

Quartermaster

PROFESSIONAL BULLETIN

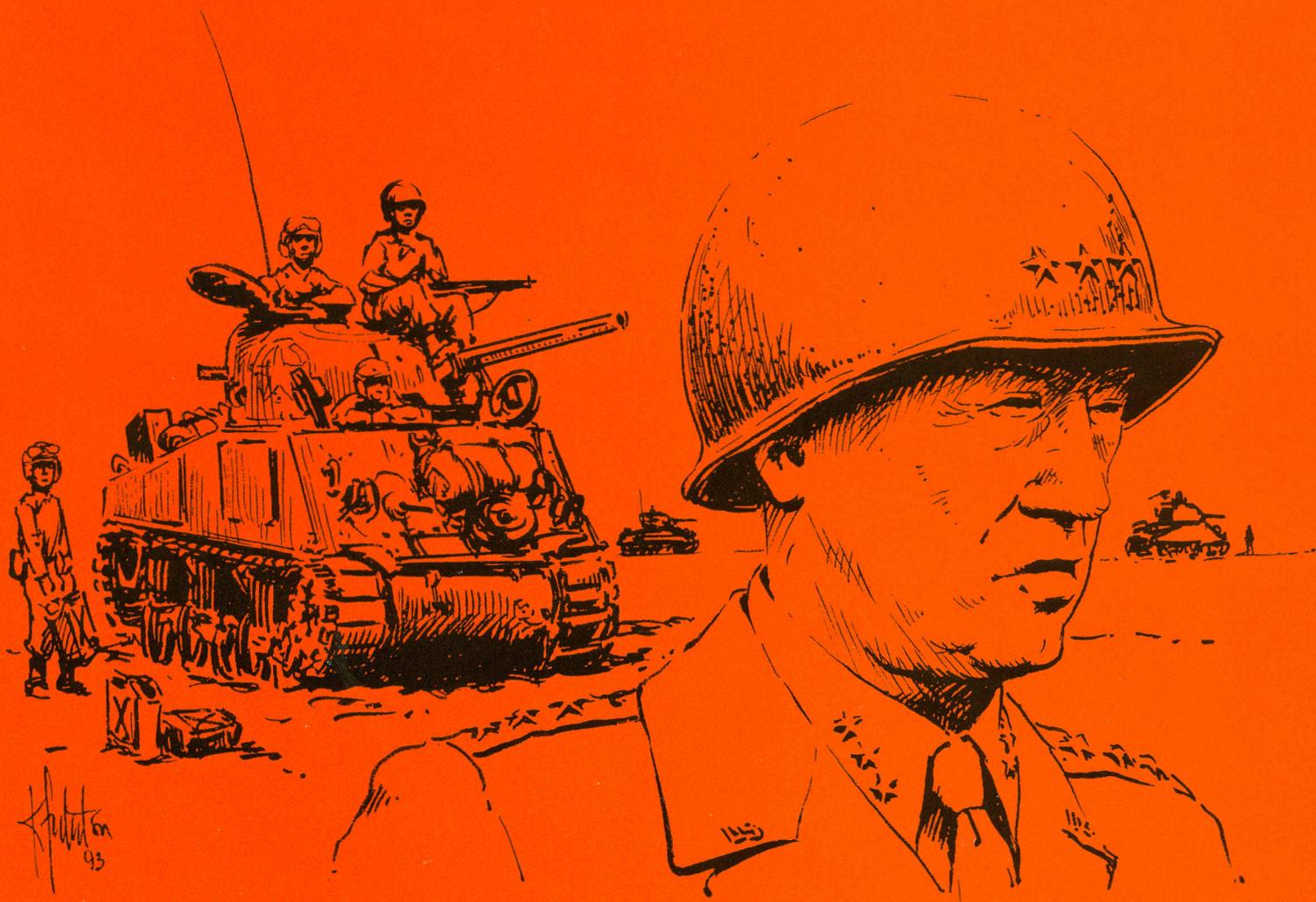
SUMMER 1993

PB 10-93-2

LOGISTICS WARRIORS



*"If they would give me enough gas, I
could go all the way to Berlin."
LTG George S. Patton*



*Summer 1993 Theme:
Quartermaster Support to
Mounted Troops*

Quartermaster

PROFESSIONAL BULLETIN



The Quartermaster General
Brigadier General John J. Cusick

Editor-in-Chief
COL David L. Shaw

Military Editor
CPT Daniel G. Grassi

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. 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. This professional bulletin is approved for official dissemination of material designed to keep Quartermasters knowledgeable of current and emerging developments to enhance their professional development. Use of the masculine pronoun is intended to include both genders where appropriate.

The *QMPB* will print only materials for which the U.S. Army Quartermaster Center and School has pronymency. The *QMPB* reserves the right to edit material. All photographs are official U.S. Army photographs unless otherwise credited. Material may be reprinted if credit is given to the *QMPB* and the author, except where copyright is indicated.

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
04182

Distribution: Special

Logistics Warriors

- 2 **From the Quartermaster General**
Brigadier General John J. Cusick
- 3 **Soar With the Eagles**
Command Sergeant Major Milton B. Hazzard
- 4 **Refuel on the Move: Resupplying Patton's Third Army**
CPT Daniel G. Grassi
- 8 **Supporting a Heavy/Light Rotation at the NTC**
CPT Craig L. Deatrick
- 10 **Field Ration Break Point Operations in Saudi Arabia**
CPT Charles A. Mitchell
- 13 **Class IX Operations: A View From the Main**
CPT Russell D. Cavin
- 16 **Operational Readiness Float**
LT Jamie L. Kandarian
- 18 **Aerial Bulk Fuel Delivery System**
CPT Rick F. Gould CPT Jeff Gabbert
- 19 **Minimizing Death and Destruction in Tactical Convoys**
LT Harold Jones
- 24 **Combat Equipment Group, Europe and the POMCUS Mission**
CPT Luanne J. Sleger
- 28 **1st Cavalry Class IX Challenges**
CPT Hector M. Moran
- 30 **Operation Provide Promise — Resupplying the Bosnians**
CPT Jordan S. Chroman
- 34 **Rear Battle Victory**
CPT Barney I. Smith III
- 38 **Systems for Logisticians**
CPT Danny F. Tilzey
- 40 **Command Philosophy**
CPT Kent S. Marquardt
- 41 **Fratricide: It's Everybody's Business**
CPT Robert R. Jones
- 42 **Class IX Projects**
CPT William M. Wheatley
- 46 **ULLS-S4 — The Commander's Aspirin for Property Accountability**
CPT Todd Pisarski
- 48 **Desktop DS4: A Step in the Right Direction**
LT James S. Moore

COVER: LTC Keith K. Fukumitsu, Quartermaster, depicts a tank in battle with an empty fuel can in the foreground in an original line drawing. LTC Fukumitsu was formerly assigned as Chief of the Course Development Division, Directorate of Training and Doctrine, U.S. Army Quartermaster Center and School, Fort Lee, Virginia.

INSIDE FRONT COVER: LTG George S. Patton's famous quote fits this illustration by LTC Keith K. Fukumitsu, Quartermaster.

- | | |
|---|-------------------------|
| 64 Directory | 51 Safety |
| 52 Professional Readings | 55 Total Force |
| 53 Civilian Supply and Services Personnel | 56 Quartermaster Update |

DISTRIBUTION: Approved for public release. Distribution is unlimited.

POSTMASTER: Application to mail at 2d class postage rates is pending at Petersburg, Virginia 23804-9998, and additional mail offices. Send address changes to *Quartermaster Professional Bulletin*, ATTN: ATSM-QMG-B, Fort Lee, VA 23801-5032.

From The Quartermaster General



Brigadier General John J. Cusick

Quartermaster Support to Mounted Troops

Hear the engines roar! The smell of burning fuel and the choking of gears blasts through the air. The tanks are moving and the Logistics Warrior is right with them! Providing fuel, food and repair parts for the armored track vehicles on the modern battlefields and training areas are great tests of a logistician's skills and abilities. The logistics leader who can comprehend and predict the unique requirements and needs of the mounted soldier will be the leader who succeeds in our Army. As we reshape into a Force Projection Army, the need for decisive power inherent in mounted troops will be of vital importance. The lessons and challenges of supporting heavy forces must continue to be a prime learning objective for all professional logisticians.

Terrific Support

In this edition of the *Quartermaster Professional Bulletin*, which will be my last edition as your Quartermaster General, we are saluting the terrific support Logistics Warriors have given to mounted soldiers in the past and in the present. Providing these tankers and mechanized soldiers with logistical support has always been a high-speed challenge and will continue as we reshape the Army of the future. From the fast-moving **Refuel on the Move: Supporting Patton's Third Army to Supporting a Heavy/Light Rotation at the NTC**, to two fine articles concerning Class IX support in heavy armored divisions, Logistics Warriors throughout the Army have kept the mounted divisions rolling!

