Quartermaster

PROFESSIONAL BULLETIN

WINTER 1991 *PB 10-91-4*

LOGISTICS WARRIORS

THE QUARTERMASTER WARRANT OFFICER

dquarters, Department of the Army

This Publication Is Approved For Public Release; Distribution Is Unlimited

FROM THE EDITOR

The title "warrant officer" carries with it an instant aura of credibility. Subject matter experts in their own right, warrant officers have become a vital part of our increasingly technical branch. In this issue we highlight our warrant officers with six articles. In **Warrant Officer Force Structure**, CW4 Lee Marion, Chief Warrant Officer of the U.S. Army Quartermaster Corps, provides a quick primer on the current Quartermaster Warrant Officer force structure. MW4 James R. Damron answers an old question in **Today's Supply Warrant Officer - Technician or Logistician**? The answer may surprise you. In **Mud Ovens to Microwaves**, MW4 James A. Sifford gives us a look at the evolution of the Army Food Service Program. You'll see in the food service arena that we are *definitely* better off today. CW4 Bennie A. Manning is the advisor to the Military Airlift Command staff, Department of the Army and Forces Command Liaison Team, at Scott Air Force Base. His story, **Airdrop Way Down Under** gives us a view of a little known mission, resupplying Antarctic research bases. To complete our focus on warrant officers, in our Quartermaster Update section we have two articles from the Warrant Officer Branch at U.S. Total Army Personnel Command.

Doing more with less has always been a hallmark of the Quartermaster Corps. In our search to become ever more effective and efficient we can learn some lessons from civilian industry. James E. Stansbury III is an analyst at the Defense General Supply Center. His article, **Reducing DOD Inventory Levels: Can We Do It?** is a bold, incisive look at how civilian industry compares to the military in the supply arena. The bottom line: we can do even better than we're doing now. His analysis provides some food for thought. In **Logistics Support in Manufacturing**, CPT Ronald D. Skidmore gives us a look at how one Army facility, Rock Island Arsenal, is turning itself into a more efficient organization by applying some simple control measures.

Our recent experience in *Operation Desert Shield/Storm* has shown in combat that countless players contribute to victory. This time around, our ability to put major end items in the theater quickly often rested on the shoulders of people who never saw Dhahran, Riyadh or Log Base Charlie. Soldiers and civilians assigned to depots and POMCUS sites in Europe also helped contribute to the crushing weight of the force that liberated Kuwait. In **Total Package Fielding**, CPT Kathy L. Scherer provides us with a primer on the TPF process, a process used to field the M1A1 and other items in Southwest Asia. LT Kevin J. Scanlon served in the 3d Combat Equipment Company in Germany. His article, **POMCUS: Ready When You Are** is another fine primer on an increasingly important function - the prepositioning of combat equipment. POMCUS sites in Europe contributed about 15 percent of the total armor on the ground during *Desert Storm*, not at all insignificant.

Once again I think we have a pretty diverse issue here...something for everyone. CPT Thea Harvell's **FSB Operations Order and Service Support Annex** is a super outline of an OPORD for a forward support battalion. Using an outline like this could make life a whole lot simpler in the field. CPT Kent S. Marquardt gives us a plan on deactivation of a unit in **Inactivating `Danger Forward.'** It's a big job and someone else's view is bound to help units out there who are about to deactivate also. We hope you can find something you can use. Finally, as promised earlier in the year, we have included a Reader's Survey in this issue. You could help us to continue to improve our quality and our service by taking a few moments to fill out the survey and return it to us. Unfortunately, I could not provide for free postage to return the survey. If you could return the survey to your unit mail room and have them post it - or spring for a 29¢ stamp yourself - we'd appreciate it. Our goal here is to serve you. Your input will go a long way toward ensuring that we remain relevant to you in the field. You can't fix something if you don't know what's broken, so tell me what's broken.

-MPG

By Order of the Secretary of the Army:

GORDON R. SULLIVAN
General, United States Army
Chief of Staff

Official:

MILTON H. HAMILTON
Administrative Assistant to the
Secretary of the Army

Distribution: Special

00043

Quartermaster
PROFESSIONAL BULLETIN

THE QUARTERMASTER GENERAL
Brigadier General John J. Cusick
EDITOR-IN-CHIEF
COL Cary D. Allen
MILITARY EDITOR
CPT Michael P. Gilroy
EDITOR
Linda B. Kines
EDITORIAL ASSISTANT
Judy A. Charlotte
GRAPHICS, PHOTOGRAPHIC SUPPORT
TASC, Fort Lee, Virginia

The *Quartermaster Professional Bulletin* (ISSN 0896-9795) is published quarterly by the U.S. Army Quartermaster Center and School, Fort Lee, VA 23801-5032. This publication presents professional information, but the views expressed herein are those of the authors, not the Department of Defense or its elements. The content does not necessarily reflect the official U.S. Army position and does not change or supersede any information in other U.S. Army publications. Use of news items constitutes neither affirmation of their accuracy nor product endorsement.

The *QMPB* reserves the right to edit material. Use of the third person pronoun "he" and any of its forms is intended to include both masculine and feminine genders. All photographs are official U.S. Army photographs unless otherwise credited.

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

The *QMPB* will print only materials for which the U.S. Army Quartermaster Center and School has proponency. That proponency includes systems and doctrine that provide major end items; repair parts; water; petroleum; individual and organizational clothing and equipment; personal demand items; storage and distribution of maps; fortification and barrier materials; materiel to support military and nonmilitary programs; field services including laundry and bath, clothing exchange, bakery, fabric repair, graves registration, classification, reclamation, salvage and property disposal; parachute packing, maintenance and aerial delivery; training for all specialty code (SC) 92 officers, area of concentration (AOC) 920A, 920B, 921A and 922A warrant officers and Career Management Field (CMF) 76,77 and 94 enlisted soldiers; training of civilian personnel in proponent areas; post exchange and commissary support; Quartermaster functions in multifunctional logistics units; and the logistics, history and leadership of Quartermaster units.

Material may be reprinted if credit is given to the *QMPB* and the author, except where copyright is indicated.

3 **From The Quartermaster General**
Brigadier General John J. Cusick

4 **Warrant Officer Force Structure**
CW4 Lee Marion

5 **Today's Supply Warrant Officer - Technician or Logistician?**
MW4 James R. Damron

9 **Mud Ovens to Microwaves**
MW4 James A. Sifford

12 **Airdrop Way Down Under**
CW4 Bennie A. Manning

15 **'Wolfmobiles' Take Fast Food to War**

16 **Reducing DOD Inventory Levels: Can We Do It?**
James E. Stansbury III

20 **Logistics Support in Manufacturing**
CPT Ronald D. Skidmore

25 **Total Package Fielding**
CPT Kathy L. Scherer

29 **Inactivating 'Danger Forward'**
CPT Kent S. Marquardt

35 **POMCUS: Ready When You Are**
LT Kevin J. Scanlon

38 **Changing Food Service Tradition**
MAJ Shirley L. McGuire

43 **Staff Management Tools**
CPT Ronald A. Weigelt

44 **FSB Operations Order and Service Support Annex**
CPT Thea Harvell III

49 **Readership Survey**

2 **Coming in the QMPB**
2 **Directory**
56 **Professional Readings**
53 **Safety**
57 **Quartermaster Update**

DISTRIBUTION: Approved for public release. Distribution is unlimited.
POSTMASTER: Official postage paid at Petersburg, Virginia 23804-9998, and other mailing offices. Application to mail at 2nd class postage rates is pending at Petersburg, Virginia 23804-9998. Send address changes to *Quartermaster Professional Bulletin,* ATTN: ATSM-QMG-B, Fort Lee, VA 23801-5032.

Coming In The QMPB ...

In the next issue of the *Quartermaster Professional Bulletin* we will turn our focus to *Operation Desert Storm*. Our largest operation since Vietnam is turning out to be a treasure trove of logistics observations and lessons learned. We have received some interesting input so far and we'll bring it to you. We've also received several articles from the Reserve Components and we'll bring you one or two

DIRECTORY - Points of Contact

Fort Lee DSN prefix: 687
Commercial prefix : (804) 734-XXXX

Editorial Offices

Editor-in-Chief
COL Cary D. Allen 3530

Military Editor
CPT Michael P. Gilroy 4382

Editor
Linda B. Kines 4382

Editorial Assistant
Judy A. Charlotte 4382

MAILING ADDRESS:
Quartermaster Professional Bulletin
ATTN: ATSM-QMG-B
Fort Lee, VA 23801-5032

ARTICLE SUBMISSIONS:
Submit articles in the form of typewritten (or near letter quality), double-spaced drafts consisting of no more than 12 pages. Articles may also be submitted on 5 1/4 inch floppy disk in most common word processing software as well as ASCII format. Hard copy must be included. Please tape captions to any photographs or diagrams included.

INDIVIDUAL DISTRIBUTION:
The *QMPB* is mailed directly to all Quartermasters on active duty in the rank of master sergeant and above. Soldiers can ensure receiving their individual copies by keeping their addresses on their officer record brief/enlisted record brief up to date.

UNIT DISTRIBUTION:
Report delivery problems, changes of address or unit designation to Judy A. Charlotte at DSN: 687-4382 EXT 8507. Requests to be added to direct distribution should be in the form of a letter to the Military Editor.

QUARTERMASTER HOTLINE:
The Office of Evaluation and Analysis maintains a hotline to provide assistance on technical, doctrinal and training matters and response to questions about other Quartermaster proponent areas. DSN: 687-3767, Commercial: (804)734-3767, Toll free: 1-800-284-4935, EXT 3767, outside Virginia or 1-800-552-4820 within Virginia.

U.S. Army Quartermaster Center

The Quartermaster General BG John J. Cusick	(ATSM-CG) 3458
Assistant Commandant COL Michael R. Devine	(ATSM-AC) 3759
Chief, Office of the Quartermaster General COL Cary D. Allen	(ATSM-QMG) 4237
Command Sergeant Major CSM Milton B. Hazzard	(ATSM-CSM) 3248
Petroleum and Water LTC Gregory D. Gibbons	(ATSM-PWD) 2981
Directorate of Combat Developments COL Thomas C. Hill	(ATSM-CD) 2832
Directorate of Training and Doctrine COL Charles K. Childers	(ATSM-DT) 4644
Office of Evaluation and Analysis LTC Lloyd T. Waterman	(ATSM-OEA) 5769
Airborne and Field Services LTC David L. Shaw	(ATSM-ABN-FS) 2938
Supply and Professional Development COL Richard B. Gilmore	(ATSM-SUP) 2425
Army Center of Excellence, Subsistence LTC John Q. McNulty	(ATSM-CES) 2950
Mortuary Affairs Center LTC Thomas O. Rexrode	(ATSM-MA) 3831
23d Quartermaster Brigade COL Carl E. Fellers	(ATSM-TPC) 1878
Noncommissioned Officer Academy CSM Larry W. Gammon	(ATZM-SGA-C) 3738

From The Quartermaster General

Brigadier General John J. Cusick

This issue of the *Quartermaster Professional Bulletin* showcases the warrant officers of our Corps - often older, maybe somewhat irascible, *always* experts in their fields. They usually are the corporate memory of their units and of the Army as a whole. In our highly technical branch, we find them to be invaluable assets whose contributions will only increase as the size of our force is reduced. These logistics warriors form the solid backbone of our Corps, and to continue our mission without their expertise would be a difficult task.

I was asked to reflect on my experiences with warrant officers over my career, in keeping with the theme of this edition. I find upon reflection that I had great experiences in every sense of the word: challenging at times, always educational, rewarding and fun. I've always had great admiration for our warrant officers and respect for their technical expertise and dedication to getting the job done right.

My first experience as a new Quartermaster Officer was in the 612th Quartermaster Company (Aerial Delivery), Fort Bragg, NC. Just after completing the officer rigger course at the U.S. Army Quartermaster Center and School, Fort Lee, VA, I worked with the airdrop systems technicians, the real professionals of our aerial delivery mission area. Most of these guys were CW3/4s, and even an overconfident 1LT such as myself learned quickly to disengage mouth and fully engage ears and brain. We had some memorable experiences, none of which I'll bore you with because if you've been in the U.S. Army for more than a year, you no doubt have your own warrant officer stories to tell. I was fortunate that throughout my career our warrant officers, of all specialties, were there and still are there to continue to educate and make things happen. Today, warrants have the professional responsibility to continue to be our technical experts and great trainers, but they also have the historic responsibility to those great warrants who proceeded them to continue to develop soldiers of all ranks. Soldiers are continually grateful for our superb Quartermaster Warrant Officers and the outstanding job they have done over the years.

Work continues here at the Quartermaster Center on several projects which will impact on those of you in the field. I consider these my "top 10." I will add and delete from this list as we make headway. In the future I will use our professional bulletin to keep you abreast of these projects. These are our major initiatives here at the Quartermaster Center:

The Army Field Feeding System Study
Enlisted Aide Proponency
AirLand Operation Combat Service Support
Field Services Study
Desert Storm Observations
The Battlefield Spares System
The Total Distribution System
Combat Service Support Systems Program Review
Upgrade of the Logistics Warrior Field Training Exercise (multi-echelon training)
Stock Funding of Depot-Level Reparables

QUICK NOTES

- The Army Field Feeding System Study is nearing completion, and thanks is given to all those who contributed to this successful endeavor. Our soldiers will eat better because of your efforts. Details on findings and recommendations will be provided in a future edition.
- As Quartermaster "Logistics Warriors," keep your focus on our critical mission of sustainment of soldiers - no mission can be more vital or important. Be technically proficient and tactically tough.

Brigadier General John J. Cusick is the U.S. Army Quartermaster General.

WARRANT OFFICER FORCE STRUCTURE

CW4 Lee Marion

Although the Quartermaster Warrant Officers represent a small segment of the entire Quartermaster Corps, the service that they render not only to our Corps but also to the Army and other services through joint assignments reflects great credit on all Quartermasters. Quartermaster Warrant Officers in the modern Army continue a proud historical tradition of technical expertise. The first warrant officers appointed in the Army were members of the Mine Planter Service of the Coast Artillery Corps. They served as masters, mates, chief engineers and assistant engineers of Artillery Corps vessels. However, Army historians trace back to 1886 military duties later identified as warrant officer positions. From 1886 to 1916, these positions had no warrant officer status. In 1916, an act of Congress established "headquarters clerks" as Army Field Clerks. The legislation also established the position of Pay Clerk, Quartermaster Corps. Today, all Quartermaster Warrant Officers hold one of the following military occupational specialties (MOSs).

The Quartermaster Warrant Officer is a highly trained, professional soldier who can assist the commander in accomplishing the unit's mission.

- **920A, Property Accounting Technician:** The Property Accounting Technician maintains an organization's property accountability through the management of property books. These accountable documents vary considerably depending upon whether the organization supported is a table of organization and equipment (TOE) or table of distribution and allowances (TDA) unit, a divisional or nondivisional unit or whether the property book system is automated or nonautomated.
- **920B, Supply Systems Technician:** The Supply Systems Technician maintains the command's automated retail supply systems to support numerous activities and accounts. This technician manages the requisitioning, receiving, storing and distributing of supplies kept at direct, general or installation supply support activities (SSAs).

As discussed, two warrant officer specialties are within area of concentration (AOC) 920. Neither is interchangeable. Each provides a separate track of technical expertise in carrying out the Army's supply accounting and management policy below wholesale level.

- **921A, Airdrop Systems Technician:** The Airdrop Systems Technician provides technical guidance to commanders and staffs of activities with the mission of conducting and receiving airborne and/or airdrop operations. Additionally, this technician supervises the inspection of parachutes and parachute components to detect flaws in material and workmanship. This soldier also oversees the packing of parachutes; ensures that unserviceable, nonreparable and overage parachutes are retired from the inventory; supervises airdrop rigging activities and airdrop equipment maintenance activities; and ensures compliance with standards and criteria for life support systems and other airdrop equipment.
- **922A, Food Service Technician:** The Food Service Technician coordinates and supervises the Army Food Service Program for installations, commands or organizations to include releasing information; managing personnel; determining technical training requirements; developing and conducting training for officer, enlisted and civilian personnel; and developing management plans for food service. Additionally, this soldier develops and coordinates dining facility modernization and new construction programs; develops, coordinates and monitors budget requirements; and plans, trains and implements changes in nutritional awareness programs, modification of menus and low-calorie menus. Furthermore, the Food Service Technician coordinates with Troop Issue Subsistence Activities (TISAs) and Class I (rations) points to ensure that appropriate subsistence is available; evaluates field feeding requirements and develops milestone plans to support major field exercises; and ensures medical surveillance of Prepositioned War Reserve Stock (PWRS).

Why are our Warrant Officers so valuable? What is the bottom line? The Quartermaster Warrant Officer is a highly trained, professional soldier who can assist the commander in accomplishing the unit's mission - and accomplishing the mission is what we're all about.

CW4 Lee Marion is Chief Warrant Officer of the U.S. Army Quartermaster Corps, U.S. Army Quartermaster Center and School, Fort Lee, Virginia.

TODAY'S SUPPLY WARRANT OFFICER - TECHNICIAN OR LOGISTICIAN?

MW4 James R. Damron

My perspective on the question comes from the vantage point of 33 years of Army supply experience. That credential has no value except longevity and the experience it implies. A principal benefit of longevity is that I can permissibly ruminate at length about "the good old days." Of greater benefit, I can more or less force younger warrant officers, and all of them are, to listen attentively and pretend to be impressed.

Well, in the "good old days," the Warrant Officer Supply Technician was found most commonly in battalion-sized units or smaller. The Battalion Property Book Officer is the stereotype. The technical mission was narrow in focus: maintain the unit property records, requisition the needed supplies and equipment. In practice, however, the mission went far beyond the technical. The warrant officer brought experience, continuity and maturity to the job, and others relied upon him as somewhat of an expert on **all logistic issues.** The battalion S4 (Logistics Officer) was almost certain to be younger, less experienced and unquestionably less stable in that assignment.

Generic Logistics

Early in my career was a one-year period when five different S4s worked in my battalion. On many other occasions when no S4 was assigned, I filled that position *de facto.* Consequently, the battalion commander looked to the supply technician for more than the humdrum matters of property books and hand receipts. Indeed, in my experience, the so-called, "technical matters" occupied a fairly small part of my time. Most of my time was spent on generic logistics staff issues. I, and most of my generation, had to know about maintenance, transportation, food service, all supply classes and many related staff subjects, such as force structure, operational planning and personnel. **In short, we had to be logisticians.**

More recently, many supply functions centralized with advances in automation. Now the supply technician more likely performs technical functions within the division support command (DISCOM) or corps support command (COSCOM) for an entire division, corps or installation. Few of us attend battalion staff meetings anymore. Few of us will serve as *de facto* S4s. Things have changed! However, I do not think that the underlying principle has changed. To do the job properly, to be the most effective, to perform at levels that equate with personal experience, maturity and stability, the supply technician still **must be a logistician.**

Necessary Interface

First, each type of supply technician, the 920A (Property Accounting Technician) and the 920B (Supply Systems Technician), must know what the other is doing. The relationship of end items to repair parts and supplies is obvious. The interface necessary during equipment fieldings, force structure changes and just normal day-to-day operations greatly improves when each supply technician knows how his counterpart operates. Each has information at times useful to the other.

The supply technician uses automated processes. It goes without saying that those processes must be thoroughly understood. It perhaps needs saying that the technician should strive for at least basic knowledge of the technical aspects, as well as the functional, of those processes. So armed, he can intelligently grapple with the inevitable glitches.

Automated processes bring their own hazards to the workplace. The most dangerous is the idea that the automated process is the "system." Standard Property Book System! Standard Army Retail Supply System! They sure sound like systems. Of course, they are not. Property accounting or stock accounting is the system, a subset of the supply system as a whole. The automated processes are merely the tools. I only wish designers would quit using the word "system" in the titles given to these tools because these titles simply reinforce that dangerous illusion. The supply technician needs to fully understand the **whole system** and how he fits

into it, and then understand how the automated tool helps make the system work.

Broad Knowledge

Logistics is more than supply. To make the supply part work best, supply technicians must understand the basics of Army logistics. Maintenance technicians must have a fairly good knowledge of the supply system. Repair parts are the lifeblood of maintenance. The converse is no less true. Supply technicians do not have to know how to fix things but should understand the maintenance system. Supply technicians need to know about the automated processes. (Yes, these processes tend to be called systems also.) How material and unit readiness are calculated...what reports and information from maintenance channels can be useful to the supply technician and vice versa...what kind of maintenance structure the organization has...and the who, what and where of backup support. Without this kind of knowledge, supply technicians cannot accurately weigh the impact of decisions and actions such as changes in stockage levels, new equipment fieldings and designation of reparable exchange items.

Supplies must be transported. The supply technician must understand how to use the transportation system. What is an MCO? A DTO? An ITO? An MCC? When must the G3 Air Office be involved? How do all of these interrelate? Again, without basic understanding of how the transportation arm of logistics works, the supply technician is dealing on uneven terms and may not move needed supplies most effectively.

'Special' Supply

Often ignored especially in peacetime, are the "special" supply categories. Bulk Class III (petroleum, oils and lubricants), Class V (ammunition) and water tend to take care of themselves or have their own specialists. Supply technicians cannot truly command the broadest view of logistics without some detailed knowledge of the special techniques to supply these critical elements.

- Bulk Class III has unique accounting measures. Of

course, the transport, delivery and field refueling are critical to success in battle or during peacetime training.

- How does the Class V supply system work? How are basic loads calculated? Again, transport is critical for ammunition. We do have ammunition technicians, but Class V needs will have a great deal to do with priority of cargo lift, will take up a great deal of space on the ground and will command a great deal of attention from the commanders who need it.
- Water supply is arguably the logistics topic commanding the least attention in peacetime. Its crucial role in *Operation Desert Storm* should convince all of us that we need to know a lot more.
- Within Class I (rations), supply technicians must understand about basic loads, accounting techniques, resupply, transport and the Army Field Feeding System (AFFS).

Medical Service

The neglected unit in combat service support (CSS) is medical service. In DISCOMs for many years now, most logisticians have not clearly understood medical units. Indeed, in many DISCOMs I would be hard-pressed to find anyone on the staff outside of the Divisional Medical Operations Center with any detailed knowledge of the medical mission. Perhaps the lack of knowledge exists because we view medical units as CSS units rather than logistics operations. Well, they all have clear logistics missions: medical equipment maintenance and medical supply. Surely the DISCOM commander (or COSCOM commander, for that matter) deserves to have medical logistics issues debated and resolved with the full participation of an entire staff, just as with all other logistics issues. Full participation requires basic understanding.

'We are a multifunctional logistics community now. Supply cannot be performed effectively in a logistical vacuum.'

Related Disciplines

Apart from a broad-based understanding of all things logistical, all logisticians must master many related disciplines to some degree. Some with great significance include:

Staff Functions and Responsibilities:

Perhaps the greatest failing among the current generation of warrant officers that I have personally observed is inadequate or improper coordination. Every property book technician will always be on some kind of staff. Many in the 920B field will be on staff as well. Clearly, a degree of hard knowledge of staffs at all levels, but particularly battalion, brigade-level, division and installation, is an absolute job requirement.

Mission:

Every officer, probably every soldier, must know the mission of his section, his unit and his division. Familiarity with the Mission Essential Task List (METL) is vital. The supply technician must go one better. This warrant officer must know a great deal about the mission of all units supported. Only then can the supply technician reasonably evaluate whether or not needs are being met and appreciate the consequences when they are not.

Force Structure:

A necessary counterpart of understanding the mission is understanding the force structure. The supply technician needs to know the living structure of the units supported and, of equal importance, the force structure process. What is the difference between a base table of organization and equipment (TOE) and an objective TOE? What can or cannot be inserted into the modification table of organization and equipment (MTOE)? What are BOIPS and ICPS? Often the first question that eventually results in a force development action is directed toward the supply technician, usually in the form of a question that begins "How can we get _____?" The supply technician can best assist that process with guidance in the right direction. For

example, is a TOE change appropriate? An MTOE change? Common table of allowances (CTA) change? An addition to the table of distribution and allowances (TDA), or a simple change to a technical manual or set listing, or no action at all because some kind of authority may already exist? Indeed, who can possibly be better shaped by experience to provide that guidance than the supply technician who must deal with those kinds of questions almost daily?

Field Training:

Training is the peacetime mission of the Army. "Battle focused" training is the new buzzword. We logisticians are fond of saying that we train for our wartime mission on the job every day. It is true. We fix trucks and post property records and requisition supplies in garrison, in peacetime, pretty much as we will on the battlefield. For that reason, we often look at field training as an intrusion. We tolerate it as a necessary evil and try to get through with a minimum of disruption. All logisticians, certainly including our subject technicians, need to recognize what a shortsighted view this is. *Our role in exercise play is primarily to provide realistic training opportunities for others*, mainly those units we support. Our presence in the simulated battlefield forces our units to come to grips with issues such as maintenance in the field and battlefield resupply. We may gain some benefits, but our contribution to the logistics training of others is paramount. To make that contribution effectively, we must understand the training system and process. Clearly, we must know the sometimes subtle distinctions between types of exercises and the respective goals of each. We need to know the relationship of the training to the METL and need to see the battle focus. In my view, we need to play a larger role in the planning of training. Nobody knows our jobs better than we. If we simply leave the planning to others, we are likely to engage in operations with little logistical reality. Supply technicians too often leave such operations blaming others.

Budget and Finance:

Finally, the supply technician absolutely must understand the budget and finance system. Probably most disposable operation and maintenance funds available to local commanders go for supplies and equipment. In today's Army, supply and finance are hand in glove operations. The automated processes are so intertwined that daily contact between the two is unavoidable. This is the external field that all supply technicians must try to master.

There are others, of course, such as personnel systems, relations with Reserve Components and communications. Must we know all this? The answer is "yes, we must!" The ranks of warrant officers, in general, contain soldiers of greater experience and maturity than most of their colleagues. We have witnessed more field exercises, force structure changes, budget crunches, convoy operations, new equipment fieldings, computer breakdowns and pretty much anything else in today's Army. If warrant officers bring to the workplace their observations gained from experience, enhanced by knowledge of the processes involved, their contribution to unit success is multiplied many times over. Hard experience teaches warrant officers the most on the job. Warrant officers must actively seek other knowledge. Some education will be acquired only over obstacles of overzealous "turf" protection.

