grades should be linked to officer pay grades in a subordinate fashion. For example, WO1's pay should be slightly less than an O1's, CWO5 just under O5, and so forth. There are as many opinions on this subject as there are payees. What must be considered, however, is the difference in years of service, where officers and warrant officers are employed, and the relationship between them. What officer grades typically supervise which warrant officer grades? How many years of service does the typical officer have at each grade level as compared to warrant officers? Note, too, that the basic allowance for quarters is perhaps a greater reflection of family needs rather than a rank-based rewards system. The average second lieutenant is likely to have a smaller family than the average sergeant major. In our society, supervisors and managers generally are paid more than their subordinates. Military pay scales generally follow that philosophy. If you compare military pay with that of the private sector, you will find that military pay scale relationships are pretty fair.

To warrant officers who are unhappy with their pay I say, "What would your pay be if you had not become a warrant officer?" You cannot assume that you would be E9's or E8's. Selection for those grades is a very tough cut—generally in the 15 to 25 percent range. CWO3 and CWO4 selection rates, on the other hand, have ranged from 70 to 82 percent for the last 4 years.

The Warrant Officer Corps, though not perfect or as well paid as some would like it, is *not* broken. Most warrant officers are proud professionals who are less motivated by money and privileges than by the satisfaction and respect associated with doing a good job.

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