Our superb contributing artist, LTC Keith K. Fukumitsu, once again has designed an eye-catching cover and centerfold that visually enhances the theme of this excellent edition. Our fine editorial staff has done a great job during my tour here and have continued to make the "Voice of Our Corps" a professional bulletin that we can all be proud of. Our professional bulletin recently received accolades from the Army's Deputy Chief of Staff for Logistics. I salute them!

Class IX Redesign

The importance of our Class IX redesign program is emphasized once again with an article by

CPT William M. Wheatley, **Class IX Projects**. This article summarizes some of the outstanding work being done on this initiative. Reserve Component happenings are highlighted in our bulletin as a standard entry. This edition also contains interesting articles covering a wide variety of topics to include **Operation Provide Promise - Resupplying the Bosnians, Systems for Logisticians, Rear Battle Victory, Command Philosophy**, and some sound advice on **Managing Your Career in Today's Changing Army**.

One-on-One Relationship

I would like to say that it's been an honor serving the Corps as the 42d Quartermaster General of the U.S. Army and having the privilege to meet and work with so many great Quartermaster Logistics Warriors of all ranks in the Active and Reserve Components, supply career (program) civilians and our retired community. I want you all to continue to be proud of being Quartermasters and to remember your special one-on-one relationship with the American soldier - if Quartermasters fail in their mission, then America's greatest assets, her soldiers, fail. We as Quartermasters can never let that happen. Be proud Quartermaster Logistic Warriors! I would like to welcome the 43d Quartermaster General of the U.S. Army, Major General Robert K. Guest. He is a true Logistics Warrior of great fame and distinction across the U.S. Army for his soldier-oriented career as well as his record of achievement during *Operation Desert Shield/Storm*.

Once again, it's an honor serving with you.



Brigadier General John J. Cusick, the U.S. Army Quartermaster General, has held a wide variety of command and staff positions before his current assignment. Other key assignments include duty as Commander, Defense Personnel Support Center, Philadelphia, Pennsylvania; Commander, First Corps Support Command, XVIII Airborne Corps, Fort Bragg, North Carolina; Commander, Division Support Command, 82d Airborne Division, Fort Bragg, North Carolina; and Commander, 407th Supply and Service Battalion, 82d Airborne Division. BG Cusick will leave his current duties as the 42d Quartermaster General to become Director for Supply and Maintenance, Office of the Deputy Chief of Staff for Logistics, U.S. Army, Washington, D.C.

Soar With the Eagles



Command Sergeant Major Milton B. Hazzard

On behalf of the United States Army Quartermaster Corps Regiment, I bid farewell to Brigadier (Promotable) General John J. Cusick and his wife, Patsy. On 3 August 1993, BG(P) Cusick will march away from his current duties as the 42d Quartermaster General to new duties as Director for Supply and Maintenance, Office of the Deputy Chief of Staff for Logistics, U.S. Army, Washington, D.C.

BG(P) Cusick's achievements and contributions to the Corps are numerous. Perhaps most notable was his leadership in the developmental stages of the Force Provider (modular packages of improved billeting, food service, laundry and shower support to soldiers in the field) and Battle Lab operations for combat service support. Concepts and doctrine evolving from those initiatives will significantly enhance Quartermaster mission capabilities well into the 21st Century.

Writers often have problems with how to write bullet comments. Poorly written bullets will probably miss the target. For example, if the writer of a bullet forces some evaluators to guess the intended message, the guess could be completely different from the writer's intent. A rater could damage a career that he intended to help build, or the reverse could happen.

Each bullet should be measurable. Very specifically indicate what the ratee did at what level of proficiency, with what result.

Some reports concentrate too heavily on particular areas. This limits the scope of the ratee's accomplishments. The result could once again send the wrong message. The impression could be that the ratee has limited abilities.

Concepts and doctrine from Brigadier General Cusick's leadership in Force Provider and Battle Lab operations for combat service support will enhance Quartermaster mission capabilities well into the 21st Century.

The following thoughts and opinions are the result of conversations with senior officers, warrant officers and noncommissioned officers. A serious concern is how it is possible for a single event to impact on years of military service — how a single event could send a career upward to soar with the eagles or downward in an uncontrollable nose dive to crash and burn.

One document very capable of standing alone and significantly influencing a career is the Noncommissioned Officer Evaluation Report (NCOER). Selection boards rely heavily on the NCOER. History provides examples where one single report affected either a promotion or assignment. Often both can be affected at the same time.

Most raters and ratees are aware of the importance of NCOERs. However, problems continue to surface. Some evaluation reports appear to be written simply because they had to be done. Some have been written with other than the ratee as the principal subject. By that I mean some reports have been written with the real target being a third party. Fortunately, the vast majority of raters are sincere and honest in their evaluations.

Duty positions that are technically heavy generally result in a report that fails to talk to critical areas. These critical areas are leadership and military duties not directly related to the technical side. This is especially important to how a soldier's senior career will track.

Terms and titles that mean something only in a local area are dangerous. The evaluators may be embarrassed because they do not recognize some terms or titles. The result could weigh against a ratee. That may sound unbelievable. The fact is that it can happen and has happened.

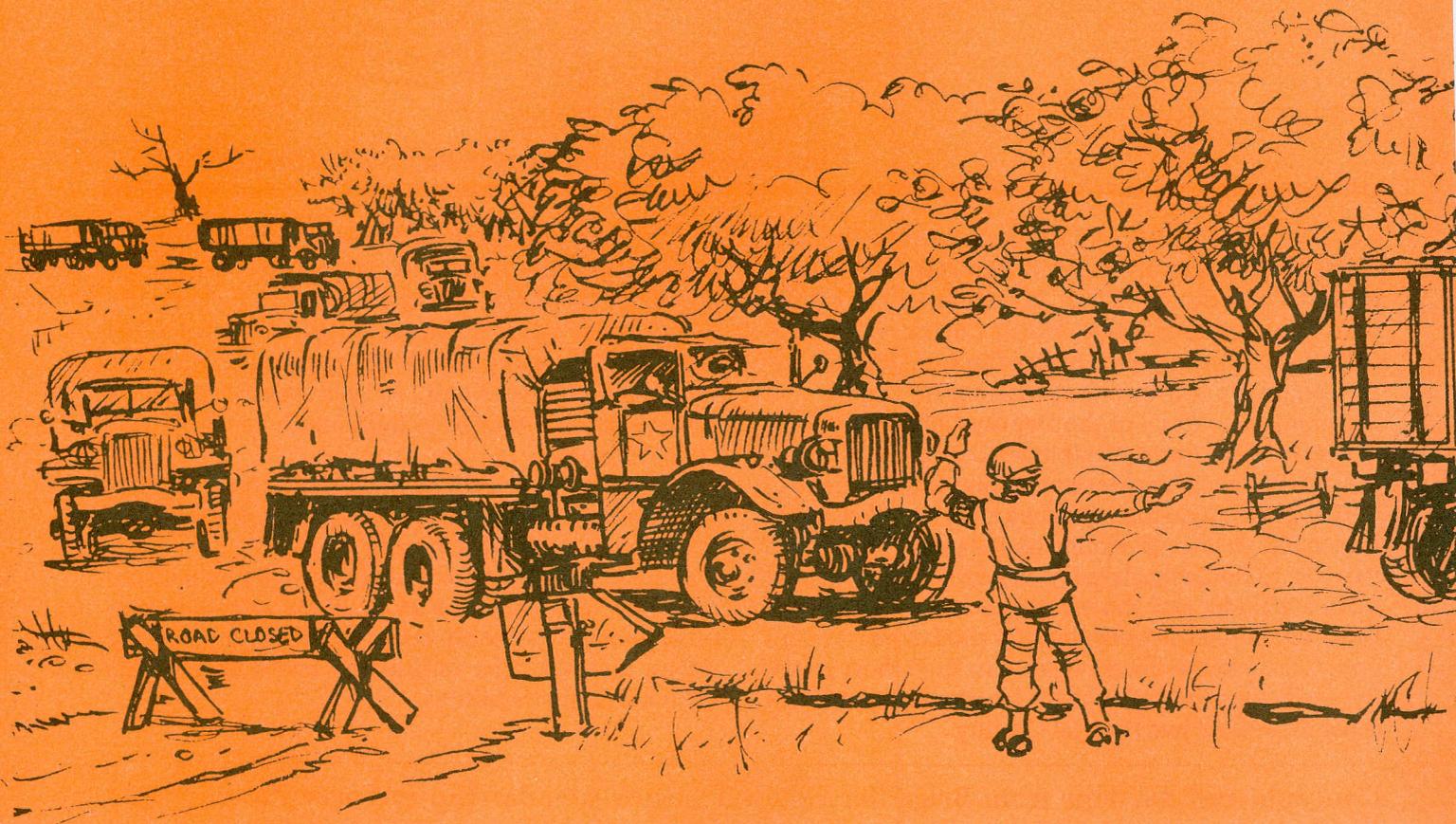
How many times has compassion overpowered integrity and fortitude when recommending the future of a soldier? Evaluation boards are heavily influenced by these recommendations, so comments must be honest.