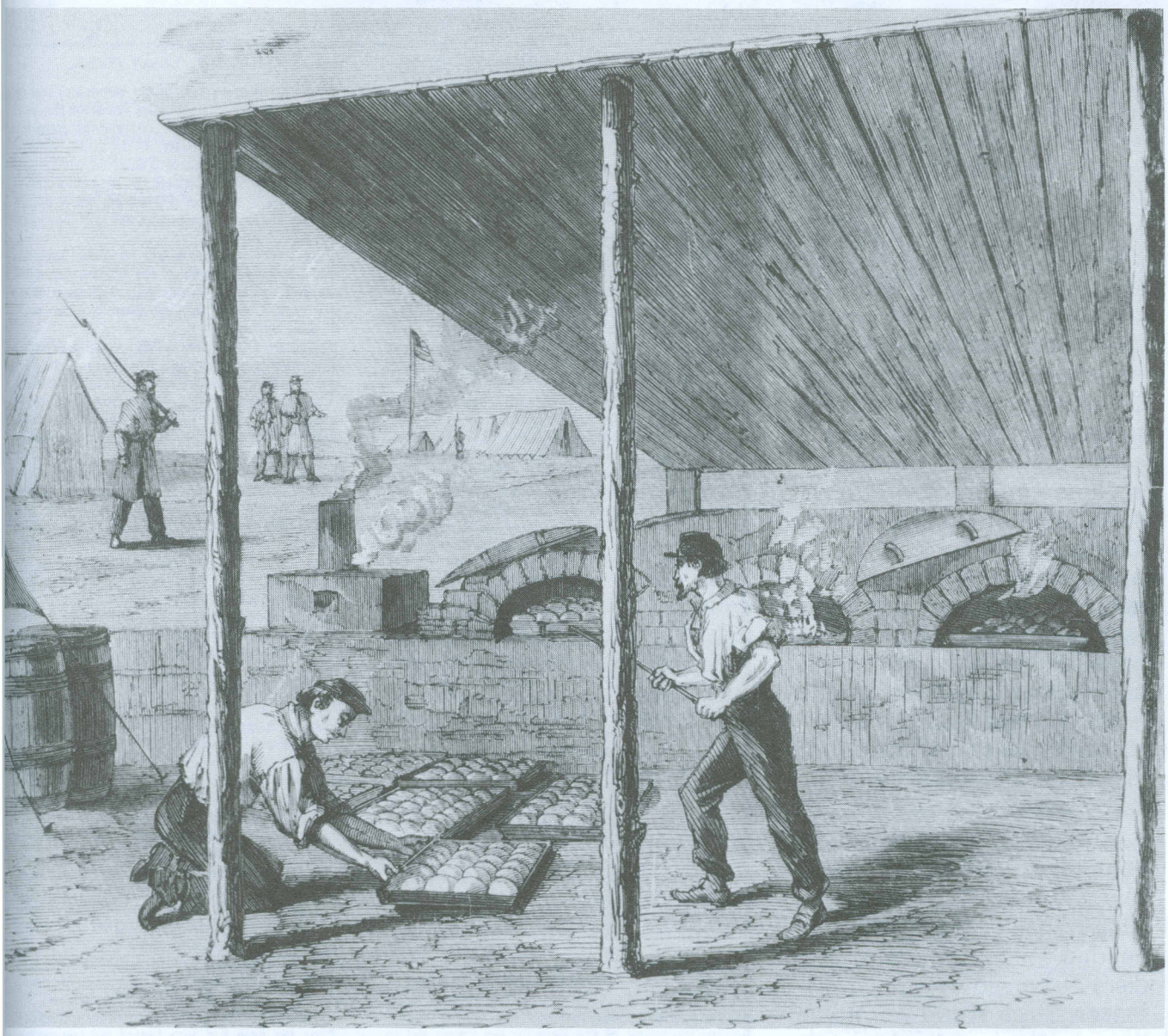
We are a multifunctional logistics community now. Supply cannot be performed effectively in a logistical vacuum. Logistics cannot be performed independently of other Army disciplines. It never was sufficient to bring to the job only the latest supply update publication - and it is not now. The supply technician who maintains a narrow focus might yet be an asset. The supply technician with broad horizons, who aspires to be a complete logistician, will be a godsend.

MW4 James R. Damron has 32 years active Army experience, with 24 years warrant service in both 920A (Property Accounting Technician) and 920B (Supply Systems Technician) specialties. His assignments include 1st Cavalry Division, 6th Infantry Division, 25th Infantry Divison, Hawk Project Office and the United States Military Academy at West Point, New York. He currently serves as an instructor at the Warrant Officer Career College, Fort Rucker, Alabama.

MUD OVENS TO MICROWAVES

MW4 James A. Sifford

From the old mud ovens to modern microwaves, the Army Food Service Program has come a long way since the early 1900s in providing soldiers with complete, nutritious meals. In the early days, the Army did not have cooks to prepare food for its soldiers. The Army provided each soldier with staples such as salt, pepper, lard, coffee and whatever meat was available. Some soldiers managed quite well, while others struggled to survive and were poorly nourished. Consequently, the Army decided to place cooks in company-sized units to make the rations better and provide timely meals. At that point, equipment and subsistence were equal: little of either was available. For example, combat rations as we know them today did not exist in any form. The cooks soon learned to build mud ovens for preparing hot breads and roasting meats, an improvement that raised troop morale. The Army began pro-



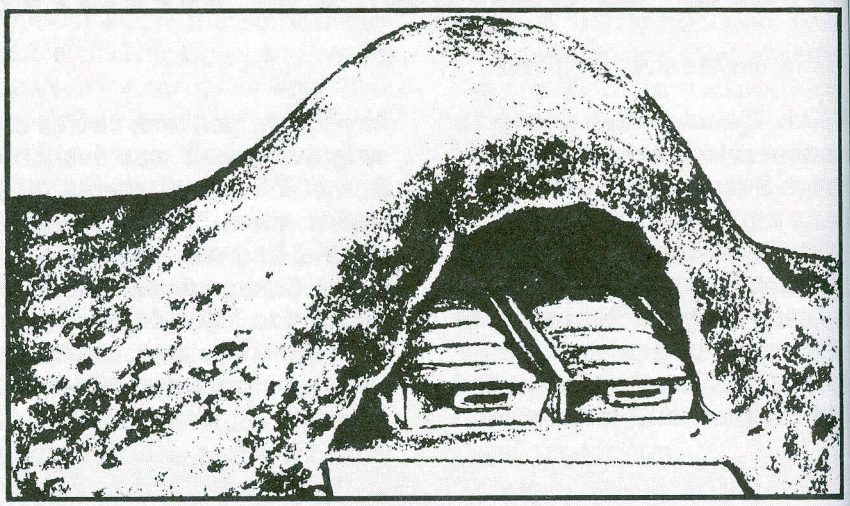
Army kitchen facilities and preparation methods have evolved dramatically from this field kitchen of the Civil War era.

viding meals to soldiers on a regular basis.

In 1916, the Army printed one of its first cookbooks. This book gave Army cooks guidance in constructing mud ovens and in preparing some foods with consistencies that soldiers would accept. When World War I began, the Army really needed a combat ration for soldiers who were in direct contact with enemy forces and at great distance from their support. Technology was available to provide canned meat and bread items. With this technology, the Army developed the K-Ration to meet the requirements. The K-Ration was not very popular with soldiers although the ration provided much-needed nutrition in combat. However, K-Rations continued as the basic combat ration well into World War II.

Fortunately, advanced technology and new canning techniques enabled the Army to safely can meats, fruits, vegetables and bread products. Thus, the C-Ration developed. The C-Ration contained the essential elements for good nutrition, with approximately 1,200 calories per meal or 3,600 calories per day. During this same period, new equipment enabled cooks to provide well-rounded meals to soldiers both in garrison and the field.

Great strides in refrigeration, including freeze capability, evolved during World War II. This advancement provided the subsistence support the Army needed for thousands of soldiers dispersed over great distances. Since World War II, the Korean War and the Vietnam conflict, the Army has continued to expand and develop new



HOW TO CONSTRUCT AND OPERATE A TWO-BARREL CLAY OVEN.

Select a piece of level ground about 4 feet by 10 feet; get two salt or sugar barrels; knock top and bottom from one, and a small section of the bottom from the other (to be used as a flue in burning out); place them together head on, the one with the bottom to the rear. Cover the ends coming together with a little hay, so as to keep the sand from falling in, and stuff up the hole broken in the bottom of the rear barrel. Get some moist sand and cover both barrels completely, molding it so that it will be about two inches thick on top and splay out at the bottom about 2 inches on each side. Then mix some clay with hay, straw, or grass until you have a pretty stiff mixture, and cover the sand, beginning at the bottom where it should be about 8 inches thick and finishing at the top with about 4 inches. Let stand for a day or two and then add about 3 inches of clay to the entire oven. Allow to stand a day longer and then cut a hole at the rear, taking the hay from the bottom of the barrel. This will afford a draught and is also an excellent means of regulating the heat. Put a fire in the barrels and burn them out. Care should be taken to put in just enough fire to start the barrels, as a big fire will burn it too quickly, and the oven will cave in. After the barrels are burned out, scrape all the sand from the top and sides and throw it out. The oven is now complete.

To obtain the best results with this type of oven, it is best to start the fire as soon as the dough is set. Keep up a pretty brisk fire for about two hours, and as soon as the dough is punched down, spread the coals evenly throughout the entire oven, and close all draughts. As soon as the dough is panned, draw the fire and close the oven up for about half an hour. Then take the oven "counts." If you can count seven (second count) you have just the proper heat. If more than 10, the oven is useless. If less than seven, the oven is too hot. This oven will hold five pans, each 12 by 24 inches, or 50 rations – sufficient for a company – and is equal to baking properties to any oven made.

To make a second run, put in another fire for about half an hour, draw the fire and close the oven for 15 minutes, and the oven will be ready for the second run. It would be well to dig a trench in front of the oven for convenience in handling the bread.

Lay out a level piece of ground about 3 feet 10 inches by 6 feet 9 inches and cover about 3 inches thick with wet clay, pack well and smooth on top. On the center of this floor lay the barrels end to end with the opening of one where the front of the range is to be. Take sand just damp enough to mold and pack under the sides of the barrels and over the top, making the form for the inside of the oven. With the clay make a thick mud and mix straw into it. This is very necessary, as the straw holds the clay together.

Begin on the sides and back and lay on the mud by hand, packing it well as it is laid on. Make bottom of sides about 10 inches thick and top about eight inches.

Just before the top is laid on, place blocks or bricks on end in center of top of each barrel and one over where the barrels join. Pack some of the clay around them to hold them in place while finishing the top.

If desired, a hole may be left at the back, and a mud chimney constructed. This improves the draft and is believed desirable, but is not necessary.

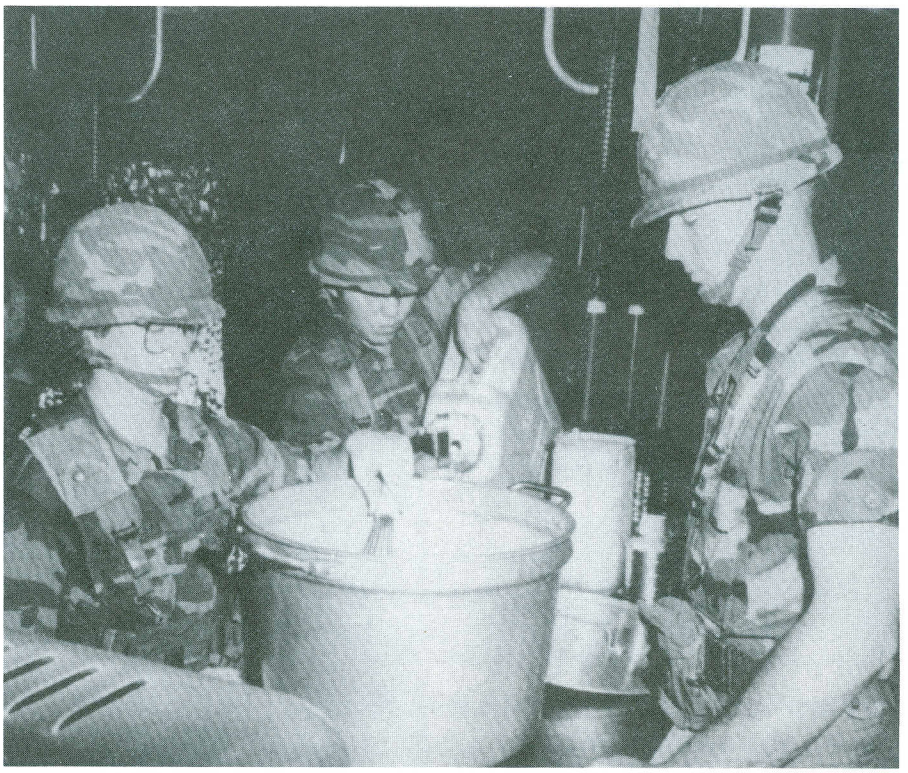
This oven should be allowed to stand in a dry atmosphere for at least 24 hours. Then burn out the barrels with a slow fire. Keep a slow fire burning until the oven is well dried. The sand will then drop out and can be raked out with a hoe. Remove the bricks or blocks and the range is ready for use, but cracks appearing should be plastered up with mud. Time required for four men to build, about 4 hours.

When articles cooked on top of the range are done, the fire can be drawn and the oven used for baking bread or meats.

This is recommended as a very good and convenient oven. A bank from 4 to 6 feet high is the best for the purpose. The roof covering need not exceed 1½ feet. Two men with a spade and a long-handled shovel can build it in light soil in three-quarters of an hour. If such tools are not available, it may be constructed with trowel, bayonet, intrenching tools, or even with knives. To build the oven, dig down the bank to a vertical face and excavate at the base a hole 4 to 5 feet horizontally, care being taken to keep the entrance as small as possible; hollow out the sides of the excavation and arch the roof until the floor is about 2 feet 6 inches in its widest part and the roof 16 inches high in the center of the arch. Then tap the back end for the flue. A hole from 4 to 6 inches in diameter will furnish a good draft. A piece of tent stove pipe may be utilized for this purpose. When difficult of construction, the flue may be omitted, and practically as good results will be obtained. The time required for drying will depend upon the character of the soil. If ordinarily dry, a fire kept up for an hour will suffice.

After the oven has been heated the temperature may be regulated by means of the door and flue-opening or closing them as may be necessary.

From *Manual For Army Cooks, 1916*



Soldiers in today's food service arena are backed by the finest equipment and technology available.

techniques to give soldiers the best equipment and subsistence of any country in the world.

In recent times, the Army Food Service Program made great strides to be competitive with civilian food service. The Army introduced the modern volunteer Army concept in the early 1970s. This concept, together with new equipment, led to modernizing dining facilities and training cooks. Short-order meals were introduced to attract soldiers to Army dining. The Army's latest combat ration, the Meal, Ready to Eat (MRE) in flexible pouches instead of tin cans, now provides the essential vitamins, minerals and calories that exceed a soldier's basic nutritional needs.

Army subsistence today provides the soldier with a wide variety of food such as hamburgers, cold sandwiches with french fries and all the trimmings, steamship round of beef, lobster, shrimp, steak and fried chicken. The Army equipment program has kept pace and, in most cases, exceeds its civilian counterpart. New building designs also made the Army competitive in providing soldiers with the decor and atmosphere for fine dining. The Army of today trains food service personnel skilled in the arts of food preparation and service to soldiers. The vast variety of entree items, supported with direct vendor items such as milks, breads, ice cream and other commercial products, fully supports the Army concept of excellence in all food service to soldiers. The Army Physical Fitness Program (APFP) brought about a new concept of salad and soup bars for soldiers. A soldier can eat three meals per day in an Army dining facility and still meet the Army's stringent weight standards. Dining facilities post the calories of each food item, plus a 500-calorie menu for each meal.

The Army Food Service Program takes an aggressive role procuring the best food and equipment. This approach provides a standard of excellence in all Army feeding, in garrison as well as the field. To support soldiers in the field, new concepts in the Army Field Feeding System (AFFS) are under study. This is just another example of how far the Army has come with the Army Food Service Program from earlier mud ovens to today's microwaves.

MW4 James A. Sifford is the Army Food Advisor assigned to the Army Center of Excellence, Subsistence, U.S. Army Quartermaster Center and School, Fort Lee, Virginia.

AIRDROP WAY DOWN UNDER

CW4 Bennie A. Manning

It is an exciting and rewarding experience to be responsible for rigging a humanitarian airdrop mission midwinter in Antarctica. This story is one of professionalism, camaraderie and fellowship. I am proud to be part of this continuing mission, and I want to share our story with you.

View of McMurdo Station

For many years the United States and New Zealand have jointly explored the continent of Antarctica. Research and exploration are at a peak during the summer months, September-February, and reduced to winter-over teams during the rest of the year. These teams are isolated except for communications and must depend solely on stored resources.

During the final stages of the summer season of 1979, the Commander of the Naval Support Force Antarctica (NSFA) requested that Headquarters, Military Airlift Command (MAC) and the Department of the Army's airdrop system technician assigned to Headquarters MAC explore the possibility of one airdrop mission during the middle of the winter-over season. A parachute drop of mail, essential repair parts, general supplies and perishable foods would demonstrate the ability of the United States to provide emergency midwinter aerial resupply. The mission would also show both humanitarian and logistical support. As a result of that request, airdrops are conducted each June in the dark and subzero temperatures.

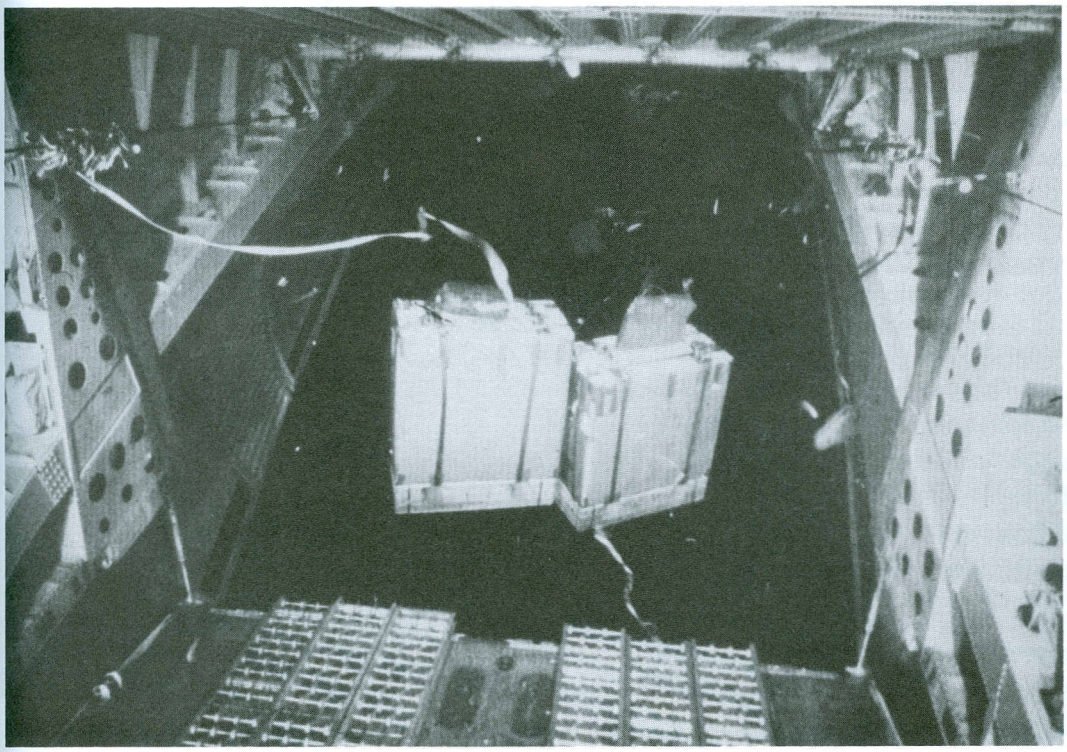
Two airdrop missions (sorties) are flown during the midwinter to Antarctica. A U.S. Air Force C-141B Starlifter airdrops the cargo and a KC-10 "extender" provides the inflight fuel during each sortie. The first sortie delivers items "over the ramp" at McMurdo (U.S.) Base and Scott (New Zealand) Base stations, and also ejects containers through the paratroop doors (manual ejection) at the South Pole because the minus 100-degree temperatures restrict or eliminate "over the ramp" operations. The first mission requires approximately 15 1/2 hours of flying time. The second sortie delivers cargo "over the ramp" at McMurdo and Scott stations only and requires approximately 10 1/2 hours flying time.

For the aircrews and riggers, this midwinter airdrop is equally important. This is not a practice airdrop. It requires extensive planning, preparation and well-trained, experienced crew members. It is a requirement to have been on a previous midwinter mission to participate. Selection is an honor and an opportunity to experience a real professional challenge. The

rigger team, with me as overall coordinator, consists of service members from the U.S. Army, U.S. Navy, U.S. Air Force and Royal New Zealand Army.

Packing and rigging the supplies is a complex operation. The drop items are shipped to Christchurch, New Zealand, where they are unpacked, inventoried and repacked for airdrop. I must decide during the inventory how to safely package each untested item. This requires on-the-spot expertise to merge rigging procedures and aircraft configuration into a safe and workable airdrop system. Each item is first carefully packaged to avoid breakage. It is then rigged in an A7A Cargo Sling Assembly and packed to a specific size to allow exit from the paratroop doors.

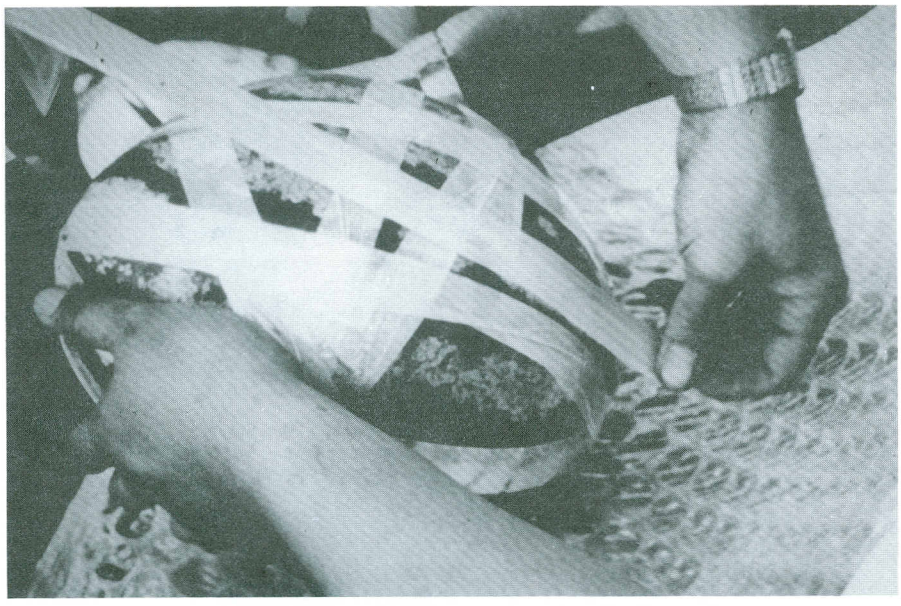
McMurdo Station Headquarters where the sign`Operation Deep Freeze' says it all



Two `door bundles' extracted from a C-141B destined for McMurdo Station

The 26-foot, high-velocity parachute stabilizes each container, so that the container lands on its "honeycomb" base to soften the effect of the 1,000-foot drop. The wind drift effect on the high-velocity parachute is greatly reduced compared to conventional parachutes, improving airdrop accuracy important in an environment such as the Antarctic.

We use foam rub-



Rigging a watermelon for airdrop, a process not found in any field manual

ber, polystyrene, bubble wrap and "honeycomb" for packing the untested airdrop items. Also, high-intensity strobe lights and blue fluorescent paints assist the recovery team in identifying containers.

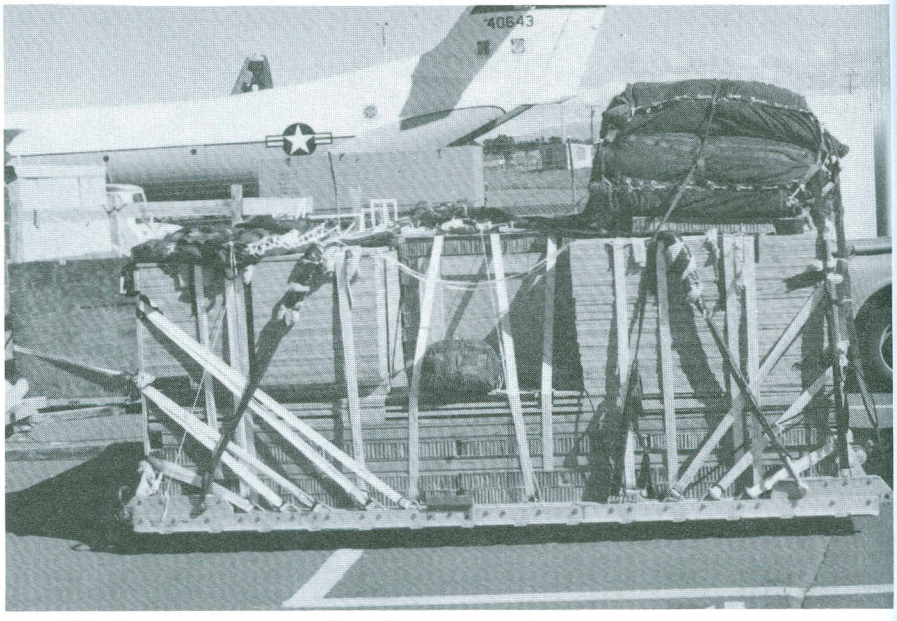
Midwinter Airdrop 1991 last June was no exception as we completed our 12th season. This year the team airdropped over 80,850 pounds of supplies at McMurdo Base, Scott Base and the South Pole station.

During this year's airdrops on 25 and 27 June, we rained mail, video tapes, equipment, fruit, vegetables, eggs, milk and two frozen pigs to approximately 300 winter-over personnel on the Antarctic continent.

Reports from the drop zone indicate minor damage to the bundle without loss of any cargo. However, three parachutes entangled, resulting in the loss of 12-each grapefruits. To the delight of the winter-over teams, the frozen pigs were ready for the 4th of July celebration at McMurdo Base. Watermelons and fresh eggs were once again successfully delivered to the South Pole station.

As the rigging team inventoried and rewarehoused their equipment, the aircrews readied their planes for return to home station. All were proud of their accomplishments and the opportunity to reaffirm our commitment to making "The World Our Drop Zone."

CW4 Bennie A. Manning is the Advisor to Military Airlift Command staff, Department of the Army and Forces Command Liaison Team, Scott Air Force Base, Belleville, Illinois. He has 29 years of experience in the aerial delivery field.



Mass supply load of construction material ready for airdrop on a 16-foot, Type V platform

'WOLFMOBILES' TAKE FAST FOOD TO WAR

Soldiers in *Operation Desert Shield/Storm* got a taste of Quartermaster ingenuity at the 125 mobile short order kitchens nicknamed "Wolfmobiles" throughout the theater of operations.

Lieutenant General William G. Pagonis, commander of the 22d Support Command, and CW4 Wesley C. Wolf, Theater Food Advisor from the Army Center of Excellence, Subsistence at Fort Lee, VA, came up with the idea of mobile kitchens that moved forward with soldiers in Southwest Asia. Not only did the kitchens become CW4 Wolf's namesake, but also the hamburgers became "Wolfburgers" on the fast food menu that included hot dogs, fried chicken, french fries, sodas and fresh fruit.

Containerized kitchens and the garrison-type equipment of the Wolfmobiles allowed cooks to set up quicker. Each Wolfmobile had two deep fat fryers, two gas grills with a single oven under the grill, hot dog rollers, dump station for french fries, warming cabinets, cooling cabinets, a reach-in freezer and refrigerators powered by generators.

Wolfmobiles were set up in the desert at convoy support centers, post exchanges, ports and airfields. One two-part unit fed approximately 1,000 to 2,000 soldiers per day. All were run by military cooks. A total of 125 Wolfmobiles were built and operational in less than six months. The first 20, built at a mobile home factory in Riyadh, Saudi Arabia, were operational in December 1990. The units also served members of the Air Force, Navy Fleet Hospitals and Marines among the half million U.S. Forces spanning 550 miles from Saudi Arabia to Kuwait and Iraq.