The point is that evaluation reports are one of the cornerstones on which the Army is constructed. If the foundation is weak, so will the structure be.



CSM Milton B. Hazzard is the Command Sergeant Major of the Quartermaster Regiment and of the U.S. Army Quartermaster Center and School, Fort Lee, Virginia.

Trucks on the Red Ball Express move through a French town on their way to support Patton's Third Army, Autumn 1944.



Refuel on the Move: Resupplying

"We held the enemy by the nose and kicked him in the pants." Speaking to a crowd of tired GIs in the French city of Metz in November 1944, LTG George S. Patton, commander of the Third Army, summed up the recently completed World War II offensive. A historic fortress of a city, Metz, had long been a pain in Patton's neck. Along with other areas of French Lorraine, Metz had been among the Third Army's toughest engagements of the entire war.

Early in the campaign, the nine divisions comprising the Third Army were measuring their daily achievements in quick miles. However, by September, the fast-moving "Lucky Forward" was lucky to be counting

its advancements in yards. The key was logistics.

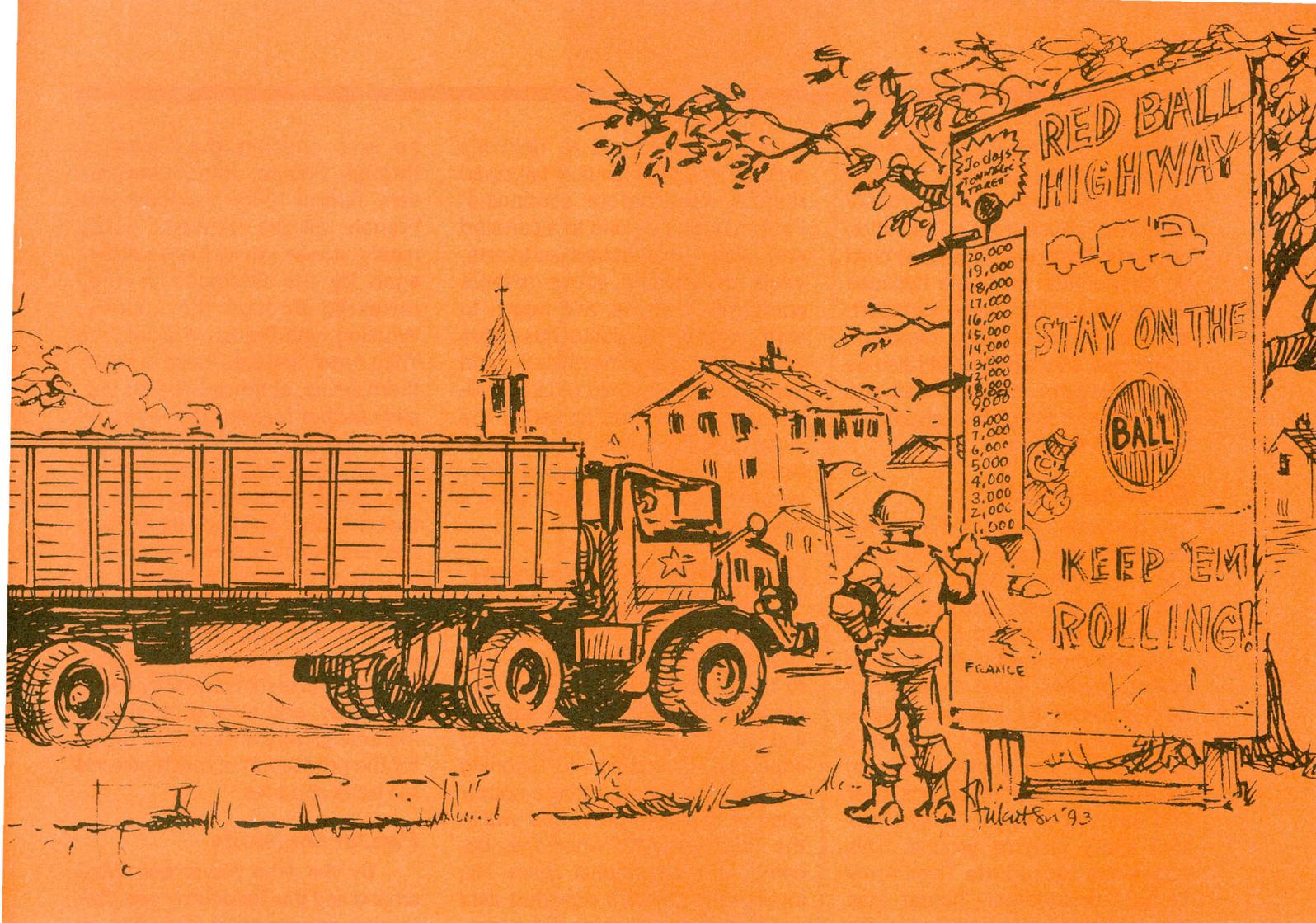
On 28 August, Patton summed it up this way, "At the present time our chief difficulty is not the Germans, but gasoline. If they would give me enough gas, I could go all the way to Berlin!"

Ready to Attack

Not surprisingly, the limitations of logistics weighed heavily on the tactical decisions of commanders on the offensive. By mid-September the Allied armies stood ready to attack on the German border in the north and on the banks of the Moselle River in the south. After successes before this, the armies were stopped short, mainly be-

cause of breakdowns in the supply system. Especially frustrating to tactical commanders such as Patton, these shortages took their heaviest toll on the soldiers who thought that the war was finally coming to an end. What went wrong? By studying logistics support to heavy units such as Patton's Third Army, Quartermasters of today will better be able to win on the battlefields of tomorrow.

After becoming operational on 1 Aug 44, Patton's Third Army moved quickly and struck hard into the German defenses. After racing past the German Seventh Army and tearing into the German forces from all four directions at once, Patton's ruthless and reckless style earned him a reputation by both Allied and Axis forces.



Patton's Third Army

CPT Daniel G. Grassi

German Army Group B Commander, Guenther von Kluge, reported the success of Patton: "As a result of the breakthrough of the enemy armored spearheads, the whole Western Front has been ripped wide open."

By mid-August Patton was driving virtually unopposed through France and had his sights set firmly on the Rhine. "We have been going so fast," Patton wrote, "that our chief difficulty consists in our inability to keep our spiderweb behind us. Our supply people, however, have really done marvels, and we always have sufficient of everything...."

Red Ball Express

While Patton was racing

through France consuming an average of 350,000 gallons of gasoline each day, the famous Red Ball Express was organized to meet his growing demands as well as those of the First Army. Essentially a non-stop convoy of trucks connecting supply depots in Normandy to the armies in the field, the Red Ball at its peak used 6,000 trucks to complete its missions. As Patton advanced deeper, the demands placed upon the Red Ball grew faster than it was able to supply. Using 300,000 gallons of fuel each day itself, the Express pointed out what was becoming grossly obvious to tactical commanders, the Allies were running out of gas. On 28 August, Patton's army was forced to ease

up when its fuel allocation fell 100,000 gallons short. Even though gasoline was in abundance in Normandy, the Red Ball could not transport it in sufficient quantities to the Third's forward units. On 31 August, after receiving no fuel at all, Patton's spearheads came to a halt.

During the next week, as Patton idled in park, General Dwight D. Eisenhower gave logistics priority and fuel allocations to units farther north. By the time normal fuel allocations resumed in the Third Army, the opportunity to sweep through Lorraine freely had passed by Patton.

Concurrently with his fuel problems, Patton experienced two other situations which began to jab at his side during this first part of Sep-

tember. First, as the Third Army became more stationary, it began to use its larger caliber artillery weapons, causing an ammunition shortage. There was no way to build up ammunition stockage because all available trucks were transporting fuel. As the Lorraine campaign continued, shortages would also be felt in clothing, rations, tires and antifreeze for the quickly approaching winter months.

Massing Forces

Secondly, as Patton's armies waited for the supply train to catch up, the Germans were massing forces throughout Lorraine. Hitler ordered soldiers into the area at once and their numbers would increase greatly. Even though still outnumbered by Patton's forces and superior firepower (estimated at 20 to 1 in tanks), these German forces, made up of many sick, deaf and garrison soldiers, would contest every inch of ground. This resistance caused the Third Army to fight considerably harder than they were accustomed during the first months of the campaign. Patton's two Corps, the XX and the XII, made up of four to six infantry divisions and two or three armor divisions, would be responsible for most fighting during the next bloody months in France.