Supplying the fast food kitchens became the real challenge. Wolfmobile warehouses were set up to supply and distribute food to the cooks. When units moved, the freezers in the Wolfmobiles were loaded so the cooking could start immediately. A 70-person supply and transport company was established to keep the Wolfmobiles moving. Maintenance contact teams were also organized to repair and replace kitchen equipment.

Many units deployed to *Operation Desert Shield/Storm* are requesting that Wolfmobiles be sent back with them for use during exercises and for training. A depot at Anniston, AL, for the U.S. Army Center for Military History is considering at least one for "historical storage." A Wolfmobile featuring its trademark painting of a wolf shooting a hamburger out of a cannon returned with CW4 Wolf to the U.S. Army Quartermaster Center and School at Fort Lee.

REDUCING DOD INVENTORY LEVELS: CAN WE DO IT?

James E. Stansbury III

Tanks, aircraft, missiles and other military end items of equipment are necessary and highly visible costs within the Department of Defense (DOD) budget. Less obvious are the costs to maintain an inventory of spare parts and operating supplies to keep this equipment functioning. This inventory has ballooned in size in recent years and now averages over $100 billion at the wholesale level. This increase in inventory occurred even though end-use demand increased hardly at all. Making matters worse is little or no improvement in defense readiness for the extra dollars invested. DOD has some of the most detailed and stringent financial controls in the industry. Genuine efforts have and are being made to limit the size of DOD inventory and associated carrying costs. Yet, despite these efforts and tight money controls, the situation has gotten worse, not better.

In the private sector, the cost of keeping dollars tied up in such unrealistically high inventory levels with no offsetting increase in sales or customer support would signal sure bankruptcy. Therefore, inventory levels in private industry are a fraction of what DOD carries for a similar item, yet off-the-shelf availability to customers in the private sector is as good if not better than in DOD. Further, in the past decade, the more successful corporations in the private sector (copying the Japanese) reduced inventory levels even further to almost nothing, with programs such as Just-In-Time inventory.

What made the private sector successful in reducing inventory levels and not DOD? Maybe the supplier/consumer relationship and the cost accounting focus are different and, thus, the incentives are different.

My analysis points to the cost of capital or the **money cost** (chiefly interest on loans to finance inventory) as the primary incentive for the private sector. This appears to represent a fairly recent change in incentives. In the past the private sector's focus, like DOD's, centered on labor costs and investment costs, such as purchase price. Competition and the high interest rates in the last decade caused a growing awareness of the significant cost to get money. Capital tied up in inventory cannot be used elsewhere, and interest payments add up until reimbursed by sales. Private industry found that lowering inventory levels meant replenishing the inventory more often to keep customer support rates high, but less inventory on hand shortened the length of time the money was tied up and thereby reduced money cost. Even though running a supply system with a fast inventory turnover often proved more labor intensive, the measurable capital savings could often offset a higher unit price and/or the extra effort by inventory managers, buyers and depots to achieve the savings. Although the extra efforts to reduce inventory levels did undermine the traditional inventory management cornerstone called the **economic order quantity** (EOQ), the efforts did not have a degree of difficulty akin to, say, successfully controlling nuclear fusion. Basic efforts included reducing the supplier base; reducing administrative lead times (the time to award a contract) and production lead times (the time to get a product delivered once the contract is awarded); making smaller, more frequent buys; awarding more long-term contracts that include more frequent deliveries; and/or narrowing the time window for on-time deliveries from suppliers. From these basic actions, other cost savings also added up, such as more reliable vendor delivery, increased demand forecast accuracy, better product quality because of longer-term contracts and a smaller vendor base. The shorter pipeline also meant fewer disposals resulting from factors such as excess or obsolescence.

The private sector's cost focus on accelerating the turnaround on investment exposed other inefficiencies. For example, the penalty for disposal (and also for quality rejects and assets lost, damaged or destroyed in storage) now becomes especially severe

because the penalty represents an investment that cannot be recovered through sales. This is no different from the penalty system in DOD but takes on more significance as an operating cost. In DOD, the entire purchase price of the disposed, rejected or lost item must be added to what would have been a tiny amount of interest paid while the investment dollars were tied up in inventory. When the the DOD system uses total investment as a cost control, the investment dollars are so large that the dollar value of disposals and inventory losses, by comparison, *appear* to be insignificant. This may explain why DOD's investment cost accounting system has no severe penalty for disposals and lost inventory. In fact, DOD encourages disposals to reduce inventory levels, and DOD has used lack of disposal authority as an excuse to explain away and defuse the inventory buildup issue.

In the past decade, the private sector continued to look at investment costs but, more significantly, came to realize it is not how ***much*** money has been invested in inventory (as long as inventory can all be sold), but rather how ***long*** it is invested in inventory. In DOD, the focus remains more or less fixed on total investment and labor costs. For example, the most significant change in DOD during this same time was new Defense Management Review Decisions (DMRDs) to centralize logistics functions to reduce labor costs. Earlier in the decade, federal acquisition legislation stiffened competition and pricing requirements with the Competition in Contracting Act (CICA). The DMRD 926 (Inventory Control Point Consolidation) is expected to save up to $49 million annually once implemented in 1991. The DMRD 926 will reduce labor overhead in the 20 DOD inventory control points (ICPs) that manage wholesale supplies for the military. Starting in August 1991, almost all the consumable types of repair and operating supplies are to transfer from the 14 military ICPs to the 6 Defense Logistics Agency (DLA) ICPs that specialize only in these supplies. The military ICPs will now manage only the more expensive or difficult major end items and depot-reparable items and reduce the work force accordingly. The congressional legislation on competition and pricing (CICA and other mandates) was a knee-jerk reaction to the media-driven horror stories of overpricing spare parts earlier in the decade but has been credited publicly with price reductions on some individual items. On the downside, this type of legislation has led to a longer turnaround on investment on most items with a good pricing history by adding to administrative lead times. This caused more inventory growth. The CICA and similar well-intentioned legislation may prove among the most significant factors causing growth in DOD inventory levels while levels in the private sector are being reduced dramatically.

In addition to not paying interest, DOD may fail to recognize money cost, as the private sector does, because DOD tends to view the supply organization and the final consumer of the goods as one and the same. As a consumer, DOD must be concerned with total investment. However, whether by accident or design, DOD does not recognize that the supply part of the organization only performs a service. Like a distributor in the private sector, the DOD supply organization does not consume the supplies. DOD simply invests in inventory to "sell" it to recover the investment plus a little extra to cover expenses. By failing to separate "service" from the actual "consumption," the DOD logic is to control supply cost by controlling the supply organization's (or distributor's) "consumption" and, to a lesser degree, control the actual user's (military customer's) consumption. In some respects, DOD must control consumption at the level of the supply organization because the military's long pipeline forces an extremely long reaction time to changes in demand. However, such DOD control is highly inefficient. Such control cuts needed items along with less-needed items by forcing the ICP to decide which items

'In addition to not paying interest, DOD may fail to recognize money cost, as the private sector does, because DOD tends to view the supply organization and the final consumer of the goods as one and the same.'

the end user will need most. Thus, customer support and readiness suffer.

The private sector has no choice but to invest in reaction to customer demands. Being out of stock in private business does not just mean a back order: it may mean a sale lost forever to the competition. However, even when the supply organization is a part of the same company and there is no competition, the private sector separates the service function and the department that consumes the supplies. An example of DOD's "supply organization/consumption" mindset is DLA's FY 90 stock fund budget allocation. Anticipating a 5 percent decline in military funding in FY 91 (the Secretary of Defense had proposed a 25 percent cut over 5 years at the time of this decision), the FY 90 stock fund obligation authority for the Defense General Supply Center (DGSC), one of the DLA's wholesale ICPs, was held to 75 percent of DGSC's sales. In other words, DGSC was limited to replacing only 75 percent of what it sold. This was to reduce investment costs and reduce inventory levels, but the replacement limit unwittingly sacrificed customer support on much-needed repair parts and operating supplies at a most critical time (before *Operation Desert Shield* in the Middle East). Fortunately, because of the long lead times, the shortages created by this DGSC fund reduction "bubble" had not impacted yet. Therefore, DGSC supported the initial buildup of forces, and everyone is patting themselves on the back for a job well done. The story may not be the same a few months from now.

Another example of DOD's focus on investment and labor costs is DLA's "unit cost" measure, intended as an incentive and/or measurement to control a supply organization's investment and labor costs. In October 1990, a variation called the "Single Fund Concept" will pass along most of the wholesale ICP's labor and operating costs for the first time in an inflated surcharge added to the unit price paid by the end users. This Single Fund Concept intends to make DLA pay for all operating costs out of sales, as in private business. Although downplayed, the new surcharge in some cases will add nearly 50 cents on the dollar to DLA's prices. Also, the surcharge will likely make DLA's items (many commercially available) noncompetitive and drive many end users to procure more items locally. DLA's sales earnings will decrease. In the long run, costs to DOD will increase by adding more administrative costs at the local level. The surcharge may also undermine DLA in the process. The "unit cost" measurement can act as one tool for DLA to control costs in the face of the Single Fund Concept. The unit cost measurement includes operating costs, but the largest unit cost is "procurement of stock" (based on the total dollars invested in inventory per year divided by the sales that year). This is a necessary measurement in any system to see how many investment dollars are recovered. However, the unit cost measurement wrongly implies that the investment ***itself*** is the principle cost and does nothing to address how ***long*** it is invested, a prime consideration in the private sector. In this system, if you sold exactly what you invested, your unit cost per dollar of sales would be $1 plus the operating costs. Unless more is sold than bought, you cannot realistically keep costs below $1 - the goal - without impacting customer support. In other words, the unit cost measurement not only makes costs appear higher than they are by measuring the wrong things, but also reduces customer support.

This highlights another key difference between DOD and the private sector: the relationship between inventory levels and customer support. Although a major thrust of DLA's unit cost is to decrease inventory levels by buying less than is sold, DLA's unit cost actually counters DOD's need to maintain high customer support. DOD's track record shows that both high customer support and low inventory levels cannot exist at the same time. However, with the present budget situation, DOD appears to be willing to make the sacrifice. On the other hand, the private sector demonstrated that you can have *both* by increasing inventory turnover (hence the rush to Just-In-Time inventory). The Catch-22 for DOD is that its cost accounting would penalize a move toward increasing inventory turnover. DOD provides no way to measure enough savings from avoiding money cost to justify the increased costs of buying more frequently and no way to justify the increased costs of the more frequent depot receipts. Thus, the only option for DOD to offset the additional costs needed to increase inventory turnover is

for the vendors to ship directly to the user and bypass the DOD depot. For example, the Paperless Order Placement System (POPS) developed by DLA is essentially a requirements contract for direct shipment from the vendor's warehouse to the customer. POPS accrues large savings, primarily from avoiding depot handling and second destination transportation costs in DOD depots, but POPS does not reduce total annual obligations (total investment) appreciably. This is because POPS' obligations and sales are roughly equal, as expected in an ideal system. An equivalent system in the private sector would gain the advantage of accruing perhaps more significant savings from the quick return on investment. In POPS, the ICP ties up its money for generally less than two to three weeks per order from shipment date to reimbursement by the customer. However, this money cost savings is not acknowledged and means nothing. The normal system ties up dollars in inventory from three months to three years to support customer orders. In conclusion, DOD's supply system has some of the most stringent financial controls and management practices in the industry. With rare exceptions, though, DOD has not been able to approach the economies achieved by the private sector in reducing inventory levels, at least not without degrading customer support. Ironically, these same controls and practices intended to reduce/control DOD's inventory costs may have led to more cost and growth because the controls measure the wrong things. In short, I see two reasons keeping DOD from duplicating successes in the private sector: (1) failure by DOD to focus on money cost instead of total investment and (2) failure by DOD to recognize that the supply organization is not the final consumer of the goods.

'DOD's supply system has some of the most stringent financial controls and management practices in the industry but has not been able to approach the economies achieved by the private sector.'

These differences between DOD and the private sector are seemingly minor, but a move in this direction would require a fundamental and philosophical break with the past, not to mention the challenge to the sacrosanct economic order quantity However, I strongly believe DOD needs to rethink its cost accounting focus and also stop treating the supply system as the consumer of the supplies. If the entire Soviet Union can question over 70 years of reinforced beliefs and take decisive steps toward a change from a centralized communist system to a free market system, DOD can certainly consider a change to its accounting system. In this age of huge federal deficits, the government borrows money and pays interest just like the private sector. Maybe now is the time for DOD to recognize its money cost and try out the private sector's cost accounting focus. The average inventory level of secondary items (repair parts and operating supplies) in DOD now exceeds $100 billion. This is an approximate $50 billion increase since the early 1980s with no improvement in customer support. A 20 percent decrease in inventory level by increasing inventory turnover would save about $1.4 billion annually in avoided interest payments on the federal deficit and, if done right, would not reduce customer support. However, with the present accounting system, this savings would be recognized by neither DOD nor the public and, therefore, is unlikely.

James E. Stansbury III is the Chief, Review and Analysis Section, Directorate of Supply Operations, Defense General Supply Center, Richmond, Virginia. A graduate of Virginia Polytechnic Institute and State University in Blacksburg, the U.S. Army Engineer Officer Candidate School and the Logistics Executive Development Course, he retired from active duty in 1970. His previous assignments at the Defense General Supply Center include Inventory Manager and Supply Analyst, Review and Analysis Section.

LOGISTICS SUPPORT IN MANUFACTURING

CPT Ronald D. Skidmore

"Manage to Budget." This has become common terminology among many Department of Defense (DOD) activities. Rock Island Arsenal in Illinois is no exception. The arsenal is one of the few government owned and operated DOD manufacturing facilities left. Personnel are reducing production costs to remain competitive with civilian industry and avoid becoming a government-owned, contractor-operated organization.

The manufacturing industry of the 1990s, both civilian and military, found that logistics management is the key ingredient in saving dollars. In February 1990, Rock Island Arsenal began the Arsenal Operations Logistics Management Project to reduce logistics overhead costs and become more competitive with civilian industry. One of this project's goals is developing a Command Supply Discipline Program (CSDP) tailored to industrial operations. Managers will use this industrial CSDP to watch over the arsenal's manufacturing system much the same as the Defense Contract Administration Services Management Activity watches over government-owned, contractor-operated organizations.

PERSPECTIVE

The arsenal is commanded by an Ordnance colonel who has a military deputy and a civilian executive.The civilian executive has operational control of the Arsenal Operations Logistics Management Project. The Arsenal Operations Directorate, the arsenal's manufacturing organization, is responsible for production of various gun mounts and howitzers, most notably the M198 Howitzer and the new M119 Light Howitzer. The Directorate of Logistics and the Directorate of Contracting are sister organizations to the Arsenal Operations Directorate. The Directorate of Logistics provides supply and transportation support to the Arsenal Operations Directorate. The Directorate of Contracting procures nonstandard items and services. The Arsenal Operations Directorate is further broken down into the Factory Division, the Science and Engineering Division, the Production Control Division, and the Industrial Operations Division.

When the Arsenal Operations Logistics Management Project started, several parallel efforts to improve the logistical problems of the Arsenal Operations Directorate were in progress. The Factory Division had a very good turn-in project in its maintenance department. The Production Control Division was automating its tool issue and inventory procedures. While both were excellent efforts, they only addressed a small part of the problem and did not address the logistical "big picture." Major problems faced by the Arsenal Operations Logistics Management Project included:

- **No Centralized Management**

  Each division within the Arsenal Operations Directorate took care of its own supply activities. This did not provide an opportunity to evenly distribute supplies and did not provide management with an idea of the extent of logistical problems.

- **Physical Control and Inventory of Materiel**

  Excess serviceable materiel in the tooling section alone (such as drills, cutters, hand tools and gages) was valued in the millions of dollars. Excesses in other areas were unknown, but the problems of the tooling section were apparent throughout the factory.

- **Requirements Determination**

  A group of planners determined the requirements for the directorate. The planners worked in two groups: tracked vehicles and field artillery. They were further subdivided into cells within these groups. Each planner acted independently with little or no even distribution of supplies or consolidation of requirements. The planners used a Material Requirements Planning stockage method to determine requirements. However, when the planners received a list of materials for production, they ordered all materials necessary to complete the job. Frequently, this resulted in a four-year supply of semiperishable items

such as tires, rubber gaskets and hydraulic fluid (which has only a two-year shelf life).

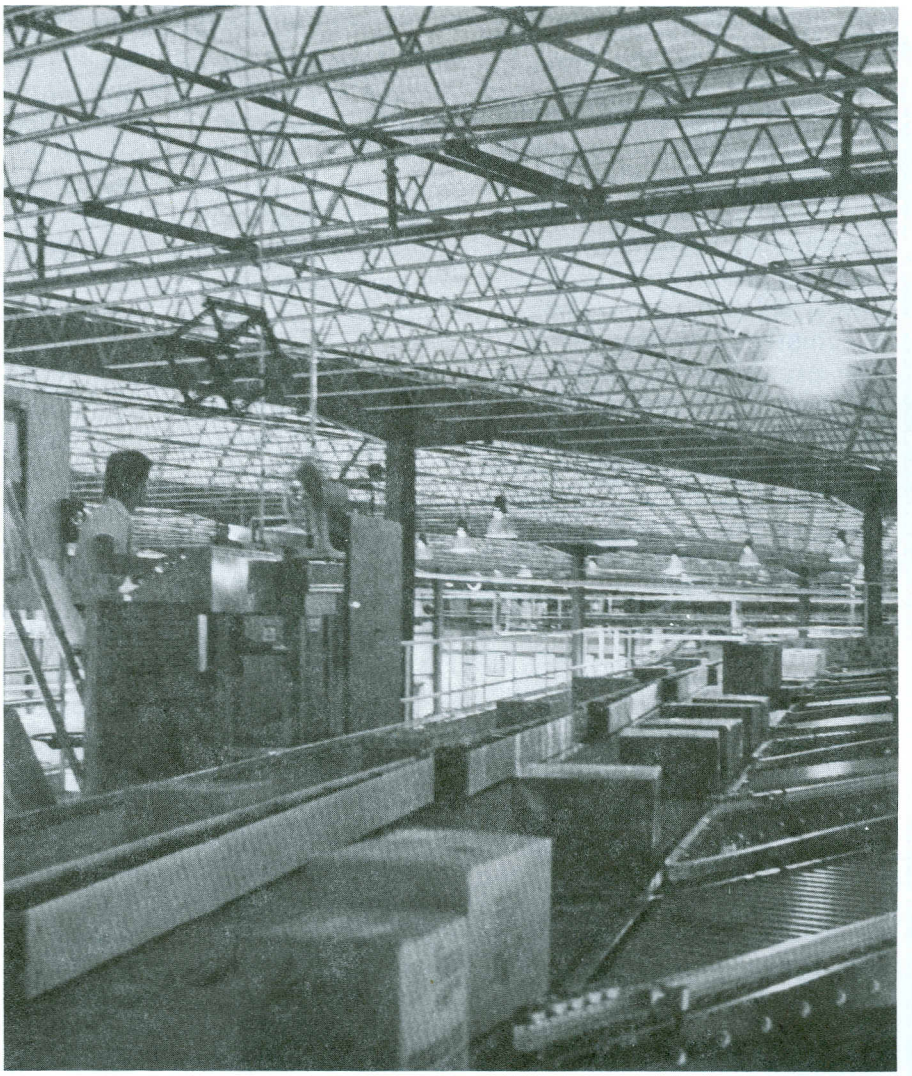
- **Requisitioning**

  The key problem with the requisitioning process was cataloging. Poor management in this area created a domino effect. When single line items were given multiple identities through the requisitioner's lack of expertise, training or direction or through deliberate attempts to isolate common stock for exclusive use, several problems occurred.

  - Each request was seen as unique and created a single purchase. The overhead cost of processing a document is the same, regardless of the value of the item or items requested. Multiple documents were processed instead of some rolled up into one request. A higher volume of requests went on to local purchase, avoiding the Military Standard Requisitioning and Issue Procedures (MILSTRIP) system, and adding to purchase and overhead cost.
  - Demand data was completely lost, not allowing authorized stocks based upon demands to be built and thus increasing order ship times. This further increased the cost of holding inventory because each line item was given its own location.
  - Erratic order ship times and stock levels fueled the perception of nonsupport. This inspired distrust of the "system." The tendency was to overstock, which further obscured demand data and increased management overhead.

- **Training**

  The logistical personnel within the Arsenal Operations Directorate had not received any official training.



In the 1990s, both civilian and military industry find that logistics management is the key ingredient in saving dollars.

LOGISTICS MANAGEMENT PROJECT

The Arsenal Operations Logistics Management project began with four aspects. These aspects were management structure, policy and procedure, automation, and physical plant. They had to develop concurrently for the success of the logistics management project. We began by educating managers about improvements in production

efficiency and budget control from logistics management. We explained how a centralized logistical manager would eliminate the need for their personnel to work in supply. This allowed the direct-labor employee and first-line supervisor to concentrate on production. Developing new policies and procedures and automation went hand in hand. As previously stated, the automation initiatives of the factory personnel were ahead of other logistics improvements. Automating a problem, however, is not solving a problem. This is where we introduced the *Unit Supply Update* and, in particular, DA Pamphlet 710-2-1 (Using Unit Supply System, Manual Procedures). It was important for us to develop new policies and procedures supported by automation, not driven by it. Hopefully, in the future, the automated system will be able to pass requests directly into the Army Materiel Command Standard Installation Supply System, the system used by the Directorate of Logistics.

PHYSICAL PLANT

The physical plant's logistical layout was also costing large amounts of money. The main emphasis here was to place bench stocks forward into the manufacturing and assembly areas. No official forward bench stocks existed at the start of the project because the production managers had found that they could not control their inventory. Work stoppages occurred while the direct-labor personnel on the floor waited for common items such as nuts, bolts and screws. These items, stored in an automated stacker crane, had to be specially requested for each item being assembled. A typical request could take hours to be filled. First, the request must be input to the computer for a high priority. The computer would locate the stock. An automatic lifting device would move to the location in the stacker, pull the items and bring them to the stacker personnel. The stacker personnel would pull the items, then count, bag, tag and place them in a tote pan. Then a fork truck moved items to their final destination. An average "pick" cost over $150 and would take a couple of hours. Some of these "picks" were done on weekends or on overtime for the stacker personnel—all to manage a few 50-cent nuts, bolts or screws. The lack of adequate bench stock procedures cost the arsenal quite a bit of money.

Once we got moving on the four aspects of management structure, policy and procedure, automation and physical plant, we started to develop a centralized logistical management unit which we called the General Support Section. This section was developed using these seven support processes: requirements determination, requisitioning, procurement, receipt and issue, storage and distribution, inventory control, and turn-in and disposition. We then added an eighth process of command supply discipline.

We defined the processes as follows:

- **Requirements Determination:** Determining need; describing item/service as completely as possible; establishing required delivery date; and initiating a genuine request for issue/turn- in/service.
- **Requisitioning:** Editing, cataloging and documenting request for issue; determining stock availability and coordinating materiel release orders (MROs); initiating formal requests to the next higher source of supply; monitoring status and completing the formal record.
- **Procurement:** Acquiring goods and services from locally approved sources.
- **Receipt and Issue:** Checking in, inspecting and sorting incoming materiel; posting receipt transactions; coordinating discrepancy resolutions; and coordinating distribution to the appropriate customer or storage facility.
- **Storage and Distribution:** Determining storage methods; maintaining facilities, locator files, physical inventory and security; coordinating and controlling distribution of inventory; and executing MROs.
- **Inventory Control:** Scheduling, monitoring, compiling and adjusting inventory stock levels; and ensuring inventory accuracy.
- **Turn-in and Disposition:** Identifying, classifying, sorting and documenting items for turn-in; and coordinating distribution.
- **Command Supply Discipline:** Ensuring that the tenets of the U.S. Army Command Supply Discipline Program are established and maintained within the Arsenal Operations Directorate; providing customer assistance and coordinating supply training to the Arsenal Operations Directorate activities; and providing proponent liaison services to the Arsenal Operations Directorate for supply policy, regulatory guidance, surveillance plans and inspections.

T1		T2	T3	T4
INVENTORY		SURVEILLANCE & QUALITY PROGRAM		
PHYSICAL COUNT	RESPONSIBILITY			
CRIB CLERK 30	30	GENERAL SUPPORT RANDOM SAMPLING	DIRECTORATE OF LOGISTICS CSDP SURVEILLANCE PROGRAM	COUNT "5"
CRIB MANAGER 20	50			
STOCK CONTROL 75	125			

LEGEND:

T – Tier

CSDP – Command Supply Discipline Program

Figure 1. Multi-Tiered Random Sample Technique (Normal Sample = 125, Reduced Sample Size = 50)

We next developed a worksheet that broke the processes into two units under the General Support Section. These units were called the Storage and Distribution Unit and the Stock Control Unit. We developed mission and function statements for these units and the General Support Section based upon the support processes. We then further broke the Storage and Distribution Unit into the strategic business units of Receiving, Storage, and Turn-ins. The Stock Control Unit was broken into the strategic business units of Demand Processing and Inventory Management.

We then developed a Table of Distribution and Allowances (TDA) Worksheet with the personnel by type, grade and quantity needed for the mission. All developments went to the arsenal commander who approved the changes to the TDA.

THE FUTURE

Our plans for future operations include the following:

- Use a master scheduling process to allow planners

to consolidate requests for all work ongoing in the Arsenal Operations Directorate. The Directorate of Logistics and the Directorate of Contracting can then use this schedule to develop long-range purchasing and ordering plans to meet Just-In-Time inventory criteria.

- Develop an Authorized Stockage List Review Board consisting of first-line supervisors in the production, maintenance and assembly areas. This review board will develop and refine industrial prescribed load lists for each area of the manufacturing arena. This will allow the General Support Section's chief to develop a logistical support overlay of the physical plant, thus providing more timely support to the direct-labor personnel.
- Use a multi-tier perpetual random sampling technique to inventory durable tooling, gages, bench stocks, fixtures and selected items. I will walk you through an example of this random sampling process (Figure 1). The computer will randomly select 125 stocked items for inventory. The responsible person at the lowest level, or crib clerk in this case, will count 30 items. The immediate supervisor will count 20 items, and personnel in the stock control unit will count the remaining 75 items. The manager of the general support section will then count a random sampling of the initial 125 items to ensure proper and accurate counts in tier 2. The Directorate of Logistics will conduct periodic (at least semiannually) CSDP visits to ensure accurate inventory in tier 3. In tier 4, senior-level managers will count five stocked items quarterly. Tier 4 will show "top down" management support for the inventory process.
- Develop a CSDP checklist for industrial operations using AR 710-2 (Supply Policy Below the Wholesale Level), Appendix B, and a local checklist tailored to industrial operations. The chief of the General Support Section would monitor this program within the Arsenal Operations Directorate.

CONCLUSION

This is a brief overview of an ongoing project at Rock Island Arsenal. I have only skimmed the surface of the many issues that this project faces every day. Issues include a 60 percent local purchase rate due to the uniqueness of the materials required for manufacturing, reorganization through a DOD-wide reduction in force, the interrelationship problems between the Arsenal Operations Directorate and other operational factors such as logistical and procurement support directorates and major command inspections.

The project is far from over. The positions are being filled and the General Support Section is beginning to function, but it will take quite some time before all of the factory is under the section's control. The General Support Section will take in one section of the factory at a time, gain control of its logistical problems and move on to the next section.