In 1944, an armor division was relatively small compared to today. With 11,000 men and 263 tanks, it had three tank battalions, three battalions of armored infantry and three battalions of self-propelled artillery. Tactical doctrine of the day said that the armor division was primarily a weapon of exploitation to be used after the infantry achieved initial penetration into enemy defenses. This doctrine suited Patton to a tee, as he employed the mobile, quick-moving M-4 Sherman tank with its multipurpose 75mm gun. Patton's success, largely due to his understanding and use of heavy armored vehicles, made him the chief concern of the German armies of the time.

On 25 September, Patton was

ordered to halt and to hold his ground until the logistical tail could restock itself before continuing. Patton, not being one to sit around and wait, established outposts, while maintaining active reserve contingency forces, and began to restock his own logistical base from within. Strict gasoline rationing and using mortars instead of large caliber weapon rounds lessened the initial two concerns of the Third Army. How do you resupply a heavy armor division in combat? Here's how Patton did it.

Quartermasters Important

First, Patton ordered stringent accountability of all supplies. The Quartermasters, due in large part to the severity of the crisis, were elevated in importance. Patton relied upon them for guidance and expertise. In addition to rationing supplies, he ordered that a supply base of reserves be stored within the Third Army for when they became fully operational again. His intelligence officers provided data on German movements in the area, and Patton wanted to be ready to move out at full speed when told to do so. No stopping the Third Army now, Patton must have thought. He did not realize then that he would basically be stationary until 8 Nov 44.

While better managing his own supplies, Patton also used other means of collecting additional assets from the local areas. Supplies and equipment from captured German forces were put to great use replenishing the Allied stocks. Once it was even reported that an artillery barrage from the XX Corps zone came from captured German 105mm howitzers, Russian-made 76.2mm guns, French 155mm howitzers (also captured from the Germans), and German 88mm antitank guns. During one period in October, 80 percent of artillery ammunition used by XX Corps was captured from German units.

Another key factor in resupplying Patton's Third Army was his use of what we now call "host nation support" from the French. As

he was chasing the Germans through France, Patton became very familiar with the extensive French railroad network. Fortunately, it was left virtually undamaged by the Germans as they retreated through the country. Working with French civilians, the Third Army operated these railroads themselves, at times bringing supplies farther forward than ever before. In addition to the railroads, French factories provided relief for the Allies in such areas as repairing tank engines, building tank escape hatches and track extenders (which increased the tanks' mobility in the muddy terrain), supplying thousands of gallons of alcohol instead of the scarce Prestone antifreeze, reopening coal mines and dry-cleaning plants, and turning the rubber manufacturing plants over to Patton for the production of much-needed fan belts and tires.

Panzer Divisions

By the time November rolled around and the Third Army was able to start moving again, they had replenished their depleted stocks and had built a substantial reserve. With many of his logistical nightmares behind him for the moment, Patton could concentrate on the tactical campaign at hand and the difficulties that he was experiencing with the feared German panzer divisions. Even though greatly outnumbered, the Germans took advantage of Patton's weaknesses in neglecting to practice economy of force and were able to wage several counterattacks into the Allied forces. Patton believed that he should spread out his Third Army over a vast front so that he would be strong in all areas. This philosophy backfired on him, however, because the forces were spread too thin and were not particularly strong anywhere. As a result of this error, heavy doctrine changed after the war from fighting dispersed to marching dispersed but fighting concentrated and tight. Patton's Third Army suffered many casualties for not realizing this sooner against the German armies.

The campaign through Lorraine, France, in World War II truly demonstrated that logistics is the key to battle. Patton was an aggressive and powerful commander, but logistics controlled his ability to maneuver. At the beginning of the campaign, when he raced through France gambling with tactics and doctrine wherever he went, he achieved great successes. However, by September he realized that eventually in logistics you must repay and restock the hands that are feeding you. His neglect of fuel and ammunition shortages cost the entire army until finally he was forced to stop and regroup. His reliance on the Red Ball Express was too great. Not until he realized that it was consuming more than it was delivering did Patton turn to the more reliable means of rail transport and local requisitioning for resupply.

Patton's Third Army during the Lorraine campaign could not declare complete victory. In just over three months, the Third Army suffered 50,000 casualties and lost enormous amounts of equipment. The real victory of Lorraine was the soldier's ability to maintain the fight and the logisticians' ability to re-supply the force. Fighting seemingly insurmountable odds and harsh weather conditions, Quartermasters of the day came through by using ingenuity, expertise, sheer hard work and determination.

Fight for Today

Look at the past, look towards the future, fight for today. Logisticians must be able to adapt and overcome, whatever odds may be in their way. The battle must continue for us all to win.

Patton summed it up this way: "You know that I have never asked

one of you to go where I have feared to tread. I have been criticized for this, but there are many General Pattons and there is only one Third Army. I can be expended, but the Third Army **must** and **will** be victorious."

Leaders come and go, but the Army and the battle will continue. Will **you** be ready to support? 

CPT Daniel G. Grassi is currently the Military Editor of the Quartermaster Professional Bulletin. He has a bachelor of arts degree in history from Appalachian State University, Boone, North Carolina. He is also a graduate of the Field Artillery Officer Basic Course, Quartermaster Officer Basic and Advanced Courses, Combined Arms and Services Staff School, Subsistence Officer's Course, Contracting Officers Representative Course and the Installation Logistics Management Course. His previous assignments include Fire Direction Officer, Battery Executive Officer, Assistant Brigade S4, Troop Issue Subsistence Officer, Retail Services Officer, Battalion S1 and Commander, Uniform Company, 262d Quartermaster Battalion, Fort Lee, Virginia.

Quartermaster Support to Mounted Troops



M47 Tank at a Refueling Point Near Rothemburg, Germany, 1954

Supporting a Heavy/Light Rotation at the NTC

CPT Craig L. Deatrick

Thick, choking dust rose from the desert floor as hundreds of vehicles departed the Dust Bowl, signifying the start of another 12-day training rotation at the National Training Center (NTC), Fort Irwin, CA. Among the vehicles from the brigade combat team (BCT) was an additional element. A battalion task force comprised of an Airborne Infantry battalion and an Armor platoon joined this BCT. This presented the brigade commander with interesting opportunities and combat multipliers while confronting his logisticians with unique obstacles.

Supplying a heavy BCT at the NTC can be challenging for the supply company of the forward support battalion (FSB). Many requirements must be met with few resources. The augmentation of light forces to the heavy BCT adds a new dimension that significantly increases the workload of the supply company. However, effective early coordination, planning and innovative support will enable the supply company to successfully support the entire BCT to include the light force augmentation. The following is a discussion of some of the unique considerations for a heavy supply company supporting a heavy/light rotation at the NTC.

Coordination

A critical element of success for a heavy/light rotation at the NTC is coordination. As far in advance of the rotation as possible, key leaders must talk and understand mutual capabilities and limitations. These meetings will dispel any unrealistic expectations on both sides and therefore increase the level of cooperation between the supported and supporter. At a minimum, the personnel listed below must meet telephonically and, preferably, in person.

| Light Task Force | FSB | Heavy Brigade |
|-----------------------------------|----------------------------|---------------|
| Task force executive officer (XO) | Support operations officer | Brigade S4 |

Support slice officer in charge (OIC)

During this meeting, the following actions should occur:

- Standing operating procedures (SOPs) should be exchanged and distributed. The commander and platoon leader from the FSB supply company should become very knowledgeable with the light task force's operations.

- A by-name/position roster should be exchanged. This roster should be given out to the lowest possible levels. This will prevent a supply company noncommissioned officer (NCO) from reporting that "Some airborne guy needs packaged Class III (petroleum, oils and lubricants)." Hopefully, the NCO will refer to the roster and determine the validity of the request/requestor.
- An itemized equipment list must be obtained from the light forces. This should include equipment they will bring, draw and require lift (materials handling equipment (MHE) or cranes), and anticipated arrival times for this equipment. Obviously, this will change, but it will allow the supply company to plan and prioritize. For instance, if the light forces bring large amounts of equipment requiring lift, planners should consider rail-loading additional MHE or cranes to make early off-load of this equipment easier. Also, if the light forces plan to bring equipment which uses relatively large amounts of motor gasoline (MOGAS), planners should consider drawing/bringing a MOGAS tank and pump unit (TPU). An additional benefit of close coordination is that key leaders begin to develop close rapport. One key reason for the success of the FSB concept supporting BCTs is the habitual relationships that develop.

Customer units know who can help them solve problems. Good prior coordination can assist in this process by linking the supported and supporter. This linkup should take place down to the lowest level possible at the earliest time possible. This way, problems are resolved at the lowest possible level.

Capabilities

The limited transportation and storage capabilities of light forces can present difficulties for logisticians from a heavy FSB. For example, a summer rotation at the NTC may require issuing water and ice twice a day to the light forces, while the heavy forces require resupply only once a day because of their greater transportation and storage capability. While light forces are limited in their transportation and storage capabilities, they also are more flexible when it comes to methods of resupply.

During the coordination phase, an in-depth analysis of the light task force's personnel and equipment should be conducted to determine the logistical needs and capabilities of the light task force. During this process, the following questions must be answered about the light task force:

- What size trucks will the light task force support element use? If the light task force support element plans to rely primarily upon 2 1/2-ton or 5-ton trucks, serious consideration should go into the method of resupply. Truck-to-truck transfers can be significantly easier than down-loading supplies from a direct support activity stake and platform (DSA S&P) trailer only to attempt using MHE to load rations or ice onto a 2 1/2-ton or 5-ton truck. Arranging for truck-to-truck transfer will require coordination with the DSA and light task force support element so their trucks arrive simultaneously and so that the DSA will allow a supply break directly from their trucks. However, the time saved is well worth the effort, particularly when dealing with perishable commodities such as ice.
- Who will bring slings/nets for slingloading and in what quantities? How will accountability be maintained? Consideration should be given to consolidating slings/nets with the DSA so that throughput operations can occur when necessary. Accountability procedures must be determined well in advance of the rotation to eliminate lost equipment fears and thereby enhance cooperation among units.
- At what point, if ever, will the light task force enter a static position? Since the light fighters will rely heavily upon surprise for success when confronting the mechanized opposing forces (OPFOR), they will want to significantly reduce traffic to/from their location when in the de-

fense. This means the logisticians should consider stockpiling or even caching nonperishable supplies with the light task force during the early phase of defensive operations, thereby reducing their signature.

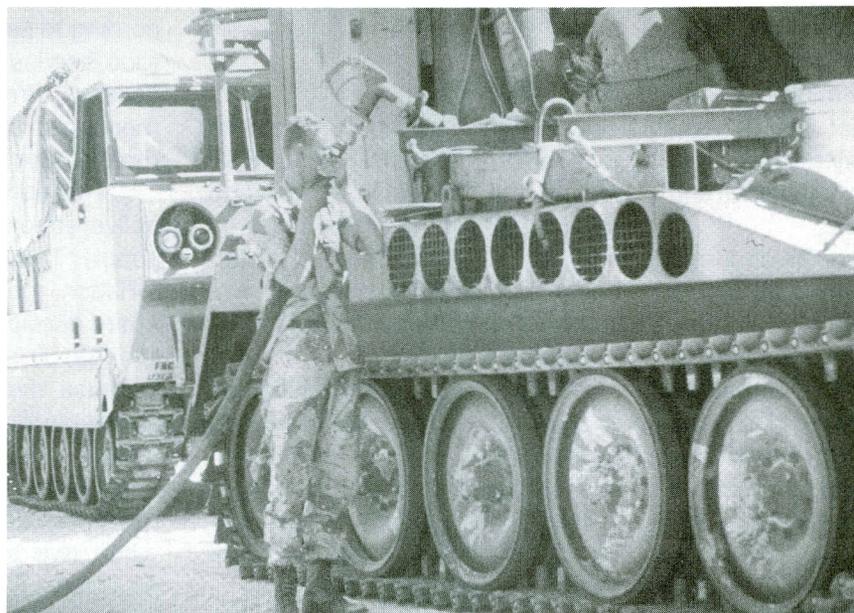
- Will the light task force have rigger support? If an airdrop requirement is identified before the rotation, the light task force can bring the necessary equipment to facilitate aerial delivery of critically needed supplies to forces located in otherwise untenable terrain.

Although these considerations are not meant to be all-inclusive, they may significantly reduce the frustration on the part of heavy FSB logisticians supporting a heavy/light rotation at the NTC.

As the dust settles back to the desert floor after the last of the BCT's vehicles cross the Line of Departure, the heavy FSB logistician can rest assured this rotation will prove that all the hard work, coordination and planning during the previous weeks will add to the combat effectiveness of the BCT. 

CPT Craig L. Deatruck is a graduate of the University of California, Irvine, where he earned a bachelor of arts degree in history. He is also a graduate of the Quartermaster Officer Basic and Advanced Courses. He was previously assigned to the 64th Forward Support Battalion, 4th Infantry Division, Fort Carson, Colorado, where he served as Maintenance Platoon Leader, Assistant Battalion S2/3, Supply Company Executive Officer, and Battalion S4. Currently attending the Petroleum and Water Officers Course, he will be assigned to Germany upon graduation.

Quartermaster Support to Mounted Troops



Refueling in Saudi Arabia, Autumn 1990

Field Ration Break Point Operations in Saudi Arabia

CPT Charles A. Mitchell

Supply subsistence in the desert has often posed unique challenges throughout the course of military history. Nowhere is this more true than in 3rd Armored Division (Spearhead) during *Operation Desert Storm*. The 122d Main Support Battalion (MSB) provided the division with nonstop ration support in the face of sandstorms, floods, hot weather and rough terrain. The battalion had to develop creative ways to provide the best possible support to its customers. As the Class I (rations) Platoon Leader in the 122d MSB, I had the best vantage point to observe Class I operations within 3d Armored Division.

Realistic Training

After more than 150 days in the field in 1990, the battalion's Class I section was well prepared for field ration break point (FRBP) operations in Southwest Asia. The Combat Maneuver Training Center at Hohenfels, Germany, strengthened the section immensely by providing intense and realistic training throughout the year. The Class I section deployed to Saudi Arabia in December 1990 with its full personnel authorization: one lieutenant, one sergeant first class, one ration sergeant, five specialists and five privates first class.

Our first stopover "in country" was at the King Abdul Aziz Port in Dammam. After spending three weeks waiting there for vehicles and equipment, the 122d MSB moved north west along main supply route (MSR) Dodge to occupy positions in what was loosely called "Camp Henry." This would be the site of the battalion's first FRBP.

The Camp Henry FRBP shifted into full operations as *Operation Desert Shield* moved into *Operation Desert Storm*. Our biggest

problem in this location was transportation: not enough trucks. Stake and platform (S&P) trailers within the MSB were dedicated to transporting ammunition, clearing ports, and critical priorities. Therefore, pushing rations forward to brigade support areas was not feasible. But despite limited transportation assets, soldiers had to be fed. Selected divisional units unloaded every available truck to assist the forward support battalions (FSBs) in Class I pick up at the main FRBP. Rations were then issued to FSBs at the MSB FRBP until S&P trailers became available. This system, however, heavily burdened the FSBs because it required them to make multiple daily trips to the main FRBP. Shortly after the cease-fire, the MSB Class I Section received 16 S&P trailers. With these assets, rations could then be "pushed" forward to three FSBs and to the division's Aviation Support Battalion. Pushing rations forward, as our doctrine requires, decreases customer backlog at the main Class I site and frees transportation for other FSB priorities.

Bottled Water

Commercial and corps trucks rolled into the Camp Henry FRBP around the clock. On an average day in the desert, the FRBP received 17 tractor trailers of bottled water. The challenge here was to unload bottled water without destroying the bottles.

Corps trucks often traveled up to 20 miles off hard surface roads to reach the 3d Armored Division support area. Bad weather, poor packaging and rough terrain contributed in causing extensive damage to the bottled water cargo.

Diverting corps trucks to the FSBs helped to reduce the large labor force required to support the

MSB FRBP. By implementing the throughput method of resupply, 3d Armored Division customers received bottled water faster and in better condition. Bypassing the MSB FRBP also minimized double-handling of the product. Bottled water designated for the division's days of supply stockage continued to be stored at the 122d MSB FRBP.

Spearhead soldiers were issued three bottles per day during the months of January, February and March. When the temperature increased over 30 degrees in April, we began issuing six bottles of water per soldier per day. The demand for water increased as the temperature increased. Bottled water was also a part of 3d Armored Division's basic load.

Preferred Rations

The 122d MSB FRBP was the heart of all Class I activity within 3d Armored Division. We received most of the Army's family of rations throughout our 40-day stay at Camp Henry. Unitized B-Rations proved to be the success story, according to senior commanders and food service sergeants within the division. Preparing two B-Ration meals per day often served as a morale booster.

T-Rations (tray packs) were delivered to the Class I site in short supply. There were never enough T-Ration modules to support the entire division. T-Rations are popular with Food Service Specialists because they are easy to handle and fit perfectly on the back of S&P trailers.