This project must have managerial support from the top down to survive. The middle- and senior-level managers within the Arsenal Operations Directorate must believe in the project. The directorate can avoid returning to poor logistical procedures with a solid approach that includes continuous training, surveillance and management support.

Rock Island Arsenal is on the leading edge of logistical management in the manufacturing arena with this project. The arsenal is the first government owned and operated manufacturing facility to develop such an industrial system. This system can be exported to other industrial operations within the U.S. Army Materiel Command. This project, with its continuing processes of management support, training and surveillance is Total Quality Management in action.

CPT Ronald D. Skidmore was a Logistics Management Project Officer, Arsenal Operations Directorate, Rock Island Arsenal, Illinois. He is a graduate of the U.S. Army Officer Candidate School and the Quartermaster Officer Basic and Advanced Courses. He has served as a Forward Support Platoon Leader, A Company, 2d Supply and Transport Battalion, Camp Edwards, Korea. He also served as a Distribution Facilities Specialist, Care and Preservation Branch Chief, Supply and Services Division Chief (Accountable Officer), Directorate of Logistics, Rock Island Arsenal.

Total Package Fielding

CPT Kathy L. Scherer

Ask any soldier how he got the new weapon he uses or where the new tank he drives came from and he will probably tell you, "I don't know, we just **got** them one day. The supply sergeant probably requisitioned them." Most soldiers do not worry about where their equipment comes from, how it gets to the unit or if all the needed tools and publications are available. All the soldier worries about is training on the equipment. That is the goal of the Total Package Fielding (TPF) program. If a soldier does not have to worry about where his equipment and all the supplies that support it come from, he can concentrate on training. Training is the essence of the Army, and supporting training is the essence of TPF.

As the Army continues to field new equipment, a background understanding of TPF will be helpful to soldiers who will be players in the TPF process. This article is not designed to make you an expert or to identify all the problems that could possibly occur. But planning always begins with a firm understanding of concepts, and this article is written with this in mind.

What is TPF?

TPF is a method of fielding new equipment that allows a receiving unit to do little more than show up at a training site. TPF ensures that everything a unit needs to transition to a new piece of equipment is on hand. The TPF concept was first tested in FY 1984 under the name Total Package/Unit Materiel Fielding. In FY 1987, the U.S. Army Materiel Command (AMC) selected TPF as the method for fielding all systems and changed the program's name. TPF minimizes the workload of gaining units by providing one complete system which is operationally ready. This complete package includes the weapon system/end item (with basic issue items and components), associated support items of equipment (ASIOE), special tools and test equipment (STTE), test measurement and diagnostic equipment (TMDE), initial prescribed load list (PLL) and authorized stockage list (ASL) items and a starter set of publications. When TPF is for activating a new unit, organizational support equipment and deployable common table of allowance (CTA) equipment is also fielded.

Why TPF?

Under the old method, the burden was on the receiving unit to ensure all materiel required to field a new piece of equipment was actually on hand. The unit would have to fund, requisition and track all required repair parts, manuals, special tools, associated support equipment and so on. These parts and other supplies came to the unit with no relationship to each other. Sometimes parts got lost or misplaced while waiting for other required parts to come in. Sometimes critical support equipment was not immediately available for issue. All of these supplies and equipment had to be on hand before training began or training would bog down, sometimes even stop. If the new piece of equipment was a pistol, for example, then perhaps the fielding did not require minute planning and execution. If the new piece of equipment was a tank that required repair parts, special tools and other specialized equipment, the fielding could quickly go awry.

TPF removes most of these headaches from receiving units. With TPF, literally everything a unit needs to begin training on a new end item arrives with the end item. The AMC budgets and funds for the materiel and then the command "pushes" it to the units free issue. This procedure allows the user to receive a ready-to-use end item/weapon system.

The TPF Process

Organization and Coordination Phase

The AMC has overall responsibility for fielding new items. The AMC has six major subordinate commands (MSCs) responsible for fielding items they manage. The following is a list of the MSCs and the general items they are responsible for:

Armament, Munitions, and Chemical Command (AMCCOM)-weapons, chemical equipment, shop equipment

Troop Support Command (TROSCOM) - clothing and personal equipment, aerial delivery equipment

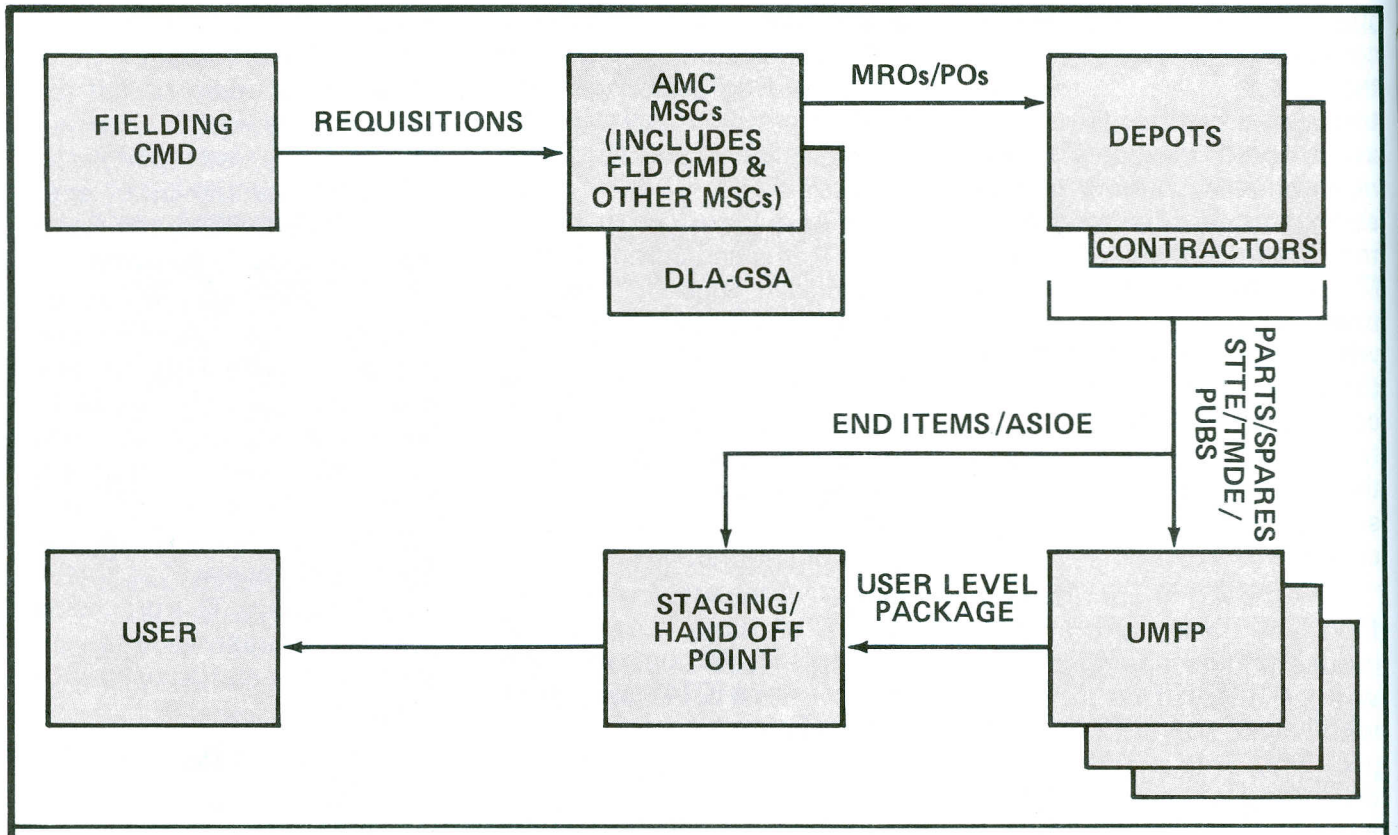
Communications-Electronics Command (CECOM) - communications and electronic equipment

Missile Command (MICOM) - missiles

Tank-Automotive Command (TACOM) - tanks and vehicles

Aviation Systems Command (AVSCOM) - aviation equipment

TPF begins with coordinating materiel requirements between AMC, its designated MSC (such as CECOM for radios, MICOM for missiles, and TACOM for trucks), the project manager, the gaining major Army command (MACOM) and other agencies. The fielding command (one of the AMC MSCs) describes the system and overall requirements in a Materiel Fielding Plan (MFP) or a Letter of



LEGEND:

AMC - U.S. Army Materiel Command
ASIOE - Associated Support Items Of Equipment
CMD - Command
DLA - Defense Logistics Agency
FLD - Field
GSA - General Services Administration
MRO - Materiel Release Order
MSC - Major Support Command
PO - Purchase Order
PUBS - Publications
STTE - Special Tools and Test Equipment
TMDE - Test, Measurement, and Diagnostic Equipment
UMFP - Unit Materiel Fielding Point

Figure 1. Total Package Fielding Concept

Notification (LON). This document is sent to the gaining MACOM for review two years before the fielding. Some areas covered in the MFP or LON are a detailed description of the item, a list of what will and will not be fielded and the responsibilities of the fielding and the gaining command.

Initial Planning Phase

Once the document has been staffed and all changes and corrections have been made, the MFP or LON is printed in final form and a Materiel Fielding Agreement is signed by both commands. The gaining command then develops a Mission Support Plan (MSP) for all units at a specific installation which will receive the new equipment. A force modernization representative at the installation is the point of contact for all the gaining units. The MSP includes specific information, such as each unit's Department of Defense activity address code (DODAAC), unit identification code (UIC) and the unit's computerized supply system. The MSP will also include the quantity of the end item/weapon system each unit is authorized according to the latest authorization documents. Upon receipt, the fielding command verifies the information listed with the authorization documents at its location. In some cases, the units and quantities submitted on the MSP do not match those authorized in documents at the fielding command. One reason is that recent changes in the field are not reflected in the fielding command's documents. This is probably the biggest problem the fielding command encounters in the TPF process. Verifying and resolving authorization discrepancies is a long process and can be a problem throughout fielding. Both commands must resolve discrepancies before fielding, if possible. This makes fielding smoother and helps avoid shortages or excess items at the time of fielding. This problem will probably occur more frequently as we begin downsizing the Army and changing equipment authorzations.

Final Planning Phase

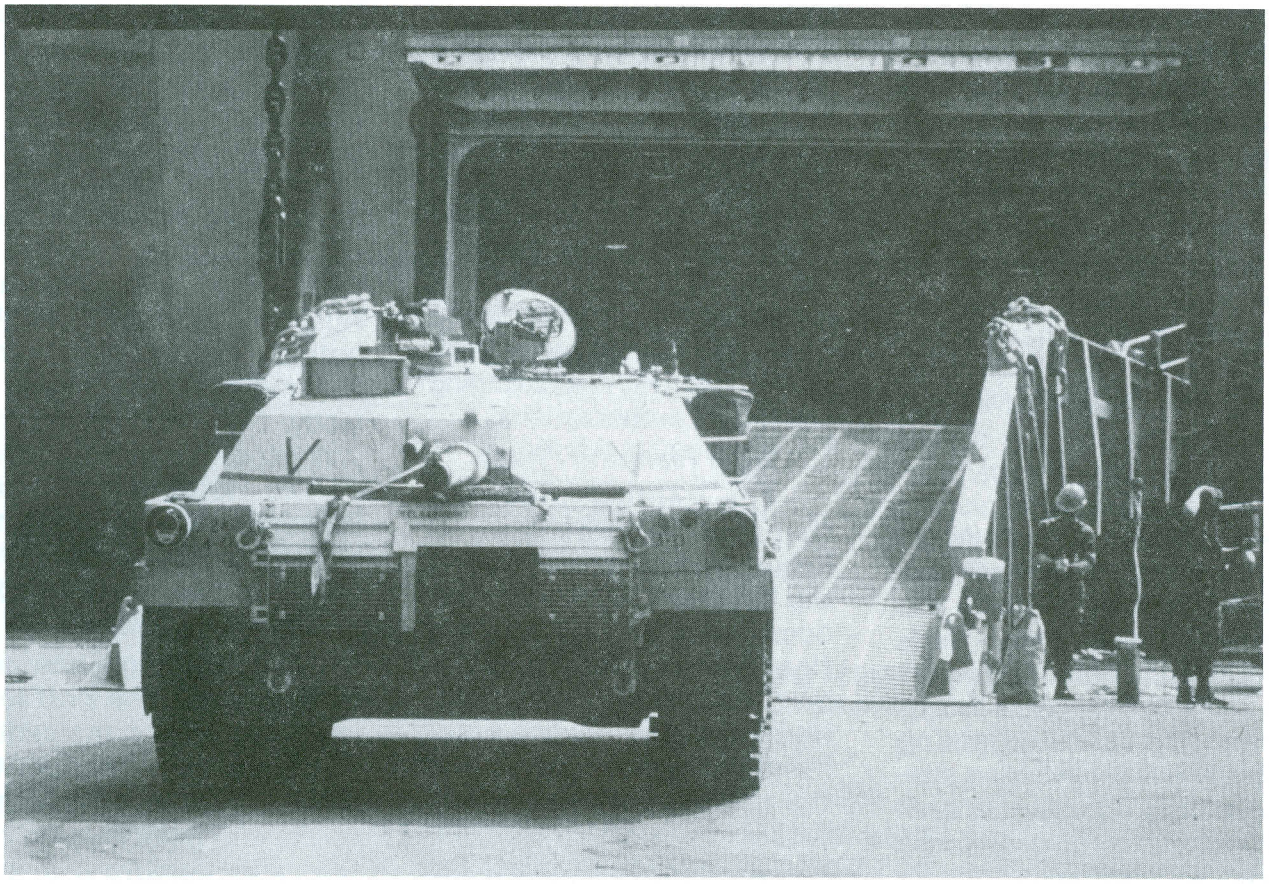
The fielding command then prepares a Materiel Requirements List (MRL) using the MFP, LON, MSP and other documents. This MRL identifies the quantities of equipment for fielding to each unit, items that the fielding command will provide, items that the gaining command must requisition (such as ammunition and medical supplies), the list of publications that will be provided and any other requirements. The two commands negotiate and resolve discrepancies through correspondence and meetings. Once this planning process is complete, the fielding command actually begins the requisitioning process.

TPF Execution

After the proper agency fills the requisitions, the materiel will be sent to a central staging site and secured. This central staging site belongs to the fielding command. Remaining parts will be shipped to a unit materiel fielding point (UMFP). UMFPs are located at the New Cumberland Army Depot, PA, Red River Army Depot, TX, or Sharpe Army Depot Lathrop, CA. Figure 1 illustrates the flow of materiel after the requisitions are processed. The materiel is consolidated into unit packages and prepared for shipment once available. The fielding and gaining commands then schedule a handoff date. Both commands must agree upon this date. Agreement here ensures that both the materiel required and the unit receiving it will be ready. The UMFP releases the unit packages at the request of the fielding command. Packages are shipped to the central staging site for pairing with the end item/weapon system being fielded.

The fielding command must establish a handoff team which travels to the central staging site to conduct the handoff. This team deprocesses the end item/weapon system and performs a joint inventory of the unit packages with the gaining unit. All discrepancies are noted, and damages or shortages are repaired or requisitioned. The fielding command must fill II shortages and process Standard Form 364 (Reports of Discrepancy) or Standard Form 368 (Product Quality Deficiency Report). The gaining unit signs for the materiel after the inventory is complete, thus transferring accountability. The handoff team also assists the gaining unit in establishing accountable records for the materiel. Replenishment supplies are requisitioned by the gaining unit through normal supply channels.

'Most recently, Total Package Fielding proved its value in support of Operation Desert Shield/Storm, where the 1st Cavalry Division and the 24th Infantry Division (Mechanized) were fielded the M1A1 tank.'



TPFs have proven their value in peace and, now, in war. Peacetime fieldings have speeded up the actual fielding process and removed hundreds of burdensome details from customer units. Most recently, TPF proved its value in support of *Operation Desert Shield/Storm*, where the 1st Cavalry Division and the 24th Infantry Division (Mechanized) were fielded the M1A1 tank. Many other systems have been fielded with TPF, including the M16A2 rifle, AH-64 Apache helicopter and the M8A1 chemical alarm, to name a few. The many changes implemented since FY 1984 improved the process and reduced the workload of both fielding and gaining commands. As the Army continues to automate, the TPF process will no doubt become even easier and more streamlined. No matter what the changes, units throughout the world, Active Army, U.S. Army Reserve and U.S. Army National Guard, will continue to receive new equipment through TPF.

For more information on Total Package Fielding, contact Charles D. Royal at Materiel Readiness Support Activity, Lexington, Kentucky 40511-5101. DSN 745-4160/3384 or Commercial (606)293-4160/3384.

CPT Kathy L. Scherer is a graduate of the Indiana University of Pennsylvania, Indiana, Pennsylvania. A graduate of the Quartermaster Officer Basic and Advanced Courses, she has served as a Maintenance Staff Officer, Logistics Staff Officer and Executive Officer to the Deputy Commanding General, U.S. Army Armament, Munitions, and Chemical Command, Rock Island Arsenal, Illinois. She is currently assigned to the 548th Supply and Service Battalion, Fort Drum, New York.

INACTIVATING 'DANGER FORWARD'

CPT Kent S. Marquardt

Editor's Note: As the Army begins its drawdown in earnest, the process of inactivation will become more and more important to the Quartermaster Corps. This article provides a description of a process and its lessons, not seen on a scale of this magnitude since the end of the Vietnam conflict. Not only does this article have relevance in today's peacetime environment, but the author's comments on automated data processing impact directly on wartime sustainment functions.

"Danger Forward," as the 1st Infantry Division (Forward) is called, consists of some of the proudest units in the Army. Cooke Barracks in Goeppingen, Germany, is home to its headquarters and the 3d Brigade's headquarters, as well as the 4th Battalion, 16th Infantry; the 299th Support Battalion; and Detachment 1, 101st Military Intelligence Battalion. The 1st Battalion, 16th Infantry; the 3d Battalion, 34th Armor; Company D, 1st Engineer Battalion; and Company B, 299th Support Battalion are at Panzer Kaserne in Boeblingen. Wiley Barracks in Neu Ulm houses the 1st ID(F)'s field artillery battalion, the 2d Battalion, 5th Field Artillery.

Shortly after learning that the units of the 1st ID(F) would inactivate under provisions of the Conventional Forces in Europe (CFE) Treaty, commanders and staffs began preparations. Until the actual "announcement" date, plans were kept classified. A well-executed inactivation of a separate brigade, or any unit, requires a concise mission statement, a clear commander's intent, and a time line of key events. Logistically, inactivation must address class of supply, maintenance and service support requirements. The key to success was a logical, systematic plan with a great deal of flexibility for changing situations.

Mission

The 299th Support Battalion logistically supported the 1st ID(F) inactivation mission by ensuring the smooth transfer of fully mission capable property; carefully managing government resources; and making sure all units met key milestones. The battalion developed an operation plan (OPLAN) named *Homeward Bound,* set up an operations center and conducted daily update briefings for the command group. After an average of 180 days a year in the field, the brigade took this in stride.The commander's logistical intent had these seven major points.

- *Transfer equipment according to published guidance from higher headquarters.*
- *Ensure 100 percent property accountability.*
- *Minimize costs associated with the transfer of property.*
- *Maintain high morale and a positive outlook.*
- *Execute logistical operations with style and class.*
- *Keep units and external agencies informed.*
- *Prevent fraud, waste and abuse.*

Preparation

Obviously, the lateral transfer of all modification table of organization and equipment (MTOE) was a major undertaking for the brigade. The commander wanted equipment transferred in fully mission capable condition. Several programs were set up to streamline the lateral transfer process. First, the 299th and the division materiel management center (DMMC) organized the following maintenance task force to upgrade the brigade's equipment (Figure 1).

- A Class IX (repair parts) management team located needed parts, whether through Defense Reutilization and Marketing Offices (DRMOs), other direct support units (DSUs) or the normal requisition process. Many times, they located critical parts and ensured a lower report of discrepancy (ROD) rate for the unit.
- The inspection section included experts from the areas of armament, Communications-Electronics (CE) and automotive. This section conducted technical inspections of the equipment to determine what was needed to make it fully mission capable.
- Welding and body work teams directed by the support operations officer were responsible for sanding, body work and welding of all vehicles. These teams were at each of the three kasernes where the brigade had units.
- Chemical agent resistant coating (CARC) painting teams, also directed by the support operations officer, operated at the three kasernes. These teams spot-painted the equipment after the welding and body work.

Since United States Army, Europe (USAREUR) had drawn down to 75 percent and then 65 percent in personnel, the 1st ID(F) took this administrative opportunity to store certain vehicles and equipment that could not be manned. The battalion motor officers designated an administration storage site that was secure and away from daily work areas.

The 1st ID(F) also conducted a supply accountability review supervised by the Assistant Chief of Staff, G4 (Logistics) and DMMC. The review included a commander's validation where each company commander checked his property and supply records to ensure that parts and tools were on order and accounted for. Then the DMMC, with battalion S4s (Logistics Officers) and company supply sergeants, posted any change documents, administrative adjustment reports (AARs) and serial number changes to the property book. Also, the general supply office (GSO) ensured submission of any necessary requisitions.

Finally, the battalion carried out an intense technical inspection program. Beginning with organizational-level inspections of each piece of equipment, all deficiencies were identified and corrected. Next, B Company, 299th and the DMMC materiel management division (MMD) conducted direct support (DS) level inspections. The DS inspectors, in many cases, identified and corrected more deficiencies.

Execution

The inactivation of the 1st ID(F) was conducted in three increments. This way, it was possible to "collapse" the brigade in a systematic matter. The maneuver battalions located at other kasernes were inactivated first (Increment 1). Next, the maneuver battalion closest to the support battalion was inactivated

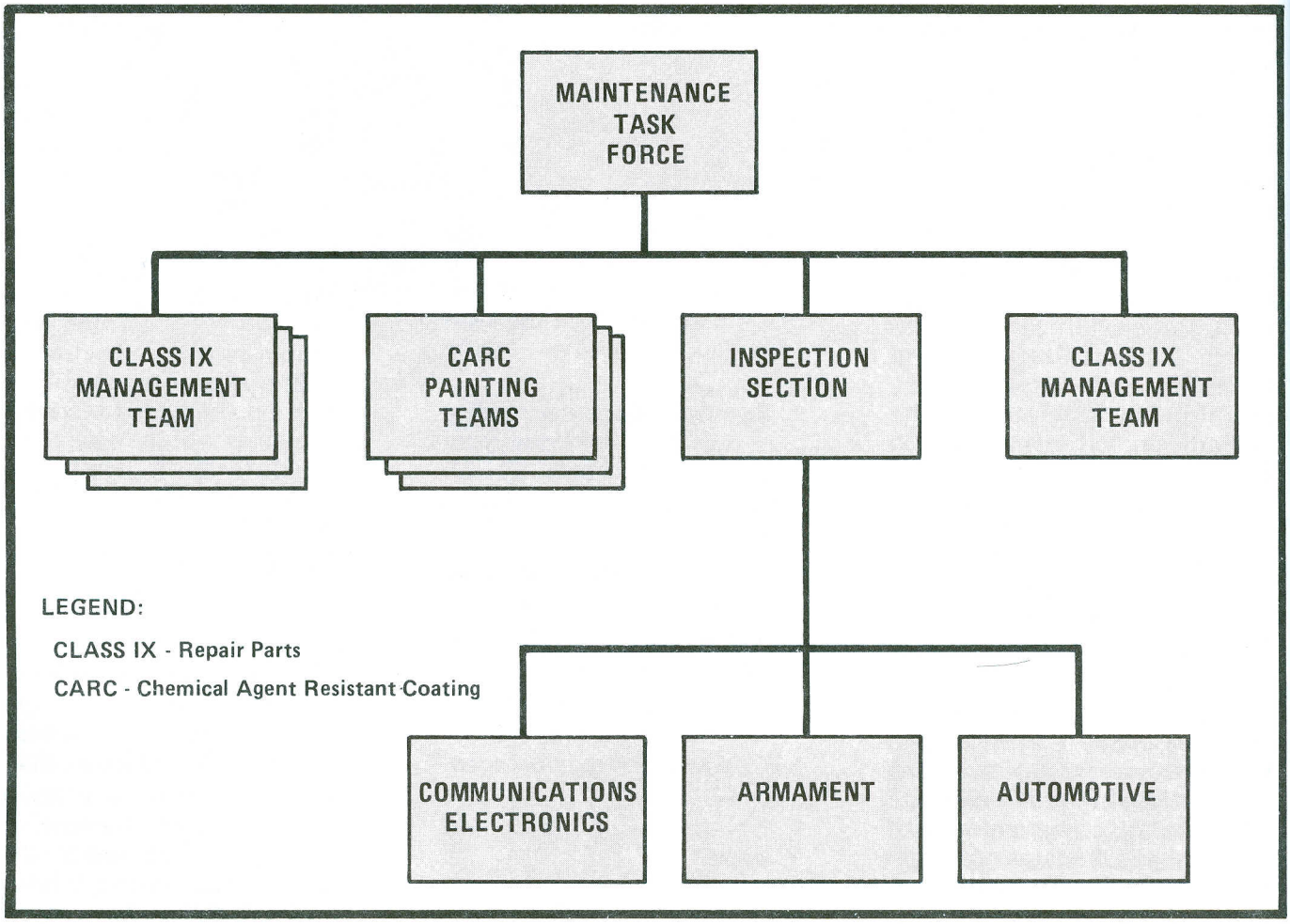


Figure 1. Maintenance Task Organization

(Increment 2). Finally, the 1st ID(F) Headquarters and Headquarters Company (HHC) and the support battalion were closed (Increment 3).

The 200th Theater Army Materiel Management Center (TAMMC) used an equipment redistribution model to distribute the 1st ID(F)'s equipment throughout Europe. Whatever this process designated as excess was turned in to the Combat Equipment Group, Europe (CEGE). The Commander in Chief, USAREUR directed lateral transfer of equipment to other units, preventive maintenance checks and services (PMCS)-ready and to CEGE according to Technical Manual (TM) levels 10/20 standards. The process began with freezing the unit's property book for 10 days. During this 10-day period, the unit scrubbed the property book and posted any necessary changes. Then, the property book was transmitted to 200th TAMMC for them to designate "homes" for each piece of equipment.

In the initial stages of the inactivation process, we developed a redistribution model. We quickly organized a central lateral transfer task force after we saw the duplication of effort and the scheduling confusion the model caused. This task force conducted lateral transfer scheduling, information dissemination, coordination and tracking for a complete and smooth transfer of equipment to designated units. The Property Book Coordinating Team (PBCT) (Figure 2) greatly enhanced ability to transfer equipment. A G4 liaison provided policy guidelines and the property book officer (PBO) made "single point of contact" coordination with each major subordinate command (MSC). The key was the unit action officer for each unit who was on the phone for direct scheduling and coordination. A room was set up and a "tactical operations center" was established with commercial and ETS phone lines. A facsimile (FAX) machine and computer data base greatly aided tracking capability. This operations center provided the unit action officers a central location away from their units and close to the PBO to work. Systematic tracking (phone logs, tracking boards and scheduling boards) of each unit's property enabled the 1st ID(F) to stand down in an orderly and effective way - ahead of schedule - while keeping the command group constantly abreast of the situation.