Meals, Ready to Eat (MREs) remained in constant demand even when two hot meals a day were provided. The MSB FRBP maintained a three-day supply of MREs for the division. Pouch bread (MRE Bread), flameless ration heaters,

and heat-stable chocolate bars were provided for supplemental issue with MREs.

Meals, Operational Ready to Eat (MOREs) debuted in 3d Armored Division at Camp Henry. MOREs are commercially prepared entrees and snack items similar to the ones at a local commissary. Examples are Campbell's Soup cans, microwavable lunch buckets, M&Ms candy and Granola Bars. Food Service Specialists found MOREs difficult to issue because the rations were shipped without unitized packaging.

"How much of each item does one soldier need for one day?" was a question food service sergeants often asked. As a result, MOREs were issued in bulk to divisional customers. Most unit level commanders served MOREs as supplements to MREs, not as a separate meal as the ration is designed.

First Time

Ration Supplement Sundries Packs were seen for the first time by Spearhead soldiers. Sundries Pack Type I provided a day's supply of specified items for 100 soldiers. Sundries Pack Type II contain health and comfort items for 25 to 30 women for 30 days. Uneven quantities of items were one drawback to the sundries pack. A Sundries Pack Type I would contain five 6.4-ounce bars of soap and 20 7-ounce tubes of toothpaste along with 31 other separate items. Who gets the toothpaste and soap? The boxes were packaged for too many soldiers.

3d Armored Division moved to Forward Assembly Area (FAA) Butts on February 16 to prepare for a frontal assault against the Iraqis. The Class I site at FAA Butts received shipments of MREs, B-Rations, MOREs and bottled water. The division ate these rations until "Camp Spearhead" was established. The division occupied Camp Spearhead, located at a military city in Kuwait, from mid-March to early May.

The newest addition to the ration family at Camp Spearhead was A-Rations: two A-Ration meals per day. A-Rations are perishable food items that normally need refrigeration. These rations were extremely difficult to handle in Southwest Asia. Meat and produce required refrigeration at all stages of storage. Many customer units did not have refrigeration capability. Additionally, the A-Ration cycle doubles the labor force at main FRBP because most A-Ration menu items require individual handling.

Ice requests increased over 90 percent at Camp Spearhead. When it's hot in the desert, ice is more precious than gold. Ice was by far the most popular subsistence item as temperatures began to soar. Ice quickly became the "hottest" subsistence item in the division. Ice became so "hot" that general officers often decided which units would receive ice. Ice was used mainly to cool beverages and bottled water.

Ice Daily

In April of *Operation Desert Storm*, the 122d FRBP received two 30-foot commercial refrigeration vans of ice daily. Each van stored up to 900 60-pound bags of potable ice. These deliveries provided only 50 percent of the ice required to support a headcount of 18,000 with an issue factor of six pounds per soldier each day. Ice factories in Saudi Arabia could not produce enough ice to keep up with the enormous demand. The size, condition and national origin of the commercial vans often varied on most shipments. The variations in size and configuration of the ice cargo created a number of challenges. As a result, we implemented procedures to ensure an accurate inventory.

First, we counted the number of bags stored on each truck. Then we checked the operating condition of the refrigeration van engines. Do inoperable engines on refrigeration vans cause melting? If so, do the bags still weigh 60 pounds?

Are all the bags the same size? How durable are the plastic bags storing the ice? If the bags tear easily, then what will we use as our waste factor? Those measures were taken to ensure that Spearhead soldiers received ice as equitably as possible.

When the refrigeration vans began arriving in larger volume (more than four vans a day), the division support command (DISCOM) commander began looking for a different way to distribute ice. He found it: ice transfer points. The transfer point would be centrally positioned in northern Kuwait between the MSB and FSB areas of operation. Commercial refrigeration trucks linked up with the FSB Class I sections at the transfer point. Each FSB used two 30-foot refrigeration vans to pick up and store the ice. The commercial vans were accompanied by two Food Service Specialists from the Main FRBP who supervised the site. *Operation Iceberg*, as it was named, allowed a smooth hand-off of ice to the FSBs. The ice transfer point reduced the wait time for ice and again customers benefitted by receiving ice faster.

Possible Solutions

- Our inability to push rations as our doctrine requires can be solved by assigning more trucks to the MSB's transportation motor company during wartime.
- Contractors should manufacture durable plastic bottles and cardboard boxes when bottled water is shipped in massive volume. A large portion of the bottled water cargo was damaged because of poor packaging.
- When an A-Ration cycle is determined for extended periods, the MSB Class I section must be augmented with a perishable subsistence platoon. Otherwise, the section remains shorthanded or rounded out with soldiers from other military occupational specialties.
- Continue to develop unitized B-Rations. This is the kind of

meal soldiers want most. The 3d Armored Division's commanding general stated that the division would have been well taken care of in Southwest Asia as long as MREs, unitized B-Rations and water were provided. He added that A-Rations were very difficult to arrange, but the Army must maintain the capability.

Current Improvements

- The U.S. Army Training and Doctrine Command (TRADOC)

is studying various ways to provide prepackaged water on the battlefield. Bottled water is fine as long as the host nation is capable of producing it.

- MORE rations are now called SMOREs (Self-Heated Meals, Operational Ready to Eat). The SMORE is designed similar to a TV dinner and provides a self-heating meal to the individual soldier. An acceptance test was conducted at Fort Bragg, NC, in December 1991.
- The U.S. Army Center of Ex-

cellence, Subsistence is circulating a survey that solicits soldier input on what items should be contained in sundries packs. The new plan is designed for 15 soldiers to receive one sundries pack every 125 days.



CPT Charles A. Mitchell was a student in the Quartermaster Officer Advanced Course when he wrote this article. He was previously assigned to the 122d Main Support Battalion, Germany.

**SHARPEN YOUR PROFESSIONAL SKILLS WITH
THE QUARTERMASTER PROFESSIONAL BULLETIN**

Superintendent of Document **Subscription Order Form**

Order Processing Code:
*** 6058**

**Charge your order.
It's Easy**

To fax your orders-(202) 512-2233

YES, enter my subscription(s) as follows:

___ subscription to **QUARTERMASTER PROFESSIONAL BULLETIN (QMPB)** for \$9.50 per year (\$11.90 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.)

For privacy protection, check the box below:

Do not make my name available to other mailers

Please Choose Method of Payment:

Check Payable to the Superintendent of Documents

GPO Deposit Account -

VISA or MasterCard Account

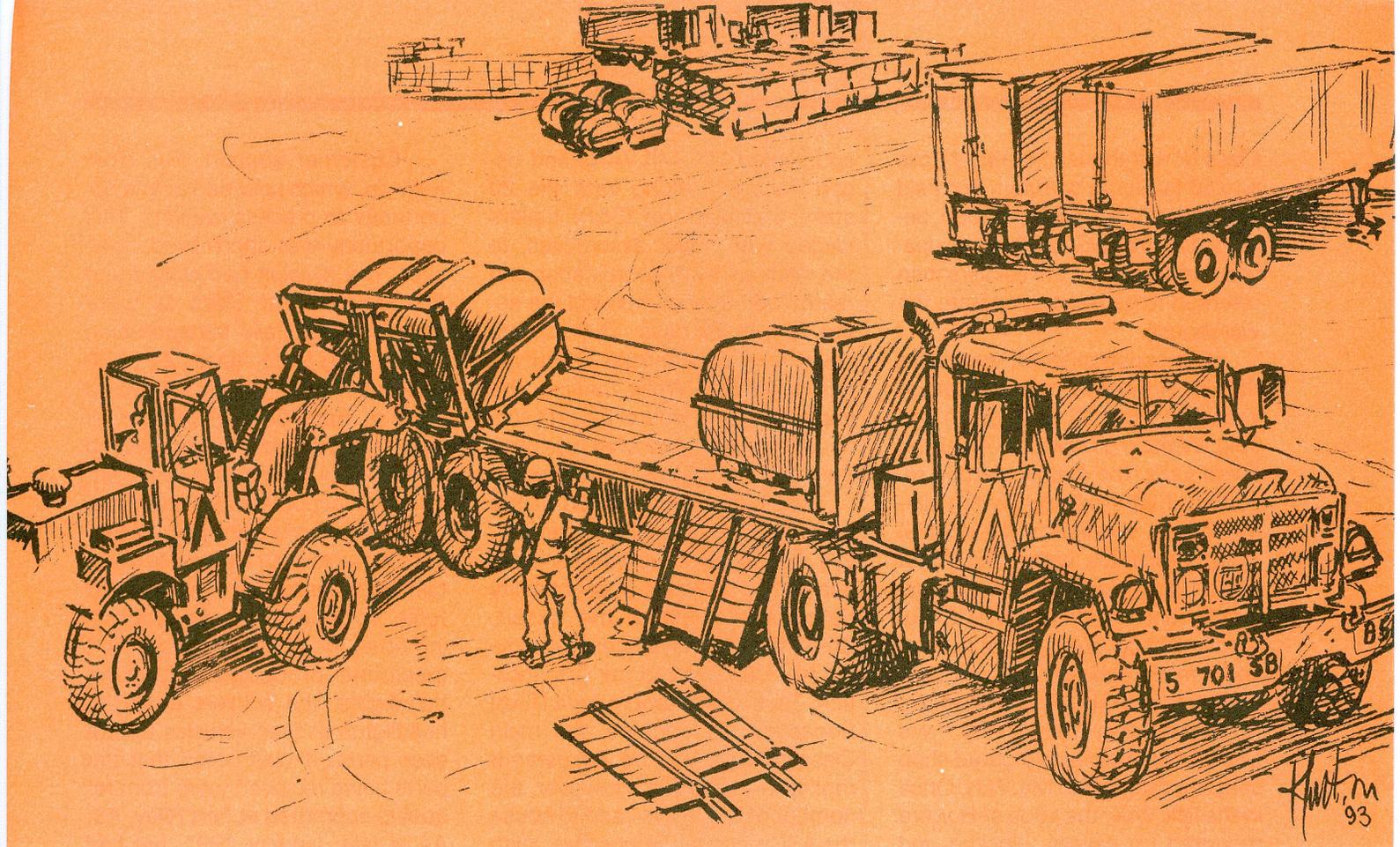
(Credit card expiration date)