The PBCT also directly contributed to VII Corps record deployment to *Operation Desert Shield/Storm*. By working closely with deploying units and freezing all other transfers,the 1st ID(F) was able to transfer over 200 million dollars worth of equipment to deploying units in a 30-day period. Even more incredible, the 1st ID(F) simultaneously deployed over 1,200 soldiers to conduct port support operations in Southwest Asia. One procedure that greatly enhanced the deployment was the ability of several 1st ID(F) units to conduct mass unit equipment rollovers. The VII Corps formed a Crisis Action Team (CAT) to authorize equipment transfer. The CAT and Corps G4 materiel readiness (MR) office had a tough time tracking transfer directives because of the haste to deploy and the quantity of transfers. The PBCT went to 24-hour operations and conducted the coordination, tracking and scheduling of almost 40,000 pieces of equipment.

Tracking the Drawndown by Class of Supply

To inactivate the logistical support of the 1st ID(F), we had to address each class of supply and service. The *Homeward Bound* mission continued on course after the deployment of VII Corps, with the 1st ID(F) logistically supported by V Corps.

Class I

Because each unit ended collective training at E-120, we could begin the turn-in of each unit basic load (UBL) of Meals, Ready to Eat (MREs) after that date. The veterinarian had to inspect each UBL before turn-in to a designated Troop Issue Subsistence Activity (TISA).

Class II

At E-120 unit requisitions were filled on a local "fill or kill" basis. Because of record high order ship times (up to 120 days because of *Operation Desert Shield/Storm)*, to continue to order after this date was futile. Units wanted to obtain as many items as possible to fill their shortage annexes because of turn-ins to CEGE. Since CEGE takes equipment at TM 10/20 standards, RODs are prepared for any shortages. So, incomplete sets, kits and outfits (SKO) received a ROD. Each unit was told to turn over equipment as complete as possible (as per the commander's intent). Therefore, RODs were as low as possible. At E-90 GSO canceled all requisitions (bottoms up). The DMMC requested universal cancellation (top down) at E-75. GSO began turn-in of the Class II (general supplies), IV (construction and barrier material) and VII (major end items) warehouse on E-45. At that point, all shipments were ended through the local movement control team (MCT).

Class III

Units were requested to identify essential needs for packaged Class III (petroleum, oils and lubricants) products upon notification. GSO conducted an attrition of the packaged products throughout the drawdown. Additionally, toward the end of the process, command inspections of out-of-the way areas identified missed items. Units turned in these on a case-by-case basis.

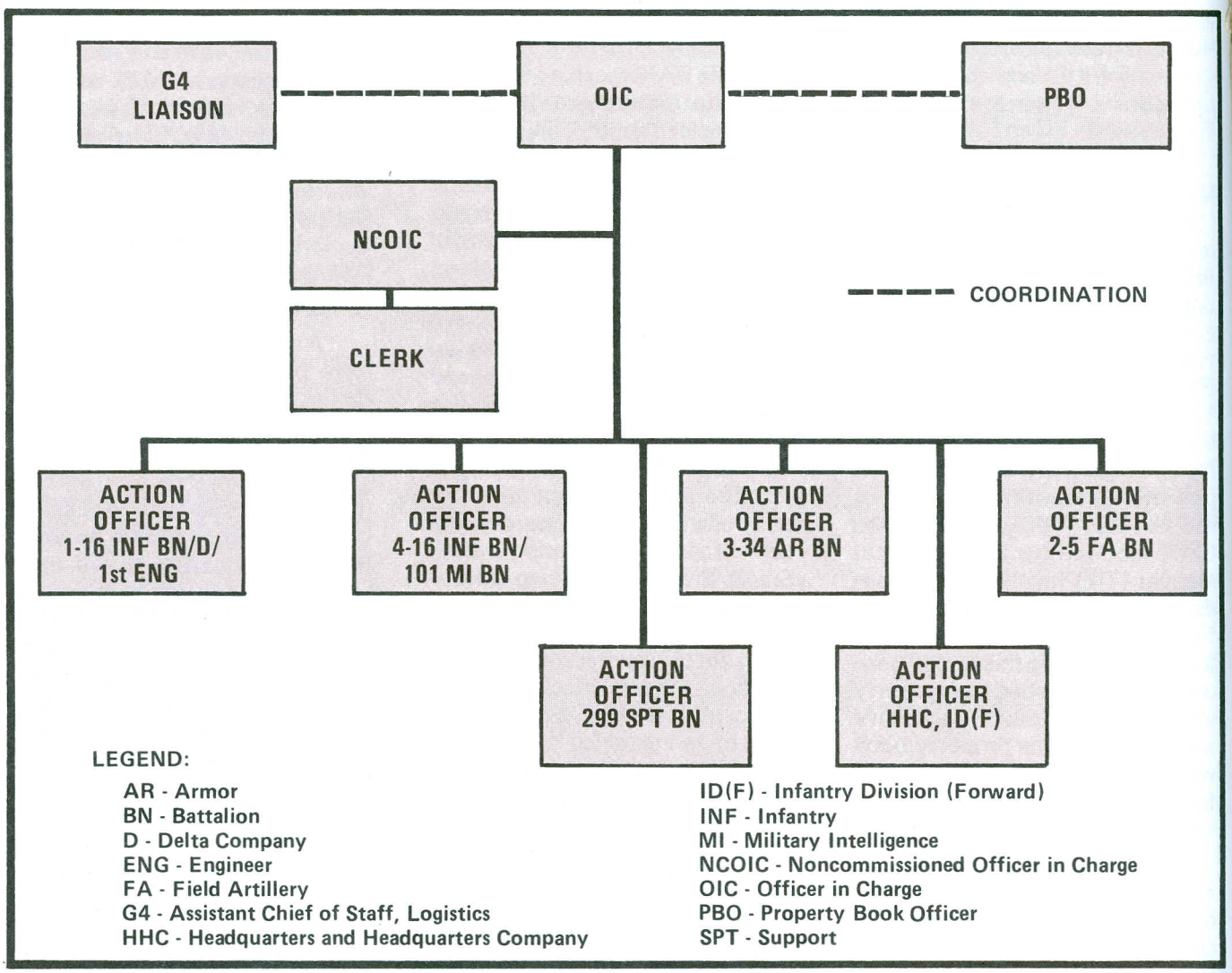


Figure 2. Property Book Coordinating Team (PBCT) Task Organization

Bulk fuel accounts were necessarily kept open until E-60. At E-45 the last fuel tanker was purged. The community assumed any remaining fuel requirements, less aviation.

Class IV

Class IV was scheduled as one of the first classes of supply turned in. However, because *Operation Desert Shield/Storm* required increased security at USAREUR installations, we kept a basic load of pickets and concertina wire on hand. With the end of the war and a drop in security requirements, the last Class IV was turned in before the 299th lost its hauling capabilities.

Class V

The 1st ID(F)'s UBL was maintained at both a basic load storage activity (BLSA) and a prepositioned stockage point (PSP). Turn-in was at E-120, with some of the stocks going to deploying units. The remaining training and operational ammunition was turned over to the community.

Class VII

All Class VII requisitions were canceled upon announcement. Arrangements for equipment transfers were made as soon as disposition instructions were published. The goal was to have all equipment gone by E-30 (T - date). 1st ID(F) equipment went to every MSC in USAREUR. MSCs with shortages that could be filled were told to pick up the equipment. All other equipment went to CEGE. At E-75 the United States Army Materiel Command verified all Class VII cancellations. All property books were then posted and closed with the company commanders signing blank hand receipts to verify transfer of all property. After an audit by the VII Corps audit team, the last property books were transferred

to 19th Materiel Management Center (MMC).

Class VIII

All requisitions were canceled after the maneuver battalion aid stations closed. Shipments were stopped or diverted at the supply support activity (SSA) in Pirmasens. The local dispensary handled further support requirements.

Class IX

Initially, the thought was to cancel all requisitions upon announcement. However, in keeping with the commander's intent to transfer fully mission capable equipment whenever possible, Class IX (repair parts) requisitions were kept open until E-75 in order to keep repair parts coming in until the last piece of equipment was gone. Local "fill or kill" began at E-120, and all requisitions (except for 0-2) were canceled at E-75. The final action was shipment cancellations at E-45.

Cancellations

At E-75 universal cancellations were requested through the Logistic Control Activity (LCA) in San Francisco, CA. The cancellations were verified through electronic mail. Also, we requested diversion of all shipments through the VII Corps MCT. All shipments, after E-45, were diverted to the nearest regional storage activity (RSA).

LESSONS LEARNED:

Reports of Discrepancies

CEGE personnel use TM 10/30 or, in some instances, condition code B (serviceable-issuable with qualification) or better standards for most RODs. This difference in standards proved confusing and frustrating for the inactivating unit personnel. An example of this difference was the acceptance criteria for M113 road wheels. While the TM allowed for some missing chunks and splits, the application of condition code B required road wheels free of missing chunks and splits. This resulted in these vehicles being "RODed" for unacceptable road wheels. An OH-58 was inspected and "RODed" for a missing left-hand platform. However, the platform was not listed on the original packing list or in the applicable TM. Also, if a company commander authorized a mechanic to use an 8-inch wrench instead of a 6-inch wrench as long as it accomplished the same mission, the unit was "RODed" for the missing 6-inch wrench. In addition, the command group insisted on using RODs as a performance evaluation. (The unit with the lowest RODs, obviously, had the better maintenance program and posture.)

Here are examples of how RODs can be "misinterpreted" as an evaluation tool. One unit was credited, upon inactivation, with RODs totaling only $7,000 for the whole battalion. Six months later, after all paper work had been posted and the entire unit completed permanent change of station, the unit had RODs of over $20,000. In some instances, the use of RODs contributed to delinquencies of turn-ins with CEGE. These, in turn, caused CEGE personnel to remain longer on station (temporary duty). In other instances RODs resulted in scheduling and conducting an inspection. The unit tried to fix the equipment to avoid a ROD, and then find a home for the equipment at another unit that would accept it at PMCS-ready standards. These are but a few examples. The use of condition code B should be reserved for depot-level overhaul operations, and TM 10/20 standards should be used uniformly by CEGE personnel.

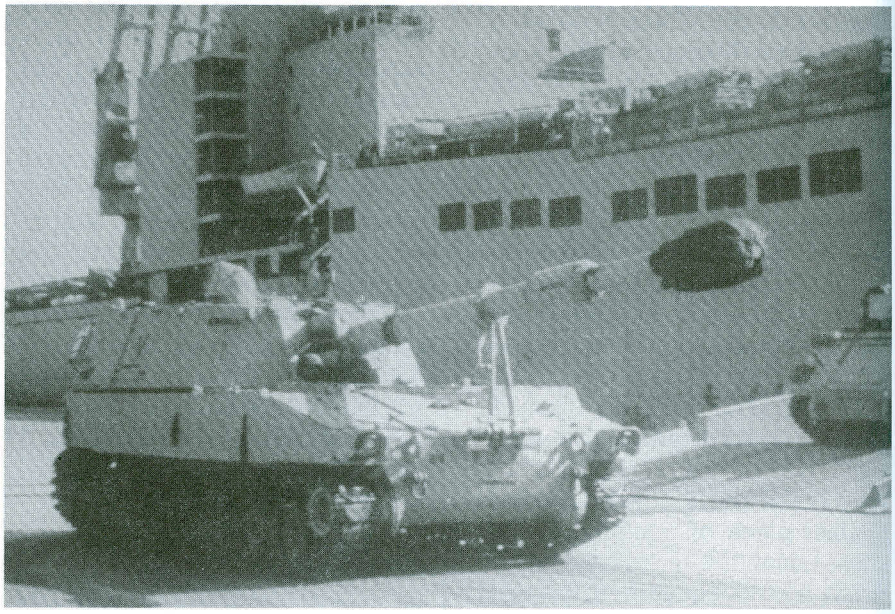
Lateral Transfer Processes

It is difficult and inefficient to conduct and coordinate lateral transfers with each designated unit (company or battalion). One division established a lateral transfer team which came down for a week, inventoried and inspected equipment and signed for it. All equipment for the team was displayed in a central location. This system worked exceptionally well as opposed to dealing with each company. This division was able to conduct all of their transfers in a two-week period. Another division had a decentralized system and took over a month to pick up less equipment. It is recommended that each MSC establish a lateral transfer team composed of a PBO representative, equipment inspectors, operators and gaining unit representatives. Also, this team should come to the transfer site for the time necessary to conduct an intensive inventory and sign for all required equipment. Divisional units should use the main support battalion (Class II, IV and VII warehouse personnel, light and heavy maintenance company inspectors and transportation company personnel and trucks) and DMMC (PBO) as the nucleus of the team.

Receiving Unit Data Base Inaccuracies

Coordination for lateral transfers proved an unexpected challenge because of the number of rejections of equipment that units were designated to receive. Unit property book officers stated numerous reasons for the rejections: items received from theater or from internal transfers, items no longer authorized due to MTOE change, unit inactivation, and so on. Most property book personnel could not readily tell what they needed or, worse yet, what they had on hand. The turbulence in property caused by massive internal MSC lateral transfers (in support of *Operation Desert Shield/Storm* deployment),

The Property Book Coordinating Team also directly contributed to VII Corps record deployment to *Operation Desert Shield/Storm*....the 1st Infantry Division (Forward) was able to transfer over 200 million dollars worth of equipment to deploying units in a 30-day period.



Operation Clean-Up (residual equipment left after deployment), and residual fill of shortages from theater stocks were major causes of confusion. I recommend that commanders at all levels within USAREUR ensure property records reflect current balances on hand. This is the basic premise of property accountability. For future, centrally managed programs to be effective, weekly bottoms-up property book updates must be conducted to provide an accurate data base. In addition, policy must establish which program has priority: CFE, *Operation Clean-Up* or residual fill. The continued, simultaneous execution of all programs will result in data base inaccuracies and duplication of effort.

Document History Transfer

The deployment of 800th MMC (VII Corps) required the download and transfer of Standard Army Intermediate Level Supply System (SAILS) document history for nondeploying DS4 (Direct Support Unit Standard Supply System) activities to the 19th MMC (V Corps). The 800th MMC attempted to transfer the applicable records to a tape. This tape was processed in the 19th MMC's SAILS cycle. This attempt to transfer document history failed. SAILS experts were contacted from 200th TAMMC and the United States Army Combined Support Command (CASCOM) at Fort Lee, VA. They too were unable to establish the 800th's records at the 19th MMC. This lack of document history resulted in a void at the intermediate level. This prevented requests for status to the wholesale level and status from the wholesale level to pass through SAILS. DS4 activities were "blind" to the status of requisitions and could do nothing to change the situation, such as request cancellation or process receipts. This is a very important "eyeglass" for an inactivating unit. Bottoms-up reconciliation rates remained unacceptably low from December through April. Several attempts at mass reestablishment (document identifier code ATA) failed. The problems encountered in the document history transfer at the intermediate level indicate a serious vulnerability in logistics automated data processing. Procedures must be established and practiced in peacetime to allow the immediate transfer of document history in a wartime environment. The transfer of document history for units cross-attached during a prolonged conflict is essential to logistical success. Inactivating units should plan their drawdown in a systematic way.

CPT Kent S. Marquardt is the Commander, 53d Heavy Materiel Supply Company, 3d Corps Support Command (V Corps), Hanau, Germany. A graduate of Texas A&M University, College Station, he is also a graduate of the Air Defense Artillery Officer Basic, Quartermaster Officer Advanced, Airborne and Air Assault Courses. He has served as a Platoon Leader, Battery Executive Officer, Battalion S1, Battalion S3 and, most recently, as Assistant Division Materiel Management Officer, 1st Infantry Division (Forward), Goeppingen, Germany.

POMCUS: *Ready When You Are*

LT Kevin J. Scanlon

Prepositioning of materiel configured to unit sets (POMCUS) is a subject familiar to relatively few officers, including Quartermaster Officers. However, considering both the large role of POMCUS in the recent ground war against Iraq and the considerable drawdown of U.S. forces in Europe, prepositioned materiel will play an even larger role in the U.S. Army's future. Quartermasters need to know about the POMCUS mission because more and more Quartermaster Officers will deal with this low profile but highly important mission.

Mission

Combat Equipment Group Europe (CEGE) carries out the traditional mission of POMCUS. CEGE, with headquarters in Mannheim, Germany, consists of four battalions (totaling 15 combat equipment companies or CECs) located throughout western and northwestern Germany, eastern Belgium, eastern Holland and the United Kingdom.

CEGE receives, preserves, configures, stores, maintains and issues prepositioned material. This mission originally developed in response to the increased Soviet threat of the 1960s and 1970s. The mission provides not only a source of deterrence but also plays an active role in providing instant combat equipment to units deploying from the continental United States (CONUS) that have no time to take their own equipment. The equipment stored in POMCUS is based on the wartime requirements of the given units drawing from POMCUS.

The four categories of equipment for POMCUS include the following:

- **PREPO**-"Prepositioned Equipment," equipment authorized and actually stored in POMCUS warehouses.
- **TAT**-"To Accompany Troops," equipment that units must bring with them on aircraft when deploying from CONUS, such as individual weapons and clothing, and special tools.
- **NAP**-"Not Authorized Prepositioning," items that do not store well for long periods or are too expensive to store, such as automated data processing items, Air Defense Artillery items, and missiles).
- **NAP-D**-"Not Authorized Prepositioning - Deferred," items not needed early in combat and left in CONUS to be called forward as the need arises, such as training equipment.

The POMCUS Quartermaster Officer generally deals only with PREPO items, but all four categories play an integral part in making the POMCUS system work.

Storage

POMCUS storage sites are funded by both the North Atlantic Treaty Organization (NATO) and the host nation. NATO provides funding for design and construction while the host nation provides the land, access roads and utility hook-ups. All POMCUS stocks are stored in either battalion-or company-size sets outdoors or indoors. Tanks, armored personnel carriers, self-propelled artillery, crew-served weapons, most wheeled vehicles, sets, kits and outfits and authorized stockage list prescribed load list (ASL/PLL) items are stored indoors. Flatbed trailers, 5,000-gallon tankers and small cargo trailers are stored outside.

Controlled humidity warehouses (CHWs) provide inside storage that maintains constant temperature and moisture to retard rust on metal surfaces and prevent drying out of rubber seals. Each CHW covers the approximate area of a football field.

All items stored in CHWs are processed through cyclic maintenance every four years. Items stored outside receive maintenance biannually because of increased deterioration from the elements.

Desert Shield/Storm

During the war with Iraq, CEGE and POMCUS played a silent but very important role. POMCUS contributed approximately 15 percent of the total armor on the ground in Southwest Asia. Overall, the total value contributed to the operation approached one-half billion dollars.

When Iraq invaded Kuwait early last August, CEGE personnel immediately began preparing the M1A1 tanks in its inventory for shipment. At the same time, CEGE headquarters and the battalions set up operations centers with facsimile (FAX) machines to receive and immediately send out equipment taskings 24 hours-a-day to speed up support to deploying U.S. Army, Europe (USAREUR) units.

It became clear during the earliest phases of *Operation Desert Shield* that CEGE's POMCUS stocks could not only be used to issue complete unit sets at once, but also to adapt to the

flexible mission of issuing only specific types of equipment to a variety of units not normally associated with POMCUS.

For example, one deploying unit from VII Corps may have needed a dozen radios or installation kits to become mission capable, while another may have needed a 10,000-pound forklift or a generator set. Eventually, CEGE shipped everything from mine detector kits to complete mobile army surgical hospital (MASH) hospitals.

Once requested, equipment was readied quickly. At the same time, CEGE arranged to ship the equipment. CEGE coordinated air, rail and ship transportation several times daily with the appropriate Air Force or ground transportation authorities. Rail cars quickly grew scarce throughout Europe as they were drawn from all corners of the continent to support the mission. Ships and barges also came into short supply since so many from Europe and elsewhere were already enroute to the Persian Gulf. Frequently, equipment waited for one or more **weeks** for transportation assets. In CEGE, coordinating transportation requirements is just another of the many skills the Quartermaster Officer develops.

Experience

A Quartermaster Officer in the CEGE system gains invaluable experience in equipment accountability and maintenance. The officer also gains familiarity with an enormous variety of equipment and with supervision of foreign national and American civilian personnel, as well as U.S. soldiers.

A supply officer or property book officer (PBO) of a combat equipment company expects to have 5,000 to 8,000 major end items on hand with a total value of $300 million or more. Maintaining accountability of all that equipment is difficult. However, the coming of the Standard Property Book System-Revised (SPBS-R) to CEGE brings the property book to company level and makes accounting for equipment somewhat easier.

As unit Modification Table of Organization and Equipment (MTOE) changes in CONUS, equipment continuously moves throughout the CEGE system. The supply officer and PBO must ensure that all equipment received is sub-hand receipted down to the individual warehouse managers in a timely manner and that all outgoing equipment is properly documented. Cyclic maintenance further complicates matters because a supply officer may have up to 13 different warehouse managers whose equipment continually moves through maintenance. Also, managers must constantly document the equipment's whereabouts.

While at the U.S. Army Quartermaster Basic Course, second lieutenants train on basic maintenance procedures. However, while working at a combat equipment company, the Quartermaster interacts with maintenance on a regular basis. Quartermasters will learn a little bit about everything from repairing M1A1 engines and self-propelled howitzer gun systems to preserving the assets of a transportation company for storage. The CEGE Quartermaster's scope in the supply field widens considerably when supplying equipment to the user, particularly on a continental or global scale. Quartermasters have the opportunity to learn how to better estimate what will go wrong or right with a given logistics mission.

Personnel Management

Undoubtedly, most challenging to the Quartermaster Officer at a CEC is learning how to mold a cooperative, interactive team from a work force made up predominantly of foreign nationals and U.S. civilians, with only a handful of soldiers.

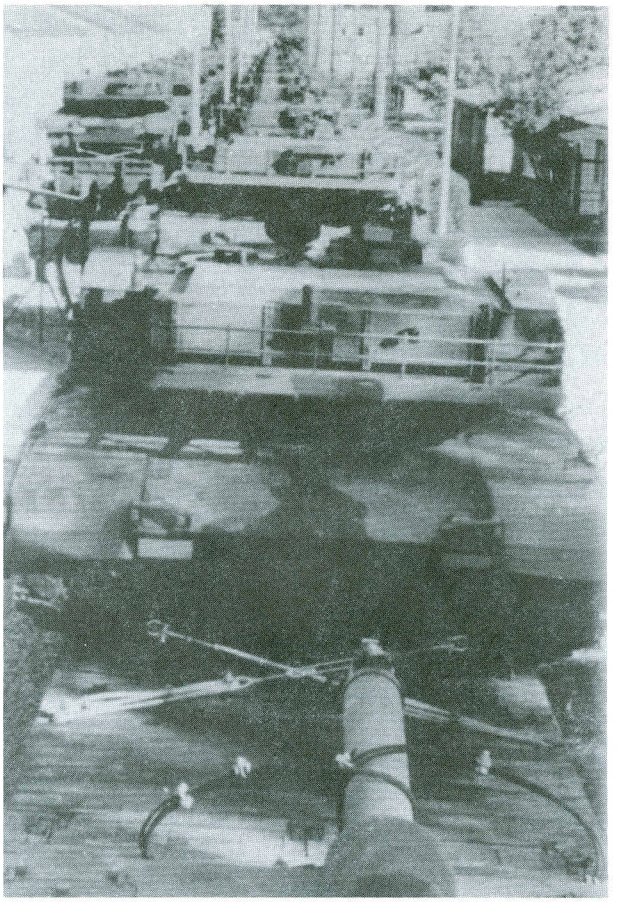
At the 3d CEC in Karlsruhe, Germany, during *Operation Desert Shield*, the work force totaled 208 civilians and only 24 soldiers. Although the local national employees had German citizenship, they also had **22** national origins. Employees came from such diverse countries as Algeria, Bulgaria, Poland and Ethiopia. Language aptitude (of the host national language, **not English**), work habits, dedication to mission and personalities were as different as snowflakes. Couple this diversity with working with the local employees' union (in Germany called the "works council") to resolve employee/management, problems, the officer's plate is full. Officers at company level learn the arts of personnel management and compromise quickly to meet mission needs as well as the rules set forth by the "Tariff Agreements." Finding the middle of-the-road for employees and supervisors keeps the mission moving. Article 15s and the Uniform Code of Military Justice do not exist. The officer is constantly tested on the ability to motivate and manage people by meeting their needs while satisfying the Army's. A tough challenge...

Issues for the Officer

The Quartermaster Officer may face several problems inherent in the system.

- Soldiers in a CEC, the minimum number, normally are staff sergeants or sergeants first-class. They are generally extremely well-qualified to hold supervisory positions. In many instances, the problem is that their positions are mirrored by civilian counterparts. By placing a valuable noncommissioned officer (NCO) into a

'During the war with Iraq, Combat Equipment Group Europe (CEGE) and prepositioning materiel configured to unit sets (POMCUS) played a silent but very important role. POMCUS contributed approximately 15 percent of the total armor on the ground in Southwest Asia.'



position already held by a civilian, there is little for the NCO to do in terms of supervising within the sections. The NCO has difficulty finding a "place" because the civilians already have a civilian local national supervisor. In many cases, civilians will reject the dual supervisor role, particularly if the NCO has not been given formal training in working with European civilians. The work environment in Europe is considerably different.

- The regulations which govern employer/employee relations are called the Tariff Agreements and are negotiated between the U.S. and the host nation. These agreements outline the responsibilities and expectations of both the employer and the employee. They are necessary because the work environment and social systems of other countries differ from those of the U.S. Without these agreements, the idea of bringing together people from different cultural backgrounds to work in unison would be an impossible task. While carrying out the mission, the Quartermaster supervisor must ensure that the requirements of the Tariff Agree-ments are upheld, although at times it may seem that they hinder the mission. Actually, they are designed to move the mission along by providing guidelines to help eliminate "culture clash" by specifically defining workplace responsibilities. These agreements apply only to foreign national civilians and not to U.S. civilians who may also be working in the unit. They fall under U.S. government guidelines.

Handling three different systems for the U.S. military, U.S. civilians and foreign nationals will test every ability you **thought** you possessed to motivate people.

POMCUS' Future

Doubtlessly, POMCUS will remain as a cornerstone of the European defense structure for years to come. However, the focus on POMCUS recently shifted to the possibility of installing it as one regional stabilizing element within Southwest Asia. At this time, a number of world allies are discussing the feasibility of prepositioning combat equipment within that theater. A British officer in the United Nations-Iraq-Kuwait observer mission was quoted in the July 8, 1991, *Boston Globe* as saying that a division's worth of equipment and enough people to maintain it may be located in the United Arab Emirates.

CEGE has proven itself as a major deterrence to the Soviets for nearly 30 years and recently demonstrated reliability and flexibility in supporting the war against Iraq. POMCUS has earned its place and will play an increasing role for the U.S. Army. The Quartermaster of the future will play a vital role in executing the POMCUS mission.

LT Kevin J. Scanlon was the Supply and Property Book Officer and Unit Movement Officer, 3d Combat Equipment Company, Karlsruhe, Germany, during Operation Desert Shield/Storm. A graduate of the University of Massachusetts, Amherst, he also completed Officer Candidate School, Quartermaster Officer Basic and Advanced Courses. He has previously served as a Platoon Leader, Troop Issue Subsistence Officer, Petroleum Officer and a Self-Service Supply Center (SSSC) Accountable Officer.

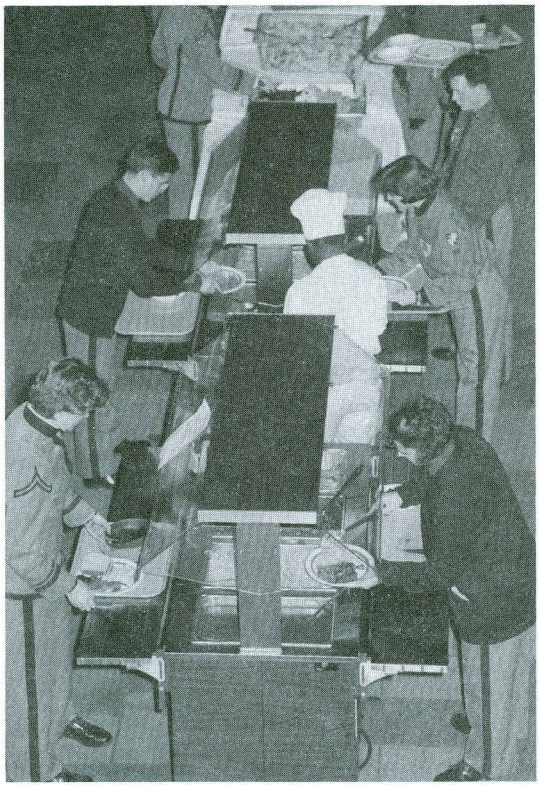
CHANGING FOOD SERVICE TRADITION

MAJ Shirley L. McGuire

Editor's Note: By any standard in the world of Army food service, the Cadet Mess serving the Corps of Cadets at the United States Military Academy is a mammoth operation. The author is the officer in charge of the Cadet Mess. Her preparation for this assignment included a year with the Marriott Corporation while participating in the Training With Industry program. While the Cadet Mess is not typical of most Army dining facilities, some insight into this operation may provide some ideas on how to improve unit dining facilities.

Most people tend to think the United States Military Academy at West Point, NY, changes very little, with nearly 200 years of tradition. Nothing could be further from the truth, especially at the Cadet Mess. Although the largest food service operation in the Army with an annual budget of approximately 15 million dollars, the Cadet Mess faces the same challenges as every other Army dining facility. How do we make our meals more nutritious, keep our customers happy and manage with dwindling resources?

Until recently, the 4,400 cadets at West Point dined family style for the three mandatory meals a day. Cadets were seated 10 per table and given platters of food to serve themselves. This was necessary because the breakfast and lunch meals were less than 25 minutes long. For these brief meal periods, all cadets need to be served almost simultaneously. Today, while breakfast and lunch remain mandatory with family-style service, many changes have improved customer satisfaction, nutritional content and productivity.



Cadets help themselves to a minimum of two vegetables, a starch side dish and a high-carbohydrate second entree.

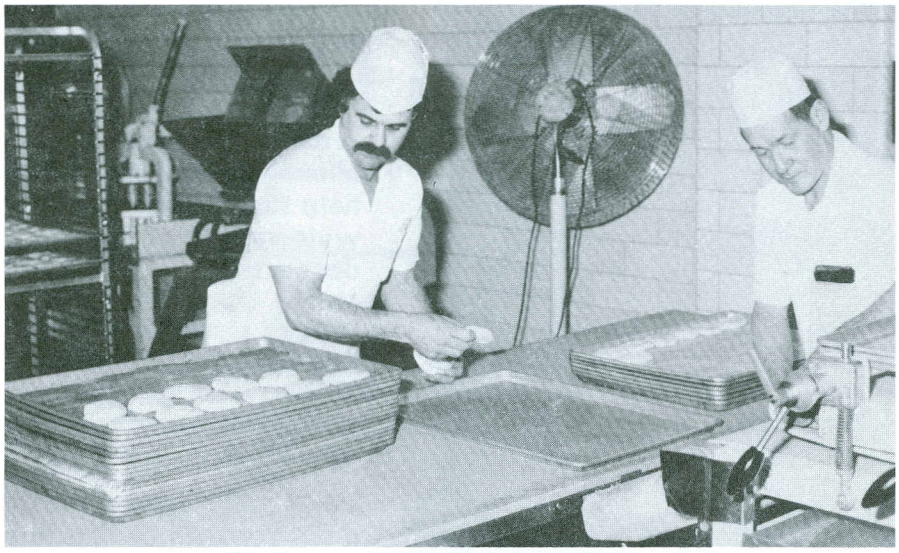
One of the most noticeable changes is optional dinners. First-year statistics were kept to help establish a projected meal attendance for the 4,400 cadets. While effective in narrowing the window by several hundred, the numerous statistical variables left the Cadet Mess with a plus or minus accuracy of 600. Because of a fixed printed menu, the Cadet Mess had no way to use leftovers. If the mess underestimated, cadets waited while additional food was prepared. If the mess overestimated, food was wasted. The answer to the problem was buffet line service. Now, in addition to the printed menu, a second entree and vegetable are always served. Cadets may help themselves to limitless quantities of the second entree, vegetables, starches, fruit and salads. This option allows cadets a greater variety and quantity. The buffet line service is more cost effective by allowing the mess to use leftovers as most Army dining facilities do. Now when the menu calls for pork chops and the headcount is 600 less than planned, for example, that item is reworked for the next evening and served as pork fried rice.

The next logical change was the dessert that was still placed on individual tables. After cadets took full advantage of the buffet line, many did not have room for dessert. Of cakes and pies on the tables, 40 to 60 percent was wasted. The answer to this problem was a dessert bar. Now all dinner desserts are baked in large sheet pans and cadets help themselves at two

A dinner dessert bar allows the cadets to help themselves to a wide variety of desserts.

At a `Grab and Go' sandwich line, Cadet Mess employees serve pre-portioned meats and cheeses for cadets to make two sandwiches each.

Other items in the `Grab and Go' sandwich line are canned drinks, chips, dessert items and fruit.



Equipment purchased through the Quick Return Investment Program (QRIP) makes the Cadet Mess more self-sufficient and economical by baking buns and rolls in-house.

High-speed meat slicers, bought with QRIP funds, slice and portion meat for sandwiches.

central locations. A minimum of two choices is always available and waste is reduced.

Although these changes were popular with cadets, many chose not to come in for the dinner meal. Through cadet feedback we learned that cadets did not want to take the time for a seated meal, especially if they had to shower and change into a duty uniform. The answer to this service problem became a "bag meal." One wing of the Cadet Mess is partitioned off and cadets come in a gym uniform to make a quick bag meal. An assortment of meats and cheeses are pre-portioned and served by Cadet Mess personnel. Cadets can make two sandwiches and collect pretzels, a canned drink, fresh fruit and a dessert item. Extremely popular, the whole process takes approximately 3.5 minutes. This service helped recapture the evening head count and is a more nutritional option for cadets who were spending their own money on junk food.

Customer satisfaction has always been important to the Cadet Mess. In the past, cadets would fill out a Table Commandant Report to inform management how they felt about the service and food. The senior person at any given table would routinely offer positive and constructive comments. The problem with this system was no immediate two-way communication to answer questions. The solution to this problem became apparent when all classes were issued computers. Now all inquiries and comments are answered via electronic mail, usually within 24 hours. That is not to say the Cadet Mess has lost personal contact with cadets. Cadet Mess staff monitor all meals and are available to answer questions and take suggestions. Cadet advisory boards and food taste panels also obtain feedback.

Nutrition

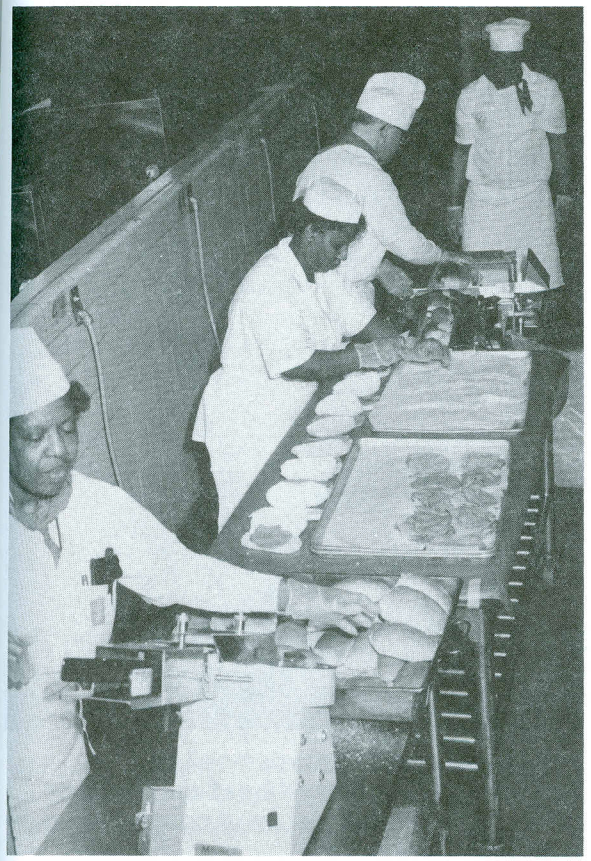
With nutrition, the Cadet Mess is at the vanguard. Meals are planned to ensure sufficient calories and nutrients to fit the variety of sizes, shapes and activity levels of cadets while reducing fats, cholesterols and sodium. The reductions came from substituting low-fat alter-

natives such as the following:

- Scrambled eggs and omelets now made with an in-house recipe of 1/2 whole eggs, 1/2 egg whites and a touch of yellow food coloring.
- Turkey used in its original form and in generic substitutes such as ground turkey, turkey ham, turkey bologna, turkey pastrami and turkey hot dogs.
- Ice cream replaced by sherberts, ice milk, frozen yogurt, pudding pops and popsicles.
- Low-fat cheeses used wherever possible.
- Cooking spray used for grilling instead of deep fat frying for many items.
- Low fat (2 percent) and skim milk offered on all tables in place of whole milk.

Nutritional awareness and education are also vital to the Cadet Mess. Nutritional information is routinely placed on tables, on local television, in newspapers and on the cadet electronic bulletin board. The goal is not only to feed cadets a healthy diet but also to teach cadets, as future officers, the impact of healthy eating on mission accomplishment. The academy supports this philosophy and allows nutrition classes during the intersession.

All of this awareness has led to a booming counseling service. The Cadet Mess dietitian maintains a full calendar counseling individual cadets, teams, staff and faculty. Cadet Mess employees are not overlooked in the overall scheme of nutrition awareness either. Free cholesterol and blood pressure screenings have been offered to all employees and followed up with counseling. This, in turn, has become a perfect lead-in for teaching employees healthier food preparation techniques



Cadet Mess employees quickly assemble box meal sandwiches with equipment bought with QRIP funds. Making sandwiches in-house resulted in a $73,000 annual savings.

Cost Reduction

Of course, there is more to operating the Cadet Mess than menu, nutrition and customer satisfaction. The bottom line is often the financial statement. Unlike all other food service operations in the Army, the Cadet Mess operates with non-appropriated funds. While appropriated dining facilities have received regular increases to the Basic Daily Food Allowance (BDFA), currently $4.90, the Cadet Mess is financially linked with the other service academies that have not received an increase in nearly 10 years. The academies' BDFA of $3.80 per cadet per day has forced the academies to become more cost effective.

Besides looking at ways to reduce waste, the Cadet Mess aggressively seeks ways to reduce costs and offset the rate of inflation. The most cost-effective measure has been converting the meat plant from carcass beef to boxed cuts of beef, which initial studies indicate will save the Cadet Mess $240,000 annually in food costs alone. It will also allow the Cadet Mess to reduce the inventory level by approximately $40,000, which will accrue interest in the subsistence account. Boxed beef is less labor intensive. While the labor force has decreased, the meat plant has picked up the additional duties of slicing meats and cheeses for 3,000 sandwiches daily and forming ground meat items.

Other cost-saving initiatives included preparing more homemade items and buying fewer ready made. In the past, the Cadet Mess purchased all

A bagger/sealer machine used for box meal sandwiches was also purchased with QRIP funds.

sandwiches used in box meals and sandwiches offered to football players as part of their nutritional supplements. Through a series of Quick Return Investment Program (QRIP) projects, the Cadet Mess obtained labor-saving equipment to make all sandwiches at a cost of 56 cents rather than $1.25 to $2.50 when purchased. This represents an annual savings of approximately $73,000 in food cost alone. As an added benefit, the equipment allows the mess to use lower-fat meats and cheeses and in-house, bakery-fresh rolls. Staffing was also reduced by one full-time employee. The new equipment is also used to make a gourmet quality, in-house cookie rather than purchasing ready made dough.

Commitments for the future include a soup and salad bar for cadets looking for a lighter dinner meal. In committees and as individuals, the Cadet Mess staff constantly looks for ways to better meet the needs of the cadets while rising to the challenge of dwindling resources.

MAJ Shirley L. McGuire is currently the Food Service Director for the United States Military Academy at West Point, New York. She holds a bachelor of arts degree in home economics from Humboldt State University, Arcata, California, and a master's degree in personnel management and administration from Pepperdine University, Malibu, California. She has served in a variety of command and staff assignments, most recently with the Training With Industry program with duty at the Marriott Corporation in Washington, D.C.

The Cadet Mess formerly purchased carcass beef and butchered it in-house. Converting to boxed beef supplied by contractors will save $240,000 annually in food costs alone.

STAFF MANAGEMENT TOOLS

CPT Ronald A. Weigelt

As Quartermaster Officers, we have a responsibility to be better staff officers than our counterparts from the other branches. We must instill confidence in our leaders about the abilities of logisticians as staff officers in any organization or position. Conceptual skills, effective decision-making, farsighted planning, daily interface with subordinates and communication skills are management tools vital to mission accomplishment for Quartermasters. The tools for better staff officers and noncommissioned officers (NCOs) are listed here. They are not new but need restating often. Using these tools will make better staff officers and NCOs.

Competence

No matter what your staff position, you must be the resident expert in your area. Educate yourself with all applicable references and continually improve this expertise. The only way to prevent being put off by "snow jobs" is technical and tactical competence.

Conceptual Skills

Develop your conceptual skills. As a staff officer you earn your pay by learning to see the "big picture." At the battalion level, for example, this means knowing the capabilities and limitations of every unit in the battalion, operating techniques, character and both peacetime and wartime missions. If this information is not readily available, then dig in and get it. You will help yourself and your commander by doing so.

Decision-Making

Be an active player in the decision-making process. Do not wait to be asked for information. Staff officers operate in an information vacuum. That vacuum is constantly being filled from above and below. If you do not keep it filled with meaningful information, it will be filled with meaningless taskings and time robbers. Constantly be on the lookout for problems. All staff officers serve a problem-solving, fact-gathering, customer assistance role. Identify the problem, gather the facts, list the alternatives and select the best to implement. Implement the decision, and follow up on your decision to make sure your objectives were accomplished. Follow-up must accompany directives.

Foresight

Plan as if you were going to be in your staff position your whole life. Be farsighted in your planning. Set goals and tackle projects which may not benefit you immediately but that will benefit the organization even after you are gone. In a sense this is demonstrating loyalty to the organization, not simply to the individuals who currently hold the reins of leadership.

Plan as if you will not be there tomorrow. When you leave, someone else should be able to step in and take your place with as little disruption as possible. Develop a good continuity book, and make sure your subordinates do the same. Have binders for key standing operating procedures (SOPs), military occupational information (MOI) and policy letters. Prepare a "battle book" that details what you know about your responsibilities in war. Ask yourself what information you would have liked to have when you arrived, then gather that information for your replacement.

Mutual Trust

Maintain some sort of daily interface with subordinate units. As a staff officer you do not want a "we-they" attitude to develop. You must establish a relationship with your subordinate units which is built upon mutual trust and respect. Do not ask your subordinate units to provide you with information you can get from other sources. They have better things to do. When subordinate units ask you for assistance, handle their requests quickly and professionally. Since there is going to be competition between subordinate units and between staff, do what you can to foster an environment that allows commanders and staff to compete against standards and not each other. Competition is worst when people compete against each other to the point of trying to make others look bad to make themselves look good.

Communication

A great staff officer keeps other people informed and keeps all channels of communication open. Communication goes up the organization, down the organization and across the organization. Keep all informed of the information flow between your office and other organizations. Always keep the boss informed of recommendations or actions coordinated directly with higher and subordinate commands.

You can be a truly outstanding staff officer and a credit to the Quartermaster Corps only if you are willing to invest your time to become one. Like good leaders, staff officers are made, not born.

CPT Ronald A. Weigelt has a master of science degree in public administration from Murray State University in Kentucky. He is a graduate of the Quartermaster Advanced Course and the Combined Arms and Services Staff School (CAS3). He is currently assigned to the 194th Maintenance Battalion in Korea.

FSB OPERATIONS ORDER AND SERVICE SUPPORT ANNEX

CPT Thea Harvell III

Clear, simple operations orders (OPORDs) are essential to any tactical operation. In the combat service support (CSS) arena, these clear, easy-to-understand orders are even more vital, since CSS usually must be synchronized over long distances with several different players operating independently. A "fill- in-the-blank" OPORD would be a great help in the planning and execution cycle of a forward support battalion (FSB).

The key to a good OPORD is a clear commander's intent and simplicity in the written product. Once the commander has stated his intent and the staff has determined all specified and implied tasks, the fill-in-the-blank OPORD helps complete the planning cycle quickly. Fill-in-the-blank OPORDs reduce production time. They allow the staff the luxury of some added time to conduct planning and put a written product in the hands of the CSS commander sooner. Subordinate commanders then have time to develop and implement their own plans. The fill-in-the-blank OPORD also ensures no vital details are left out of the plan.

This sample FSB OPORD and Service Support Annex was developed from an analysis of several after action reviews from the National Training Center. This fill-in-the-blank OPORD represents many of the critical details most commonly omitted from FSB OPORDs and Service Support Annexes. This sample should serve as a key for FSB staff officers to make certain no detail is forgotten. Each unit will probably find reasons to adjust this sample to suit local operating procedures, but use of this guide will ensure nothing is forgotten in providing support to the frontline soldier.

CPT Thea Harvell III is the Chief, Analysis Division, Office of Evaluation and Analysis, U.S. Army Quartermaster Center and School, Fort Lee, Virginia. He is a graduate of Virginia State University, Petersburg, Virginia, and the Quartermaster Officer Basic, Quartermaster Officer Advanced, Combined Arms and Services Staff School (CAS3), Petroleum Officer and Airborne Courses. Previous assignments include platoon leader in the 24th Infantry Division (Mechanized) Division Support Command, Logistics Operations Officer, Joint Task Force Bravo, Honduras, and Company Commander, 78th Quartermaster Company (Petroleum Pipeline), Pyongtaek, Korea.

CLASSIFICATION

Copy_____of_____copies

_____

_____

OPORD No: _____

Reference: _____

Time Zone Used Throughout the Plan: _____

Task Organization: _____

1. SITUATION:

a. Enemy Forces: (address rear area threat)_____

_____

b. Friendly Forces: _____

_____

c. Attachments and Detachments:_____

_____

2. MISSION: The _____ provides CSS to _____
3. Execution:
Cdr's Intent: _____
_____
a. Concept of the Operation:
(1) Movement: _____
(2) Rear Area Security/Rear Area Protection: _____
b. Concept of Support Operations: _____
c. Tasks to Subordinate Units: _____
(1) A Co, (unit) SB: _____
(2) B Co, (unit) SB: _____
(3) C Co, (unit) SB: _____
(4) AR Bn TRAINS: _____
(5) IN Bn Trains: _____
(6) FA BnTrains: _____
(7) ADA Bn Trains: _____
(8) MP Plt: _____
(9) Sig Plt: _____
(10) MI CoTrains: _____
d. Fire Support: LP/OPs are positioned with communications at _____.
Targets will be validated _____. Rehearsal of the fire support system will be conducted _____. Priority of fires for rear battle is _____.
Target # Grid #
e. Air Defense: SAFADS will be rehearsed _____.
f. Engineer Support: Priority of engineer support goes to _____.
_____.
g. Chemical: Decontamination sites are located _____.
Rehearsal for chemical attacks will take place _____.
h. Coordinating Instructions: MOPP Level _____ is effective _____.
CO Cdr's will back brief the Bn Cdr _____.
4. SERVICE SUPPORT: (Internal support requirements)
a. Materiel and Services.
(1) Classes of Supply: _____
(2) Maintenance: _____
(3) Services: _____
(4) Transportation: _____
b. Medical Services and evacuation: _____
c. Personnel: _____
5. COMMAND AND SIGNAL:
a. Command: the _____ TOC is located at _____.
Alt CP is located at _____.
Succession of command: _____
b. Signal: _____
Acknowledge:
OFFICIAL:
ANNEXES:

CLASSIFICATION

Copy_____of_____copies

_____

_____

ANNEX _____ (SERVICE SUPPORT) to OPERATIONS ORDER No: _____.

REFERENCES:

MAP SHEET SERIES: _____

1. GENERAL
   (a) _____
   (b) _____
   (c) _____
2. MATERIEL AND SERVICES
   a. SUPPLY
      (1) CLASS I
         (a) Units will deploy with a _____Day UBL.
         (b) A Co provides supply point distribution from vic. _____. A Co will operate ration breaks at designated LRPs on a _____ break cycle. The meal cycle is _____.
         (c) Resupply is based on unit troop strength reports.
         (d) Supported units use own organic transportation to pick up CLASS I. _____ will inform_____of the location and times of ration breaks.
         (e) Ice will be issued _____
         (f) CLASS I (RATION BREAK)

UNIT:_____	UNIT: _____	UNIT:_____
DATE: _____	DATE: _____	DATE: _____
LRP: _____	LRP: _____	LRP: _____
LOC: _____	LOC: _____	LOC: _____
TIME: _____	TIME: _____	TIME: _____

         g. _____.
      (2) CLASS II (CTA 50-900 (Organizational Clothing and Equipment))
         (a) All soldiers bring required CTA 50-900.
         (b) A Co provides supply point distribution from vic. _____.
         (c) Issues restricted to emergency and mission-essential requirements.
         (d) _____
      (3) CLASS III
         (a) Units deploy with UBL of bulk and package products.
         (b) A Co provides supply point distribution from vic. _____
         (c) Logistics Release Points:

UNIT:_____	UNIT: _____	UNIT:_____
DATE: _____	DATE: _____	DATE: _____
LRP: _____	LRP:_____	LRP: _____
LOC: _____	LOC: _____	LOC: _____
TYPE/QTY: _____	TYPE/QTY: _____	TYPE/QTY: _____
TYPE/QTY: _____	TYPE/QTY: _____	TYPE/QTY: _____
TYPE/QTY: _____	TYPE/QTY: _____	TYPE/QTY: _____

         (d) _____

(4) CLASS IV

(a) Units deploy with UBL.

(b) A Co provides supply point distribution from vic _____.

(c) Class IV will be pushed forward to _____.

UNIT: _____	UNIT: _____	UNIT: _____
DATE: _____	DATE: _____	DATE: _____
TIME: _____	TIME: _____	TIME: _____
LOC: _____	LOC: _____	LOC: _____
QTY: _____	QTY: _____	QTY: _____

(d) _____

(5) CLASS V

(a) Units deploy with UBL.

(b) A Co provides supply point distribution from ATP/DSA vic _____.

(c) Ammunition Transfer Points:

DATE: _____	DATE: _____	DATE: _____
TIME: _____	TIME: _____	TIME: _____
LOC: _____	LOC: _____	LOC: _____
QTY: _____	QTY: _____	QTY: _____

(d) Residue turn-in vic _____.

(e) _____

(6) CLASS VIII

(a) Units deploy with UBL.

(b) C Co provides supply point distribution from vic _____, on request CL VIII may also be pushed forward via ambulance backhaul.

(c) _____

(7) CLASS IX/RXA

(a) Units maintain authorized PLLs.

(b) B Co provides supply point distribution vic _____.

(c) All transaction for routine CL IX/RXA repair parts will be prepared according to _____.

(d) _____

b. MAINTENANCE

(1) Maintenance Support Teams (MST) conduct forward maintenance operations.

UNIT: _____	UNIT: _____	UNIT: _____
DATE: _____	DATE: _____	DATE: _____
TIME: _____	TIME: _____	TIME: _____
LOC: _____	LOC: _____	LOC: _____

(2) Priority of Maint Spt to _____

(3) Priority of Maint effort to _____

(4) _____

c. SERVICES

(1) WATER

(a) Units will top off all water trailers prior to deployment.

(b) Supply point distribution from vic _____.

(c) Water will be provided at _____.

(d) _____

(2) TRASH

(a) Unit responsibility.

(b) Trailer Transfer provided in the vic _____.

(c) _____

(d) _____

(3) LAUNDRY & BATH

(a) _____

(b) _____

(4) WASTE OIL

(a) _____

(b) _____

(5) MEDICAL SUPPORT

(a) C Co provides medical aid station in BSA vic _____.

(b) Ambulance and crew OPCON to each Task Force:

TASK FORCE	LOCATION		
(c) AXP #	GRID	BN	OCCUPIED

(d) Forward Treatment Teams (FTT):

FTT#	GRID	BN	OCCUPIED

(e) Patient Decontamination Sites (PDS) _____.

(f) MEDEVAC ambulance vic _____, frequency _____.

(g) AXP be prepared to evacuate _____ casualties.

(h) Forward treatment team be prepared to evacuate _____ casualties.

(i) MED CO will be augmented for mass casualties/PDS support:

UNIT	VEHICLES	PERSONNEL

(6) TRANSPORTATION

(a) _____

(b) _____

(7) GRAVES REGISTRATION (GRREG)

(a) A Co will operate the GRREG collection point in vic _____.

(b) _____

LEGEND

ADA - Air Defense Artillery
AR-Armor
ATP - Ammunition Transfer Point
AXP - Ambulance Exchange Point
Bn-Battalion
BSA - Brigade Support Area
Cdr - Commander
Cl -Class
Class I - Rations
Class II - General Supplies
Class III - Petroleum, Oils and Lubricants
Class IV - Construction and Barrier Materiel
Class V - Ammunition
Class VII - Major End Items
Class VIII - Medical Supplies
Class IX - Repair Parts
Co-Company
CP - Command Post
CSS - Combat Service Support
CTA - Common Table of Allowances
DSA - Division Support Area
FA - Field Artillery
FTT - Forward Treatment Team
IN-Infantry
LOC - location
LP/OP - Listening Post/Observation Post
LRP - Logistics Release Point
Maint- Maintenance
MED-Medical
MEDEVAC - Medical Evacuation
MI - Military Intelligence
MOPP - Mission-Oriented Protection Posture
MP-Military Police
No. - Number
OP - Observation Post
OPCON - Operational Control
OPORD - Operation Order
PDS - Patient Decontamination Site
PLL - Prescribed Load List
Plt - Platoon
QTY - quantity
RXA - Reparable Exchange Activity
SAFADS - Small Arms for Air Defense
SB - Support Battalion
Sig-Signal
SPT-Support
TOC - Tactical Operations Center
UBL-Unit Basic Load
vic-vicinity

SURVEY APPROVAL AUTHORITY:
U.S. ARMY PERSONNEL INTEGRATION COMMAND
SURVEY CONTROL NUMBER: ATNC-AO-91-57
RCS:MILPC-3

READERSHIP SURVEY

The goals of the *Quartermaster Professional Bulletin* are to provide current tactical and technical information about the fields of supply and logistics and to enhance the professional development of all soldiers. Input from the field is an essential ingredient to a professional bulletin. The *Quartermaster Professional Bulletin* wants to know what you, our readers, think. This Readers' Survey will allow us to gather important information from the field to help us to better serve your needs. Your responses will be completely confidential; only aggregate statistics will be compiled, evaluated and disclosed. Please take a few minutes to complete and return the survey questionnaire to us. The survey may be mailed by your unit mail room or by affixing the appropriate postage due on the outside of the form.