*Thank you for
your order!*

(Authorizing Signature)

7/93

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



Soldiers load supplies on vehicles at Class IX point during Operation Desert Shield/Storm.

Class IX Operations: A View From the Main

CPT Russell D. Cavin

As usual, the talk of the day among soldiers of the 701st Main Support Battalion (MSB) at the Class IX (repair parts) warehouse focused on *Operation Desert Shield*.

"Who do you think they will send next, sir?" The soldiers asked. "I have no idea," I replied.

As the business of the day continued, I wondered, "How could I, a junior first lieutenant, possibly deploy and operate this supply support activity (SSA) in Saudi Arabia?" The thought was mind-boggling. I would have to pack up a warehouse of approximately 8,000 lines of repair parts. Basically, we would have to make an operation as large as a

post exchange (PX) mobile and functional. I had been assigned as the Class IX officer in charge (OIC) only a few weeks earlier. I spent most of my time learning the ropes of my new job. Unexpectedly, my learning process increased at a dramatic rate.

In early November 1990 as I approached the receiving section, I noticed soldiers huddled around a radio. One noncommissioned officer (NCO) turned to me and said, "Pack your bags LT, we've just been alerted!"

Before the radio announcement, the planning process had begun. The division materiel management center (DMMC) Class IX sec-

tion was working on the identification of a combat authorized stockage list (CASL). The section was reviewing the current authorized stockage list (ASL) and separating lines with essentiality codes of A, C, E, and J. This list was further refined through a series of review boards with the support operations officer, maintenance shop officers and maintenance technicians. The final CASL had about 2,500 lines of Class IX. This CASL took priority when the upload began.

Fixed Facility

Unlike our forward support battalion (FSB) counterparts, the MSB

Class IX warehouse operated from a fixed facility in garrison. For field exercises, the supply platoon deployed to the field for initial occupation and setup, but the soldiers then returned to garrison to operate the warehouse.

The supply platoon was short the 16 authorized supply storage vans for Class IX storage in the field. With no prospect of receiving these vans, the supply platoon received five military-owned demountable containers (MILVANS) from companies within the 701st MSB. Using modified table of organization and equipment (MTOE)-authorized shop sets, storage bins, and a metal cabinet with compartments, the CASL upload began. After uploading the CASL, we transferred the preconfigured shop sets to a designated MILVAN. Once in the MILVAN, the shop sets were mounted on pallets, blocked and braced for the long journey ahead.

Just as the CASL upload was completed, the 1st Infantry Division (Mechanized) got more MILVANS for the remaining ASL. This presented a new problem. All available shop sets had been used for the CASL upload. Through discussion with the support operations officer and the battalion commander, I drew up plans for using the new MILVANS. Executing these plans was labor-intensive and time-consuming. The division support command (DISCOM) commander approved the plans. Prisoners at the U.S. Army Correctional Activity (USACA) constructed the interiors of the MILVANS.

Prisoners Complete Job

With hammers in hand, the prisoners completed this Herculean task with great diligence. They built storage bins in these vans at a rate of five per day. This allowed the rest of the ASL to be uploaded, locations in the computer to be changed, and MILVANS to be painted in about three weeks.

Finally, after three weeks of nonstop work, the soldiers locked

and sealed 100 MILVANS and began transport, along with the 20 stake and platform (S&P) trailers loaded with major assemblies, to the railhead. With coordination and teamwork, they completed the entire task in 30 days. The soldiers could now concentrate on survivability training. While training, the unprocessed receipts of Class IX continued to stack up in what was once the 701st MSB Class IX warehouse.

Our equipment arrived at the port of Dhahran on 23 December. We staged our equipment and ensured 100 percent accountability before convoying to the desert. Christmas day was spent convoying from the port to our first location, Tactical Assembly Area (TAA) Roosevelt. By doctrine, the main Class IX SSA will be 50 percent mobile in a single lift. However, the number of MILVANS used to house the ASL made this impossible. With only 23 five-ton tractors in the supply platoon, ASL transport was tiring and time-consuming. Using all available warehouse assets, along with B Company, 701st MSB, the division transportation company, many trips were made to the port to retrieve the ASL. Within three days after the initial occupation, all MILVANS and S&Ps were in place.

100 Per Cent Inventory

The arrangement of the MILVANS at Roosevelt was more administrative than tactical. This location was a temporary support base until the rest of the division arrived. To ensure timely and accurate support when the division arrived, we had to conduct a 100 percent inventory of the ASL. The soldiers dreaded opening the vans for fear that the contents would be in total disarray after the long journey. However, the makeshift shelving and shop sets all arrived intact. Because mission requirements for other sections within C Company, 701st MSB, were few due to the lack of customers, some soldiers were tasked to assist the supply platoon with inventory.

Customer support was slow early on, which provided ample opportunity to process receipts. This opportunity was short-lived, however. The division had closed and the requests for Class IX were never-ending. Daily transportation runs to Log Base Alpha, 20 to 30 kilometers to our south, picked up Class IX. Regardless of quantity, all daily receipts had to be processed within 24 hours. This time constraint forced night operations. Initially, we used night vision goggles to process receipts in an attempt to maintain light discipline. This proved futile. To expedite receipt processing time, we chose to ignore light discipline procedures. Lacking floodlights, the soldiers used the headlights of their vehicles to process parts. It was noted that the parts being received were from requests submitted at Fort Riley, KS. As of late January 1991, we had yet to receive Class IX requested from Saudi Arabia.

Hostilities

When hostilities erupted with the air campaign on 17 January, a tailored Class IX list was identified to deploy with a forward logistics element (FLE). This list was minimal, consisting of filter elements for tanks, generators and an assortment of batteries. The C Company shop officer ran the Class IX operation for this FLE. Requests were submitted to the FLE and then hand-carried back to the division support area (DSA) daily. These requests were then processed at the main Class IX operation. As receipts were processed, the transportation section pushed the Class IX forward to the FLE.

This FLE was only temporary, as the rest of the 701st MSB would soon move to TAA Junction City, approximately 30 kilometers north of Log Base Echo. During the move to TAA Junction City, B Company was fully occupied moving other elements of the division. This forced the supply platoon to move nearly 100 percent of the warehouse. This

consumed seven days of processing time because soldiers who were moving the warehouse were also warehouse operators. The cross-country move to Junction City damaged many of the plywood locations built into the MILVANS. Reconstruction and location maintenance also increased processing time.

Zero Balances

Filling zero balances caused a warehousing problem. The stockage spaces available in the MILVAN warehouse were based upon the Class IX on hand during upload. When these receipts were processed, those with due-outs were issued, but those with no due-outs had no location for stockage. These "NO LOCS" were put back into labeled multipack boxes and then put back into the SeaLand van. Trying to pull material release orders from this type of location system was cumbersome. Base operations at TAA Junction City continued throughout the ground offensive. Another FLE was sent forward the day the ground attack began. This FLE Class IX contingent, when compared to the first FLE, was tailored more to the mission's needs. Supply platoon equipment and personnel were sent with this FLE. This action severely stressed base operations productivity.

The warehouse soldiers remaining at the operation in Junction City had to retrieve Class IX from corps at Log Base Echo, process the receipts, and push these receipts forward to the FLE in Iraq. The soldiers would then return to base operations to start the process again. This consumed approximately three man days per person. Because of this, the Class IX operation was augmented with organizational mechanics, direct support mechanics, and band members to maintain a 24-hour turnaround on received parts.