DIRECTIONS: Circle the letter to indicate your response for each question. Unless otherwise directed, circle only one response for each question or sub-item of a question.

1. Have you read an issue of the *Quartermaster Professional Bulletin (QMPB)* in the past year?

   A. No [GO TO QUESTION 21]
   B. Yes [CONTINUE WITH QUESTION 2]

2. How many issues of the *QMPB* have you read in the past 12 months?

   A. 1
   B. 2
   C. 3
   D. 4

3. How soon after the *QMPB* is received at your unit/residence do you usually read it?

   A. Same month it is published
   B. About one month after it is published
   C. About two months after it is published
   D. About three or more months after it is published
   E. Varies greatly from issue to issue

4. How much of each issue of the *QMPB* do you usually read?

   A. Almost none of it
   B. A little of it
   C. Some
   D. Quite a bit
   E. Almost all

5. How do you usually obtain an issue of the *QMPB*?

   A. Mailed directly to me
   B. Unit/office distribution
   C. Unit dayroom
   D. Army library
   E. Learning/education center
   F. Other source (Specify)

6. After reading the *QMPB*, what do you usually do with it?

   A. Route it through distribution
   B. Pass it on to someone else
   C. Tear out parts of it for reference
   D. Keep it all for reference
   E. Leave it in dayroom/library
   F. Throw it away
   G. Other (Specify)

7. Do you feel the *QMPB* is delivered to you in a timely manner?

   A. Yes
   B. No

8. How helpful is the *QMPB* in terms of keeping you informed about your own professional field in the Army?

   A. Extremely helpful
   B. Very helpful
   C. Somewhat helpful
   D. A little helpful
   E. Not helpful at all

9. Do the following topics/areas of interest need more, about the same or less coverage in future issues? (Circle appropriate choice.)

   A. More coverage
   B. About the same
   C. Less coverage

9.1	Petroleum Supply	A	B	C
9.2	Supply Automation	A	B	C
9.3	Mortuary Affairs	A	B	C
9.4	Aerial Delivery	A	B	C
9.5	Subsistence	A	B	C
9.6	General Supply	A	B	C
9.7	Historical Articles	A	B	C
9.8	Support Battalion Operations	A	B	C
9.9	Wholesale Operations	A	B	C

10. How helpful are each of the following regular sections of the *QMPB* in keeping you informed about developments in the Quartermaster field? (Using the scale below, select one response for each section listed.)

    A. Do not read this section
    B. Extremely helpful
    C. Very helpful
    D. Somewhat helpful
    E. A little helpful
    F. Not helpful at all

10.1 Feature articles	A	B	C	D	E	F
10.2 Short news briefs	A	B	C	D	E	F
10.3 General subject articles	A	B	C	D	E	F
10.4 Commander's Message	A	B	C	D	E	F
10.5 Safety articles	A	B	C	D	E	F

11. Do the following sections of the *QMPB* need more, about the same or less coverage? (Using the scale below, select one response for each section listed.)

A. Do not read this section
B. More coverage
C. About the same
D. Less coverage

11.1 Feature articles	A	B	C	D
11.2 Short news briefs	A	B	C	D
11.3 General subject articles	A	B	C	D
11.4 Commander's Message	A	B	C	D
11.5 Safety articles	A	B	C	D

12. How often during the past year have you used the *QMPB* as a source document in preparing Army policy papers, briefings, reports, training, etc.?

A. Does not apply; I do not prepare such materials.
B. Very frequently
C. Frequently
D. Sometimes
E. Seldom
F. Rarely or never

13. How often during the past year have you used suggestions from the *QMPB* to help solve (or understand) problems at your Army job?

A. Very frequently
B. Frequently
C. Sometimes
D. Seldom
E. Rarely or never

14. Listed below are the titles of some recent articles that have appeared in the *QMPB*. How much of each of the articles did you read? Give your best estimate. (Using the scale below, check one response for each article listed.)

A. Do not remember seeing it
B. Remember seeing it, but did not read it
C. Read some of it
D. Read most of it
E. Read all of it

14.1 *Panama Journal*	A	B	C	D	E
14.2 *Leadership Counseling*	A	B	C	D	E
14.3 *Airdrop Equipment Developments*	A	B	C	D	E
14.4 *Arctic Petroleum Operations: The Cold Facts*	A	B	C	D	E
14.5 *Desert Shield Contingency Contracting*	A	B	C	D	E
14.6 *City Point: The Tool That Gave Grant Victory*	A	B	C	D	E

15. To what extent do you agree with the following descriptions of the content of the *QMPB*? (Using the scale below, circle one response for each statement.)

A. Strongly agree
B. Agree
C. Neither agree nor disagree
D. Disagree
E. Strongly disagree

15.1 Easy to read	A	B	C	D	E
15.2 Easy to understand	A	B	C	D	E
15.3 Interesting	A	B	C	D	E
15.4 Provides useful information	A	B	C	D	E
15.5 Uses experts who tell what is happening	A	B	C	D	E
15.6 Explains how and why things are being done	A	B	C	D	E
15.7 Timely and up to date	A	B	C	D	E
15.8 Fair and accurate	A	B	C	D	E
15.9 Stimulating, makes you think	A	B	C	D	E
15.10 Source of new ideas	A	B	C	D	E
15.11 Well written	A	B	C	D	E

16. How do you rate the following aspects of the appearance of the *QMPB*? (Using the scale below, circle one response for each aspect.)

A. Excellent
B. Very Good
C. Good
D. Fair
E. Poor

16.1 Cover design	A	B	C	D	E
16.2 Layout/presentation of articles and features	A	B	C	D	E
16.3 Readability of the print/type used	A	B	C	D	E
16.4 Charts and graphs	A	B	C	D	E
16.5 Photography	A	B	C	D	E
16.6 Other artwork and illustrations	A	B	C	D	E

17. The *Professional Readings* list contained in each issue of the *QMPB* is useful to my professional development.

A. Strongly agree
B. Agree
C. Neither agree nor disagree
D. Disagree
E. Strongly disagree

18. How many recommended items from the *Professional Readings* list have you read in the last six months?

A. 1
B. 2
C. 3
D. 4
E. 5 or more

19. The *QMPB* is currently published quarterly. How often would you like to see the *QMPB* published?

A. Quarterly
B. Bimonthly
C Monthly
D. Semiannually

20. Overall, how would you rate the content and appearance of the *QMPB*?

A. Excellent
B. Very good
C. Good
D. Fair
E. Poor

21. What is your current military status?

A. Active duty
B. Reserve (on active duty)
C. Reserve
D. National Guard
E. Retired
F. Civilian employee
G. Other (Specify)_____

22. What is your rank/pay grade?

22.1 Officer

A. WO1-CW4/MW4
B. 2LT-CPT
C. MAJ-COL
D. General

22.2 Enlisted

A. PV1-CPL/SPC
B. SGT-SSG
C. SFC-CSM

22.3 Civilian

A. GS8 or lower
B. GS9-GS12
C. GS/GM13-GS/GM15
D. Other (Specify)_____

23. If you receive a personal copy of the *QMPB* by direct mail (MSG and above), would you still subscribe to the *QMPB* if it were no longer free?

A. Yes
B. No
C. Not sure

24. What is your current duty position?

A. Section member
B. Squad leader
C. Platoon sergeant
D. First sergeant
E. Platoon leader
F. Company-level commander
G. Battalion staff
H. Other (Specify) _____

25. Where are you currently stationed:

A. CONUS (not including Alaska, Hawaii)
B. Alaska or Hawaii
C. Europe
D. Pacific and Far East
E. Central America
F. Other (Specify)_____

26. What is your sex?

A. Female
B. Male

27. How old are you?

A. Under 20
B. 20-24
C. 25-29
D. 30-39
E. 40-49
F. 50 or over

28. What is the highest level of education you have completed?

A. Less than high school
B. High school or GED
C. Some college, no degree
D. Associate degree or vocational license
E. Bachelor's degree
F. Graduate and/or professional degree

29. Please provide any additional comments you may have about the *QMPB*.

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Fold on dotted lines and mail through your unit mail room.

ISSN: 0896-9795
Quartermaster Professional Bulletin
U.S. Army Quartermaster Center &
School
ATTN: ATSM-QMG-B
Fort Lee, VA 23801-5032

EDITOR
Quartermaster Professional Bulletin
U.S. Army Quartermaster Center &
School
ATTN: ATSM-QMG-B
Fort Lee, VA 23801-5032

QUARTERMASTER UNIT SAFETY

CPT Joseph M. O'Reilly III

One mission of the Quartermaster Branch Safety Division, U.S. Army Quartermaster Center and School, Fort Lee, VA, is to support all Quartermaster unit safety efforts. The Quartermaster Branch Safety Division considers and resolves Quartermaster-related safety issues and also provides information and assistance. The division supports equipment, training and mission tasks performed by all Quartermaster military occupational specialties (MOSs). A 24-hour Quartermaster Hotline (details on page 2) is available for safety requests and information. The Quartermaster Branch Safety Division, staffed during normal office hours, assists all commanders and soldiers with safety-related issues.

Favorable Downturn

The Quartermaster Corps, like the rest of the U.S. Army, is experiencing a favorable downturn in the number of reported accidents involving our soldiers. Figure 1 (Quartermaster Ground Accidents) shows reported accidents from FY 1985 through May 1991. Figure 2 (Quartermaster Branch, Top Five Accident Categories for FY 1990) indicates what activity soldiers are performing during an accident. However, accidents involving soldiers may have been underreported during *Desert Shield/Storm* in Southwest Asia. Some safety experts believe that 75 to 90 percent of the accidents during the Iraqi conflict were not reported. A major concern is that FY 1991 accident statistics may not accurately reflect

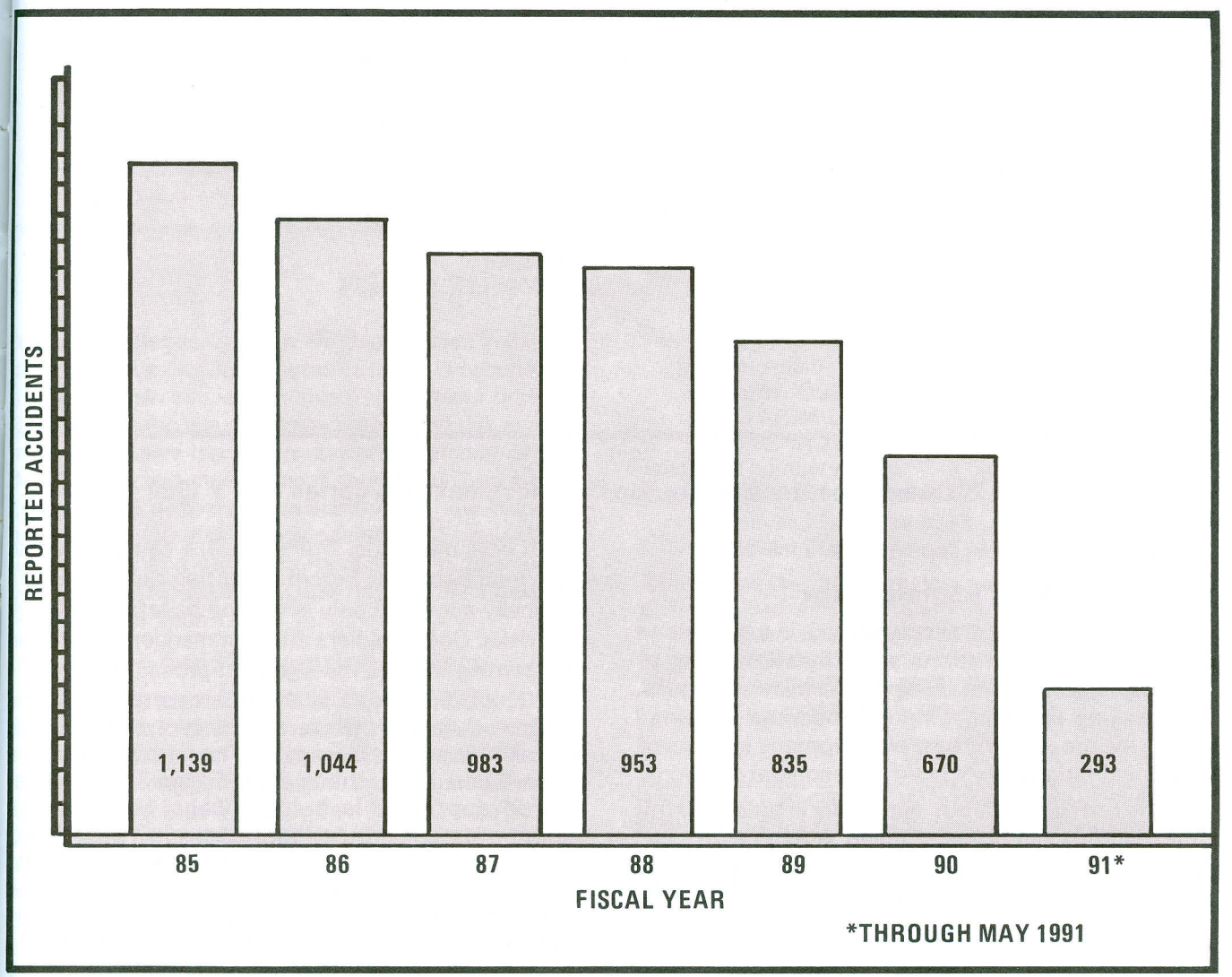


Figure 1. Quartermaster Ground Accidents

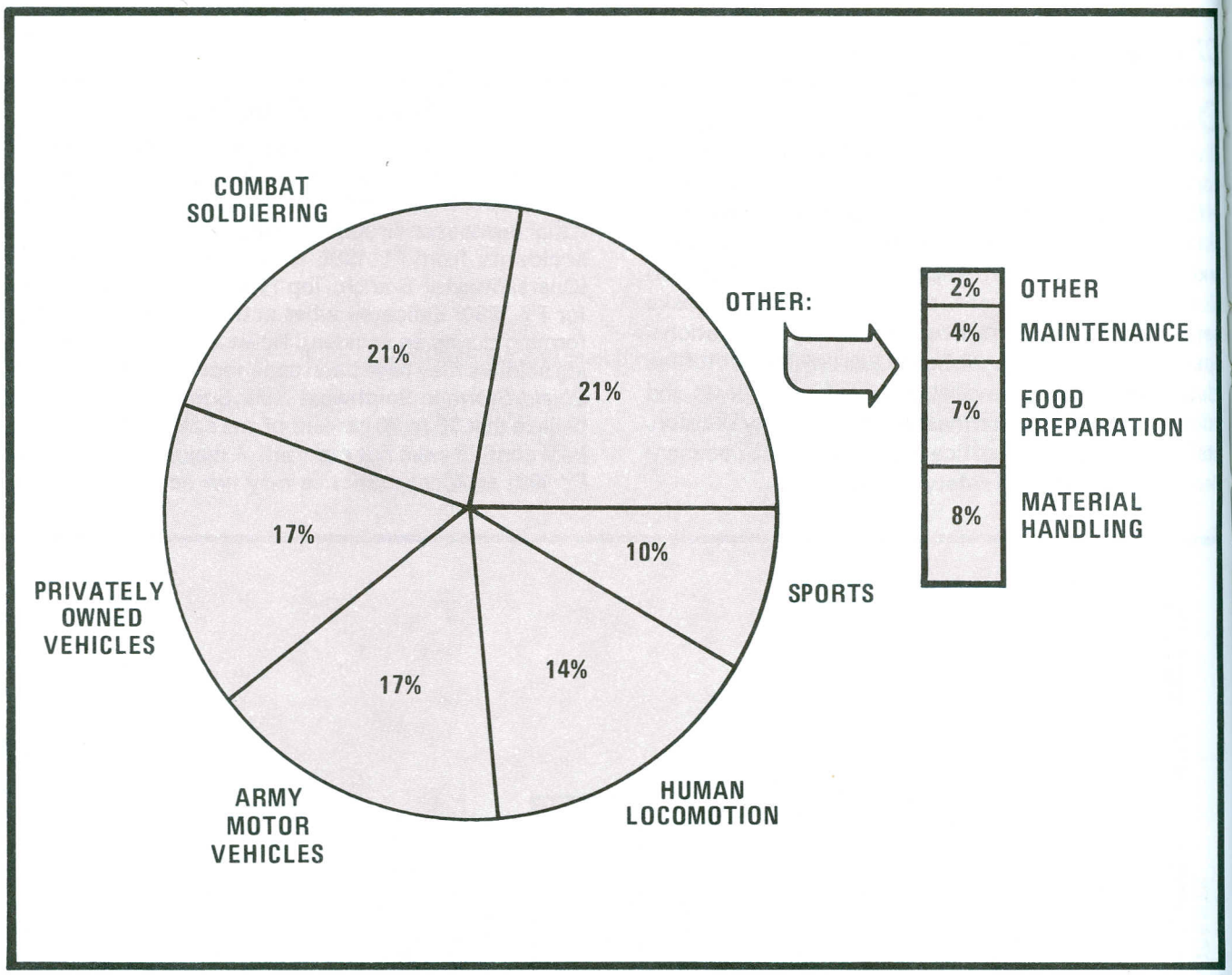


Figure 2. Quartermaster Branch, Top Five Accident Categories for FY 1990

the results of efforts to improve safety training.

Risk Management

Risk management, simply stated, is a process to make high-risk operations safer by eliminating or reducing risks while retaining overall mission benefit. If assessing and managing risk become a trained reflex, the process will become automatic in times of stress and fatigue associated with combat missions.

Life can be dangerous, especially in today's Army. Soldiering requires everyone to engage in "risky" activities. Although it is usually impossible to completely eliminate all risks and still accomplish the mission, Quartermasters can minimize risks associated with tasks by using practical, common sense approaches. With risks identified, soldiers can consider alternate actions to reduce risks and still accomplish unit missions. Commanders can then make informed decisions before accepting risks. Risks are normally accepted only when the benefits outweigh the risks. Good soldiers and commanders have been performing this risk management process for ages.

The U.S. Army and the Quartermaster School safety education efforts are concentrating on risk management and assessment. The primary focus is a three-tiered approach to safety (Figure 3). This three-tiered approach is being integrated into the Quartermaster education system in two stages. Stage 1 is now occurring at U.S. Army Training and Doctrine Command (TRADOC) schools, with risk management written into lesson plans for enlisted soldiers in training that ranges from basic combat to the US Army Sergeants Major Academy. Officers are receiving risk management training in U.S. Army schools that range from precommissioning courses

Figure 3. Three-Tiered Approach to Safety

to senior colleges. Civilians are also included in the risk management education program. Stage 2 is occurring in the field, when soldiers receive training from first-line supervisors who use risk management and risk assessment techniques learned in noncommissioned officer (NCO) leadership development courses. Officers must demonstrate proficiency in supervision and management of accident risks in unit operations. Standards for lieutenants and captains have been published in STP 21-II-MQS (Military Qualification Standards II Manual of Common Tasks).

Accident Prevention Update

The Quartermaster Branch Safety Division mailed the first update to the *Commander's Guide to Accident Prevention* (*CGAP*) on 5 August 1991. The *CGAP* assists commanders with accurate and timely information on Quartermaster safety issues. Sent to all Quartermaster active duty and reserve battalions, the *CGAP* contains accident statistics, accident studies, safety checklists and information vital to a successful command safety program. Statistical updates will be published every July, and complete updates will be published annually beginning in January 1992. Any Quartermaster or other combat service support battalions that need a *CGAP* should contact the Quartermaster Branch Safety Division.

The mailing address:
Commandant
U.S. Army Quartermaster Center and School
ATTN: ATSM-QMG-S
Fort Lee, VA 23801

Telephone numbers:
Quartermaster Branch Safety Division
Commercial: (804)734-5347
DSN: 687-5347/2627

Quartermaster 24-Hour Hotline
Office of Evaluation and Analysis
Commercial: (804)734-3767
DSN: 687-3767
Toll-Free: 1-800-284-4935, EXT 3767
Toll-Free in Virginia: 1-800-552-4820

CPT Joseph M. O'Reilly III is Chief, Branch Safety Division, Office of the U.S. Army Quartermaster General, U.S. Army Quartermaster Center and School, Fort Lee, Virginia. He has a bachelor's degree in industrial safety from the University System of New Hampshire. Previous duties included assignments as Battery and Battalion Collateral Duty Safety Officer for 4th Battalion, 9th Field Artillery Regiment, 56th Field Artillery Command (Pershing), Neckarsulm, Germany, from 1987-1990.

PROFESSIONAL READINGS

The Professional Readings section of the *Quartermaster Professional Bulletin* is designed to encourage the professional development of all Quartermasters. Titles are selected from the Quartermaster School Professional Reading List, the current Department of the Army Contemporary Military Reading List, as well as other notable sources. Short reviews from the field are welcome.

A Genius For War: The German Army and General Staff (1807-1945)

Trevor N. Dupuy, Hero Books, Fairfax, Virginia, 1984

Colonel Dupuy presents a brilliant analysis of the traditional German military structure and organization. Beginning with the Prussian military organization of the 18th century (Frederick the Great), Dupuy examines the unique and creative General staffs of German armies past. Dupuy's exploration outlines the contributions of Scharnhorst, Gneisenau, Clausewitz and others to the development and implementation of one of the world's great military organizations. This is an excellent source of information to complement any study of the rise and fall of Germany.

Soldiers and Scholars: The U.S. Army and the Uses of Military History (1865-1920)

Carol Reardon, University Press of Kansas, Lawrence, Kansas, 1990

The use and abuse of military history is the central theme of the latest edition in the University Press of Kansas Modern War Studies series. Reardon chronicles the rise and fall of military history programs used to instill a spirit of professionalism in the Army's officer corps. Reardon's analysis stems from a 1971 Department of the Army report that lamented the Army's apparent abandonment of its traditional reliance on military history. She examines some of the age-old questions raised by soldiers concerning the relevance of military history to the profession of arms. In Reardon's final analysis, today's officer corps appears to be gradually returning, albeit belatedly, to the "Old Army's" recognition of military history as a vital ingredient in its continued professionalism.

Panzer Commander: The Memoirs of Colonel Hans Von Luck

Dell Publishing, New York, 1989

Colonel Von Luck commanded Rommel's 7th and 21st Panzer Divisions in such historical locales as El Alamein, Kasserine Pass, Poland, Normandy and the disastrous Russian Front. Von Luck tells his personal story with vivid detail offering a perspective of classic Panzer battles that is new and refreshing. Von Luck, a professional German soldier, maintains the spirit of an officer and a gentleman. An impassioned eyewitness, Von Luck narrates his own story as a superb soldier fighting Hitler's war.

FY 91 QUARTERMASTER WARRANT OFFICER PROMOTION RESULTS

Outlined below is the statistical summary for the recently released FY 91 promotion lists for CW3/4. The summary is broken down into three categories: above the zone (AZ); first time considered, better know as primary zone (PZ); and below the zone (BZ). This summary reflects how well each military occupational specialty (MOS) did, and also reflects the Armywide rates.

(CON = Considered, SEL = Selected, ELIG = Eligible)

FY 91, CW3 ARMY PROMOTION RESULTS
MOS STATISTICAL SUMMARY

	ABOVE THE ZONE			FIRST TIME CONSIDERED			BELOW THE ZONE		
MOS	AZ ELIG	AZ SEL	% SEL	PZ ELIG	PZ SEL	% SEL	BZ ELIG	BZ SEL	% SEL
920A	24	5	20.8	36	24	66.6	40	1	2.5
920B	24	3	12.5	16	8	50.0	29	1	3.4
921A	1	0	0	5	4	80.0	2	0	0
922A	5	1	20.0	2	1	50.0	11	0	0
Total:	**54**	**9**	**16.6**	**59**	**37**	**62.7**	**82**	**2**	**2.4**

Armywide selection rates were: CW3	CON/SEL (AZ/PZ)	CON/SEL (BZ)
	1,431/770	790/42
	53.8%	5.3%

FY 91, CW4 ARMY PROMOTION RESULTS
MOS STATISTICAL SUMMARY

	ABOVE THE ZONE			FIRST TIME CONSIDERED			BELOW THE ZONE		
MOS	AZ ELIG	AZ SEL	% SEL	PZ ELIG	PZ SEL	% SEL	BZ ELIG	BZ SEL	% SEL
920A	4	0	0	20	11	55.0	11	0	0
920B	8	1	12.5	15	9	60.0	3	0	0
921A	0	0	0	1	1	100.0	1	0	0
922A	3	1	33.3	13	10	76.9	1	0	0
Total:	**15**	**2**	**13.3**	**49**	**31**	**63.2**	**16**	**0**	**0**

Armywide selection rates were: CW4	CON/SEL (AZ/PZ)	CON/SEL (BZ)
	515/265	268/14
	51.4%	5.2%

ARTEP/MTP DEVELOPMENT

The Army Training and Evaluation Program (ARTEP) Mission Training Plan (MTP) is the basic document for training a unit's mission. The ARTEP/MTP provides a clear description of "what" and "how" to train for critical wartime mission proficiency. It guides the unit in preparing, conducting and evaluating training.

The U.S. Army Quartermaster Center and School at Fort Lee, VA, has developed and fielded the following MTPs:

TITLES	FIELDING DATES
ARTEP 42-004-30-MTP, SUP CO, FWD SPT BN, ARM and MECH DIV	FEB 89
42004L100 - SUP CO, FWD SPT BN, HVY DIV	
42004L200 - SUP CO, FWD SPT BN, HVY/LT DIV	
42004L300 - SUP CO, FWD SPT BN, ID, NG	
ARTEP 42-007-30 - MTP, S&S CO, MSB, HVY DIV	FEB 89
42007L100 - S&S CO, MSB, HVY DIV	
42007L200 - S&S CO, MSB, HVY/LT DIV	
42007L300 - S&S CO, MSB, ID, NG	
ARTEP 42-026-MTP, HQ SUP CO, S&T BN, LID, AASLT DIV	MAR 90
42026L000 - HQ & SUP CO, S&T BN, LID	
42056L000 - HQ & SUP CO, S&T BN, ABN DIV	
42066L000 - HQ & SUP CO, S&T BN, AASLT DIV	
ARTEP 42-026-30-MTP, SUP CO, S&T BN, LID, AASLT DIV	AUG 90
42026L000 - HQ & SUP CO, S&T BN,LID	
42056L000 - HQ & SUP CO, S&T BN, ABN DIV	
42055L000 - HQ & SUP CO, S&T BN, AASLT	
ARTEP 42-027-30-MTP, FWD SUP CO, S&T BN, LID AASLT DIV	DEC 90
42027L000 - FWD SUP CO, S&T BN, LID	
42057L000 - FWD SUP CO, S&T BN, ABN DIV	
42067L000 - FWD SUP CO, S&T BN, AASLT DIV	
ARTEP 10-337-30-MTP, QM AID EQUIP SPT CO, S&T BN, ABN DIV	DEC 90
ARTEP 42-077-30-MTP, S&T CO, SPT BN, HVY SEP BDE or SEP INF BDE or THEATER DEF BDE and S&T TRP, SPT SQDN, ACR	MAY 91
42077L000 - S&T TRP, SPT SQDN, ACR	
42084L000 - S&T CO, SPT BN, SEP HVY BDE	
42877L100 - S&T CO, SPT BN, SEP INF BDE	
42877L200 - S&T CO, SPT BN, THEATER DEF BDE	

The following ARTEP MTPs were completed in June 1991 with a proposed fielding date of September 1991:

ARTEP 10-466-MTP, HQ QM BN (WTR SUP)

ARTEP 10-466-30-MTP, HQ DET, QM BN (WTR SUP)

ARTEP 10-468-30-MTP, QM CO (WTR SUP) DS/GS TAC WTR DIST TM (HL) and WTR PUR TM (B-M ROWPU)

10468L000 - WTR SUP CO

10570LA00 - QM WTR TM BGE MTD (ROWPU)

10570LG00 - QM TAC WTR DIST (HL)

ARTEP 10-469-30-MTP, QM WTR PUR DET (GS) and QM WTR PUR TM (12,000 GPH)

10469L000 - WTR PUR DET

1057LC00 - QM WTR PUR TM (12,000 GPH)

AUTOMATED PROGRAM OF INSTRUCTION

The Directorate of Training and Doctrine, U.S. Army Quartermaster Center and School at Fort Lee, VA, received the latest prototype of the automated Program of Instruction Management Module (POIMM). The U.S. Army Training and Doctrine Command (TRADOC) is developing the computer program to automate all POIs within TRADOC. This will be the foundation for further Army automation. The POIMM Program will speed development and approval of POIs and reduce paper use. The projected start date for automated POIs is 1 Oct 91. Point of contact for information is CPT Olson at DSN 687-2837.

QUARTERMASTER RESERVE COMPONENT OFFICER ADVANCED COURSE

The FY 92 dates for the two-week resident phases of the Quartermaster Reserve Component Officer Advanced Course at Fort Lee, VA, are as follows:

Phase I, Company Command Module (CCM)

Class Number	ReportinqDate	End Date
92-1	19 Oct91	1 Nov 91
92-2	22 Feb 92	6 Mar 92
92-3	11 Apr 92	24 Apr 92
92-4	22 Aug 92	4 Sep 92

Phase III, taught by U.S. Army Reserve Forces (USARF) Schools at Fort Lee, VA

USARF School	Reporting Date	End Date
1157th	31 May 92	12 Jun 92
2059th	9 Aug 92	21 Aug 92

For further information, call MAJ Mark Joosse or Jerry Clemons, Commercial: (804)734-5167/5452 or DSN 687-5167/5452.

RCOAC CORRESPONDENCE COURSE PHASES IIa and IIb

The U.S. Army Reserve Forces Schools stopped teaching Phase IIa of the Reserve Component Officer Advanced Course (RCOAC) on 1 Oct 91. If you need to complete either one or both of Phase IIa or IIb, you must use correspondence courses. Submit a request for enrollment (DA Form 145) to the Army Institute for Professional Development, U.S. Army Training Support Center, Newport News, VA 23628. For enrollment in Phase IIb, be sure to specify only **one** of three Quartermaster tracks: materiel management, petroleum management or subsistence management.

MQS MANUALS UPDATE

The U.S. Army Quartermaster Center and School at Fort Lee, VA, completed development of the following two Military Qualification Standards (MQS) Company Grade Officers' Manuals:

STP 10-92ABD-MQS II, Quartermaster Corps, Quartermaster General (92A), Supply and Material Management (92B), and Aerial Delivery and Materiel (92D)

STP 10-92FG-MQS II, Quartermaster Corps, Petroleum (92F) and Subsistence (92G).

The publication date for the manuals is 18 Sep 91.

FIRST QUARTERMASTER SELF-DEVELOPMENT TEST (SDT)

The 43M (Fabric Repair Specialist) self-development test (SDT) will be the first Quartermaster test administered under the new SDT system for soldiers in field services, January through March 1992 for the Active Component and January through December 1992 for the Reserve Component. Skill levels 2, 3 and 4 each have a test covering both common and technical information. The primary basis for the testing will be the soldier's manual currently in the field.

The SDT tests for 57E (Laundry and Bath Specialist) will be February through April 1992 for the Active Component and February 1992 through January 1993 for the Reserve Component. Dates for the 43E (Parachute Rigger) testing will be April through June 1992 and March 1992 through February 1993. For more information, contact SSG Chadwick (43M), SFC Bryant (57E), or SFC Amil (43E) at DSN 687- 2667/3428.

AIRDROP FIELD MANUALS

The Publications Branch of the Airborne and Field Services Department, U.S. Army Quartermaster Center and School, Fort Lee, VA, will change or revise the following airdrop field manuals during FY 92:

FM 10-527	Rigging 155-mm Howitzers
FM 10-512	Rigging Typical Supply Loads
FM 10-557	Rigging M-12 Decontamination Unit
FM 10-558	Rigging Reverse Osmosis Water Purification Unit (ROWPU)
FM 10-526	Rigging 5-Ton Trucks
FM 10-517	Rigging HMMWV (High Mobility Multipurpose Wheeled Vehicle)
FM 10-500-7	Airdrop Recovery Procedures

For further information, contact Roger Hale at DSN 687-2667/3428.

PILOT TRAINING PROGRAM IN ACES

The Army Center of Excellence, Subsistence (ACES) transferred portions of resident training to either unit or individual level. The Army Training support Center, Fort Eustis, VA, selected ACES to try a multimedia approach to this distributive training concept with the 94B (Food Service Specialist) Advanced Noncommissioned Officer Course (ANCOC). In this pilot program, a 94B ANCOC student will attend a course that has been shortened by one week. That initial week of instruction is packaged into a correspondence course and will be sent to the student.

The student must successfully complete the correspondence course before starting ANCOC. This correspondence course is very different because it includes three types of media: written, video and computer-based instruction (CBI). Even the video portion of the instruction is unique; it is not merely passive video. Training will be presented as creatively as possible, and then there is a "What's wrong with this picture?" portion where the student identifies errors in performance presented on the screen. The CBI portion will include many practical exercises on a computer disk. If the student makes errors, the program includes some remedial training and another exercise to determine proficiency. The bottom line is to make the independent learning more enjoyable, to ensure that Quartermasters continue to learn to Army wartime standards, and to save the Army money by having a shorter resident phase to this course. This project will take a year to develop. If you plan to take the 94B ANCOC course a year from now, be prepared for a unique experience—you will be on the cutting edge of Army training technology.

OFFICER BASIC COURSE SUBSISTENCE TRAINING

The subsistence supply instruction that Quartermaster lieutenants receive in their Officer Basic Course is being revised. The current 20 hours of instruction on Troop Issue Subsistence Activities (TISA) is being reduced to a four-hour overview. The 16 hours taken from TISA instruction will emphasize the Army Field Feeding System and Class I (rations) Supply Point field operations. The decreasing number of authorizations for lieutenants in TISAs worldwide led to this course adjustment. Field commanders with responsibility for TISAs are advised to use only 92G (Subsistence) qualified captains and lieutenants as accountable officers in TISAs where authorized.

U.S. ARMY CULINARY COMPETITION

The preparation for the 16th Annual U.S. Army Culinary Competition is well under way at the Army Center of Excellence, Subsistence, Fort Lee, VA. The judging, public display and awards ceremony will be 11-12 March 1992. The arrival date for the competitors will be 29 February 1992. For more information on the entry procedures and competition rules, contact Chief, Culinary Skills Training Division, at DSN 687-2716/5487.

CHANGE OF COMMAND FOOD SERVICE SUPPORT

AR 30-1 (The Army Food Service Program) provides definitive guidance on the type of activities that can be supported from an appropriated fund dining facility. The regulation also specifically prohibits using the dining facility, personnel or rations to support promotions, retirements, coffee calls and change of command functions. Support of change of command functions, however, was changed by Headquarters, Department of the Army message 0321325Z August 1990, subject: Change to AR 30-1 (The Army Food Service Program). At the end of paragraph 10-16 the following was added: "Change of command functions may be held in dining facilities. Dining facility personnel, using government dining facility equipment, may prepare subsistence which has been purchased by commanders for their change of command. Government furnished subsistence may not be used for change of command functions."

The message also stated that food advisors and commanders must ensure no loss of service to subsistence-in-kind soldiers. The message further recommended that commanders consider reimbursing military personnel who use their personal vehicles to purchase and transport the supplies for the function.

P&WANCOC REQUIRES MATHEMATICS

Soldiers who attend the Petroleum and Water Advanced Noncommissioned Officer Course (P&WANCOC) need a solid background in mathematics. Students must be familiar with basic formulas in multiplication, division and fractions and also must be able to use these formulas in algebraic equations. Students must know how to use a calculator. For a basic mathematics refresher workbook, contact Arthur LeMire, P&WANCOC course director, at DSN 687-3427/2407 or Commercial (804) 734-3427/2407 or write to Commander, U.S. Army Quartermaster Center and School, ATTN: ATSM-PWD-A (P&WANCOC), Fort Lee, VA 23801-5042.

MORTUARY AFFAIRS INTERIM OPERATIONAL CONCEPT

A Mortuary Affairs Interim Operational Concept (MA-IOC) will provide a doctrinal force structure for theater mortuary affairs operations. The MA-IOC establishes a collection company in the corps area and a mortuary affairs company in the theater army area.

Key points follow:

- Provides division mortuary force structure.
- Provides collection and evacuation capabilities for the corps.
- Provides the corps commander with the capability to task organize valuable mortuary affairs assets on the battlefield.
- Eliminates graves registration (GRREG) battalion command and control overhead.
- Provides structure for an in-theater mortuary during the return programs.
- Provides temporary burial capabilities when necessary.
- Establishes personal effects (PE) depot mission with the mortuary affairs company.
- Provides collection and evacuation for the theater army area.
- Allows the theater commander total flexibility to execute the mortuary affairs programs during low- to high-intensity conflicts.

This concept was tested, in part, in Southwest Asia during *Operation Desert Storm*. One mortuary affairs company supported each corps and peformed the collection and evacuation mission for the corps and divisions. The MA-IOC is presently at the Combined Arms Support Command (CASCOM) for approval. For further information, contact CPT Bird, DSN 687-4326.

PETROLEUM MQS MANUAL

The 92F (Petroleum) Military Qualification Standards (MQS) Manual 2 has been forwarded to the U.S. Army Training and Doctrine Command (TRADOC) for publication. The tentative fielding date for the manual is September 91.

AIRMOBILE AND MOBILE POL LABORATORIES

The Petroleum and Water Department is now training soldiers on the Airmobile and Mobile POL (petroleum, oils and lubricants) Laboratories. 77L (Petroleum Laboratory Specialist) advanced individual training (AIT) soldiers receive 18 hours of hands-on training in each laboratory during a field exercise. When 77L Basic Noncommissioned Officer Course (BNCOC) classes are in session at the same time as AIT classes, the BNCOC soldiers are in a supervisory role in the laboratories as they would be in the field.

The Airmobile Petroleum Laboratory is a self-contained unit which needs only a 15-kilowatt generator or its equivalent for an external power source, a water supply and wastewater disposal capabilities when in operation. The laboratory, housed in a S-280C/G military shelter, can perform type B-1, B-3 and C tests on aviation and ground fuels. It is air deployed by C-130 or larger aircraft and by CH-47 helicopter either by internal or sling loading. The three laboratory personnel are in military occupational specialty (MOS) 77L, E3 through E5. This facility is designed and staffed for testing support for airborne, airmobile and heavy divisions as well as quality surveillance (QS) single product pipeline systems and ocean terminals in the combat theater.

The Mobile Petroleum Laboratory is the corps and communications zone (COMMZ) QS clearinghouse in a theater of operations. This facility is a self-contained unit housed in a M-822 semitrailer van. The laboratory requires a 60-kilowatt generator or its equivalent for power, a water supply and waste water disposal capabilities. The laboratory is deployable by sea or air. Staff consists of laboratory technicians, MOS 77L, E3 through E6; a report clerk, MOS 71 L (Administrative Specialist), E3; and one officer, speciality code 92F. Laboratory personnel can perform complete type B-1, B-2 and B-3 tests on fuels and modified type B-2 tests on packaged lubricants, greases and related fluids. This facility is designed to support petroleum terminal and operating battalions, petroleum supply battalions, multi-product pipeline systems and ocean terminals.

AIRBORNE PERSONNEL SHORTAGE

The Quartermaster/Chemical Branch at the U.S. Total Army Personnel Command (PERSCOM) is seeking airborne volunteers to fill critical shortages in the following primary military occupational specialties (MOSs): 76C20 (Equipment Records and Parts Specialist, Skill Level 20), 76V10 (Materiel Storage and Handling Specialist Skill Level 10), 76Y30/40 (Unit Supply Sergeants, Skill Levels 30 and 40) and 77W10/20 (Water Treatment Specialist, Skill Levels 10 and 20). If you are interested in being an Army parachutist, see your Personnel and Administration Center (PAC) or Personnel Staff Noncommissioned Officer (PSNCO). For policies and eligibility criteria, see AR 614-200, Change 15 (Selection of Enlisted Soldiers for Training and Assignment), Chapter 6. Forward applications to PERSCOM, ATTN: TAPC-EPM-L, 2461 Eisenhower Avenue, Alexandria, VA 22331-0454. The point of contact at PERSCOM is Mrs. Holmes, DSN 221-9764.

HEAT SEALING MACHINE FOR CLOTHING REPAIR

The new clothing repair shop being fielded in 1992 will contain a heat-sealing machine. This machine will repair the Extended Cold Weather Clothing System (ECWCS) (see TM 10-8400-201-23, Unit and Direct Support Maintenance Manual: General Repair Procedures for Clothing and Individual Equipment) and Gortex material. Two types of heat-sealing tape also come with the new shop. Clothing repair shops already in the field do not have heat-sealing machines. Users can obtain the heat sealer with NSN 3540-01-186-7869. The two-layer tape may be procured from Bemis Associates Inc., One Bemis Way, Shirley, MA 01464-2527, Product ST-52 or Electro-Seal Corp., 55 Wanaque Avenue, Pompton Lakes, NJ 07442, Product ST-180. The three-layer tape is available from Electro-Seal Corp., Product ST-184 or W.L. Gore & Associates Inc., Three Blue Ball Road, Elkton, MD 21921, Product HIK 016 GT.

Tips for operating the heat-sealing machine when repairing the ECWCS or Gortex Fabric:

1. Use heat-sealing tape to repair rips up to 15 inches long. Any rips longer than two inches should be basted before sealing application.
2. Always apply heat-sealing tape to inside of the clothing.
3. The heat sealer should normally operate in the temperature range of 300 degrees Fahrenheit to 350 degrees Fahrenheit. Apply pressure for approximately five seconds, depending on the material.
4. Sometimes the operator must experiment to determine the best operating temperature and the correct amount of application time.
5. To test for proper bonding of tape to fabric, fold and crease the repaired area lengthwise. If the corners, edges or middle of the tape separate from the fabric, the bond is incomplete. If the bond is incomplete, repeat the sealing procedure using a higher temperature (20 degrees at a time) and or a longer application period (two seconds at a time).
6. Bubbling or discoloring of the sealing tape indicates too high a temperature and or too long an application time.

The technical point of contact at Natick Research, Development and Engineering Center is Susan Mitchell, DSN 256-5423.

Career Update

WARRANT OFFICER LEADER DEVELOPMENT

MW4 William C. Mullins

On 2 May 1991, Headquarters, Department of the Army activated the Army's Leader Development Decision Network (LDDN) for a Warrant Officer Leader Development Action Plan (WOLDAP). The LDDN's mission is to produce a single-source action plan for both warrant officers in Active and Reserve Components that addresses the three pillars of leader development: institutional training, operational assignments and self-development. The Deputy Chief of Staff for Operations (DCSOPS) tasked Headquarters, Training and Doctrine Command (TRADOC) to chair the LDDN.

The Army currently has a Leader Development Action Plan (LDAP) for commissioned officers, noncommissioned officers and civilians. Although the 1987 Sullivan Study on officer leader development reviewed some aspects of warrant officer leader development, no recommendations were made. Therefore, warrant officers do not have a LDAP parallel to the rest of the Army. The 1984-85 Total Warrant Officer Study (TWOS) produced a new personnel management and training system for warrant officers. Since implementation, a comprehensive review of Army systems has not been conducted to determine if the systems promote leader development of warrant officers. Putting together a WOLDAP will enable the Army to fine tune these systems and bring warrant officers in line with the rest of the Army in the Leader Assessment and Development Program. Further, the LDDN will be able to review the Army's warrant officer program at a time when the future downsizing of the Army can be assessed and lessons learned from *Operation Desert Shield/Storm* can be incorporated.

LDDN members consist of representatives from the Army staff, major commands, Office of Chief of the U.S. Army Reserve and the Army National Guard Bureau. All branch military occupational specialty (MOS) proponents will provide input on topics under review by the LDDN. Some major topics being considered include implementing the Leader Assessment and Development Program into the Warrant Officer Training System (WOTS), assignment policies (progressive and sequential), military qualification standards (MQS) for warrant officers, civil education requirements and goals, warrant offi-

er roles to include training management, the need for a warrant officer professional journal, and leader development for the Reserve Component warrant officer.

Current milestones call for briefing a draft WOLDAP to LDDN general officers in October 1991 and submitting a final WOLDAP to Headquarters, Department of the Army for approval in November 1991.

MW4 William C. Mullins is the Senior Personnel Proponent Officer at the U.S. Army Combined Arms Support Command, Fort Lee, Virginia.

Career Update

QUARTERMASTER WARRANT OFFICERS

CW4 Leslie Craig

During *Operation Desert Shield/Storm* approximately 300 Quartermaster Warrant Officers were deployed and represented all of the four specialties: 920A (Property Accounting Technician), 920B (Supply Systems Technician), 921A (Airdrop Systems Technician) and 922A (Food Service Technician). As I review your Officer Efficiency Reports, it is obvious that your performance was indeed brilliant. Thanks to the entire Quartermaster Warrant Officer Corps! Now, there are some other important issues that I need to bring to your attention:

Southwest Asia Short Tour Credit: There are many who will receive short tour credit as a result of deployment to Southwest Asia in support of *Operation Desert Shield/Storm*. The following is an extract from Headquarters, Department of the Army (HQDA) Message 302201z, April 1991, SUBJECT: Credit for soldiers serving in Southwest Asia, and is provided for your information:

- Unaccompanied short tour credit will be awarded and a new DROS (date returned from overseas) established for all soldiers who serve at least six months in a temporary duty status in Southwest Asia. Soldiers who serve 12 months or more will be given credit for two unaccompanied short tours. There are also many who served at least 45 days but less than six months and will therefore be stabilized according to guidance in HQDA Message 161500Z, April 1971, SUBJECT: Assignment restrictions (stabilization) for soldiers serving in Southwest Asia, which is restated below:
- Twelve-month stabilization before the next dependent-restricted short tour assignment when readiness requirements, grade, military occupational specialty (MOS) and professional development needs permit.
- Four-month stabilization before assignment to any outside continental United States (OCONUS) tour other than a dependent-restricted tour or before the next CONUS-to-CONUS assignment when readiness requirements, grade, MOS and professional development needs permit.

Volunteers may move earlier than the stabilization period specified. Before this occurs the request must be coordinated between the soldier, commander, servicing personnel service center (PSC) and the U.S. Total Army Personnel Command (PERSCOM).

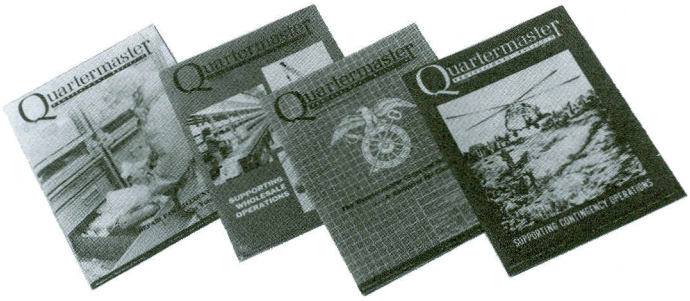
Time on Station (TOS): As a result of the *Operation Desert Shield/Storm* stabilization policy, we may see a reduction in the current TOS. This reduction may be somewhat offset by other ongoing changes such as a reduction in overseas requirements as a result of the Conventional Forces Europe (CFE) Treaty that is now being negotiated. As your career manager, I will attempt to keep you informed of changes in time on station so that you can plan your career as far in the future as possible. I would also encourage you to keep up with current events.

Downsizing of the Army and You: As all of you know, we are moving toward a smaller Army. You should also know that as the Army becomes smaller so will the requirements for Quartermaster Warrant Officers. The reason for telling you this is because as we become smaller we must also become more competitive. The challenge that must be accepted by all of us is to perform to the maximum; develop ourselves in both military and civilian education; and ensure our records are up to date, including current photograph, physical, awards and assignment history.

In summary, it is now more important than ever that each of us stay abreast of the ongoing changes. We hope that the reduced accessions coupled with voluntary requirements will keep pace with any losses in positions. However, just in case they do not, be sure that you are the most competitive.

CW4 Leslie Craig is the Quartermaster Warrant Officer Career Manager at the U.S. Total Army Personnel Command (PERSCOM), Alexandria, Virginia.

SHARPEN YOUR PROFESSIONAL SKILLS WITH THE QUARTERMASTER PROFESSIONAL BULLETIN



As a professional, you need the latest news and information about Quartermaster Corps doctrine, training, operational support and career development. Now you can satisfy that need with a subscription to the **Quartermaster Professional Bulletin.**

Each issue's "Quartermaster Update" section provides valuable news of the Corps, including new programs, services, and sources of assistance.

The **Quartermaster Professional Bulletin** is also packed with authoritative articles written by experts in their fields -- articles covering:

- new developments in technology
- the latest tactics, techniques and procedures
- current training methods
- career development
- historical analysis
- practical instruction

.....and much more!

To join the professional dialogue, listen to "the voice of the Corps" —— subscribe to the **Quartermaster Professional Bulletin.**

Superintendent of Documents **Subscription** Order Form

Order Processing Code:
*** 6058**

Charge your order. It's Easy! MasterCard VISA

To fax your orders–(202) 275-0019

☐ **YES,** please send me the following subscription:

___ subscriptions to **QUARTERMASTER PROFESSIONAL BULLETIN (QPB)** for $9.50 per year ($11.88 foreign).

The total cost of my order is $_____. Price includes regular domestic postage and handling and is subject to change.

(Company or Personal Name) (Please type or print)

(Additional address/attention line)

(Street address)

(City, State, ZIP Code)

(Daytime phone including area code)

(Purchase Order No.)

May we make your name/address available to other mailers? YES ☐ NO ☐

Please Choose Method of Payment:

☐ Check Payable to the Superintendent of Documents

☐ GPO Deposit Account ☐☐☐☐☐☐☐ – ☐

☐ VISA or MasterCard Account

☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

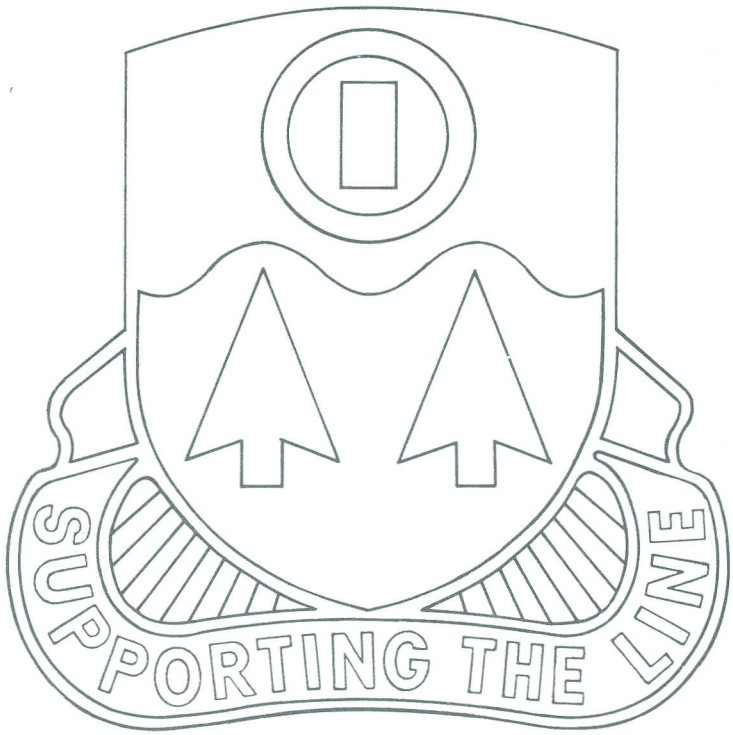
☐☐☐☐ (Credit card expiration date)

Thank you for your order!

(Authorizing Signature) 6/91

Mail To: New Orders, Superintendent of Documents
P.O. Box 371954, Pittsburgh, PA 15250-7954

6th SUPPLY AND TRANSPORT BATTALION



" SUPPORTING THE LINE "

LINEAGE

Constituted 16 November 1917 in the Regular Army as the Motor Supply Train, 6th Division

Organized 11 February 1918 at Camp McClellan, Alabama

Reorganized and redesignated in May 1918 as the 6th Supply Train and remained assigned to the 6th Division

Reorganized and redesignated 26 April 1921 as the 6th Division Train, Quartermaster Corps

Inactivated 20 September 1921 at Camp Grant, Illinois

Redesignated 23 March 1925 as the 6th Division Quartermaster Train

Redesignated 1 May 1936 as the 6th Quartermaster Regiment

Redesignated (less Company E) 16 October 1939 as the 6th Quartermaster Battalion and relieved from assignment to to the 6th Division (Company E- hereafter separate lineage)

Assigned 27 July 1940 to the 6th Division (later redesignated as the 6th Motorized Division) and activated at Fort Des Moines, Iowa

Reorganized and redesignated 9 April 1942 as the 6th Motorized Quartermaster Battalion and remained assigned to the 6th Motorized Division (later redesignated as the 6th Infantry Division)

Reorganized and redesignated (less Gasoline Supply Company) 21 May 1943 as the 6th Quartermaster Company, 6th Infantry Division (Gasoline Supply Company - hereafter separate lineage)

Inactivated 10 January 1949 in Korea

Activated 4 October 1950 at Fort Ord, California

Inactivated 3 April 1956 at Fort Ord, California

Redesignated 24 November 1967 as Headquarters and Headquarters Company, 6th Supply and Transport Battalion, and activated at Fort Campbell, Kentucky (organic elements concurrently constituted and activated)

Inactivated 25 July 1968 at Fort Campbell, Kentucky

Activated 16 April 1987 at Fort Wainwright, Alaska

DEPARTMENT OF THE ARMY
U.S. ARMY QUARTERMASTER CENTER
AND SCHOOL
ATTN: ATSM-QMG-B
FORT LEE, VIRGINIA 23801-5032

OFFICIAL BUSINESS

Inside this *Quartermaster Professional Bulletin*--

Today's Supply Warrant Officer - Technician or Logistician?

Reducing DOD Inventory Levels: Can We Do It?

Inactivating 'Danger Forward'

POMCUS: Ready When You Are

Changing Food Service Tradition

PIN: 068567-000