Surprise

Surprisingly, 24-hour operations in this harsh environment did not create maintenance problems for the warehouse. Directly following stand-to, soldiers conducted preventive maintenance checks and services (PMCSs) on all equipment. The organizational mechanics were present to help the operators and to provide technical assistance on the critical MHE assets. After daily close outs, the Standard Army Retail Supply System (SARSS) box was cleaned with pressurized air. The SARSS filters were cleaned with warm water and dried.

The 701st MSB continued to support the 1st Infantry Division (Mechanized) throughout the ground offensive and the redeployment phase. Through coordination with support operations, DMMC and customer units, Class IX operations during *Operation Desert Shield/Storm* proved successful. Though many stumbling blocks were encountered, the application of the sustainment imperatives — anticipation, integration, continuity, responsiveness and improvisation — kept us from falling.

This article has provided an overview of Class IX operations in a heavy mechanized infantry division during *Operation Desert Shield/Storm*. Although not spelled out in this article, note the following actions that gave an advantage to my operation:

- As a Class IX platoon leader, if at all possible, cross-train your soldiers. All soldiers assigned to the Class IX supply platoon must be able to receive, store and issue repair parts. They must also be able to retrieve Class IX from corps and push these parts forward.
- As a Class IX platoon leader, your unit must ensure the receipt, storage and issue of

Class IX. Do not let yourself become bogged down in the problems of the supply system. When customer units are having problems with the supply system, direct them to the DMMC Class IX managers.

- Be sure to keep lines of communication open between your SSA, support operations and the DMMC.
- Do not get caught short when it comes time to deploy. Although the 1st Infantry Division (Mechanized) has an ASL available in prepositioning of materiel configured to unit sets (POMCUS) in Europe, the continental U.S. ASL had no mobile storage capability. I was provided time to evaluate the requirements to move the ASL without POMCUS assets. Without this time, the main Class IX SSA may not have met its deployment timeline. The bottom line: plan for possible contingency missions. During this planning, determine the requirements for mission success. Hopefully, you will not be required to execute these plans but should the need arise, you will be that much ahead.

Although these lessons learned may seem like common sense, they may assist future Class IX platoon leaders facing the same challenging scenario.



CPT Russell D. Cavin is a former Infantry soldier and received his commission through Officer Candidate School. He is a graduate of the Quartermaster Officer Basic and Advanced Courses, and Airborne School. His previous assignments include Supply Platoon Leader, Company Executive Officer, Rear Battle Captain, Class IX Platoon Leader, and Battalion S4, 1st Infantry Division (Mechanized). He is currently attending the Petroleum and Water Officers Course.

Operational Readiness Float

LT Jamie L. Kandarian

Has the word "gray" ever entered your mind when reading an Army regulation (AR)? Based on my experience as a lieutenant, there is no better objective to describe ARs. If you find yourself as a Class IX (repair parts) supply support activities (SSA) stock record officer (SRO), you will probably experience the grayness in AR 710-2-2 (Supply Support Activity Supply System Manual Procedures) when accounting for an operational readiness float (ORF) fleet. A problem most SROs experience is not understanding the critical function of the maintenance float program.

ORF is a maintenance program designed to improve a supported customer's equipment during peacetime. The ORF fleet consists of additional combat equipment authorized for stockage at a Class IX SSA. The quantity, however, is a percentage of yearly direct support (DS) maintenance work order requests. For instance, if the DS maintenance facility repaired 2,000 high mobility multipurpose wheeled vehicles (HMMWVs) in the last year, the ORF program might authorize a quantity of HMMWVs to remain at the SSA. The purpose here is to have excess stockage on high-repair, demanded items. The DS maintenance control officer (MCO) or shop officer uses this program in exchange for repairing an item.

Float Transaction

The MCO will offer a like float item to a customer after researching all repair avenues such as part status, man-hours and budgetary requirements. If the MCO determines the equipment will not meet readiness standards in a timely manner, he contacts the SRO of the possible float transaction. When all agree, the customer will turn in the item to the SRO and request the like item also. In our example, the

customer would turn in and request a HMMWV. The SRO then issues a HMMWV from the ORF fleet. Finally, the DS maintenance unit repairs its original HMMWV and returns the vehicle to the SSA to reconstitute the fleet.

So, would you consider this a maintenance program or a supply program? What most do not realize is that the MCO, by regulation, only decides to float an item. The SRO handles the actual transaction. Not one, but many problems arise as a result. Why does the SRO control the ORF fleet? Does this mean that the SRO also pulls operator and organizational preventive maintenance checks and services (PMCS)? Who should pay for repairs on the unserviceable equipment? Because the regulations are only a guide and do not give specific instructions about ORF, these and many other questions surface.

Typical Situation

As the MCO for the 503d Maintenance Company (FD/DS) with the 1st Corps Support Command (COSCOM) Fort Bragg, NC, my unit maintained an average backlog of 225 work orders. We averaged 225 pieces of equipment awaiting repairs at the DS maintenance facility. Like the Standard Army Retail Supply System (SARSS), the maintenance units have a software system called the Standard Army Maintenance System (SAMS). It aids the MCO with managing the maintenance mission. Daily, the system clerks generated certain reports that identified float candidates. As the MCO, I monitored this report and decided whether or not to float an item. The float program is a critical asset to the combat support units. The 503d supported the XVIII Field Artillery Regiment and its many M198 howitzers. It was obvious that the readi-

ness of these combat systems was critical to their mission.

In the year I was an MCO, my artillery section completed more than 1,300 work orders on the M198 howitzers. Of those, only three met the installation float requirements. (At Fort Bragg, if the repair time exceeded 15 days on combat systems, I offered a float item to the customer. This time allowed for the supply system to generate repair parts status.) On one occasion, the field artillery battalion returned from an Army training and evaluation program (ARTEP) with an M198 howitzer that was airdropped and did not land correctly. When the unit brought the equipment to the 503d, they believed the repairs would exceed the 15-day requirement. However, before I authorized a float transaction, I ordered all repair parts and researched estimated ship dates. At that time, I too realized that the work order would exceed the time standards. Finally, I contacted the SRO and we were on our way to completing a float transaction.

ORF Supply Procedures

As an SRO, AR 710-2-2 requires that you maintain a separate stock record account (SRA) for every ORF end item on hand, with both serviceable and unserviceable sections. Once we decided to float, the exchange of the unserviceable end item for the serviceable ORF asset became a simultaneous transaction. Next, the customer submitted two DA Forms 2765-1 (Request for Issue or Turn-In) for turning in an unserviceable item and requesting a like item. The customer then delivered both forms along with all equipment transfer records to the MCO. The MCO forwarded all information to the SRO for posting to the stock record account. Finally, the SRO issued the like item to the customer.

Problems

You probably noted that the float transaction involves many different parties that include the customer, the MCO and the Class IX SRO, to name a few. In addition, everyone in the chain of command up to the commanding general concerns themselves with operational readiness rates, especially on combat systems. Often, this places additional stress on the personnel involved with the float program. The command, generally, wants to report a high state of readiness and sometimes depends on the float program to solve other maintenance issues. This includes organizational maintenance problems or zero balance repair parts. The float program DOES NOT support either of these issues.

When the command stresses these issues, the ORF yard becomes a cannibalization yard. The time it takes to coordinate the float transaction often causes problems as well. The unit status report (USR) explains a unit's operational readiness rate over a 30-day cycle. If a unit requested DS maintenance halfway through the reporting cycle and the MCO waited 15 days before offering a float, the unit might not meet the readiness standards for that reporting period. Also, the ORF program is expensive. The fleet, as stated in Maintenance Update 13, is a major Army command (MACOM) asset; yet no Department of Defense Activity Address Codes (DODAACs) or unit identification codes (UICs) exist to main-

tain it. With the focus on the stock funded depot level reparables (SFDLR) initiatives, the DS maintenance facility absorbs the costs associated with the fleet's upkeep. Finally, the objective is to improve readiness. However, based on the current ARs, it becomes a detailed supply action. Although there are solutions to all of these problems, the first step is to make it easier for the program to succeed.

Solution

Taking a broad glance at the float program suggests that the program increases operational readiness. The success of this program, however, depends truly on the readiness of the float fleet. As mentioned earlier, if the SRO signs for the equipment, does this mean that his 76/92 military occupational specialty (MOS) series personnel will maintain the equipment? Based on my experiences at Fort Bragg, the technical supply platoon was busy 24 hours a day, both receiving and issuing repair parts. We decided on a solution which passed the common sense test, yet did not follow AR 710-2-2 exactly. As the MCO, I signed for the ORF fleet directly from the Installation Supply Support Division (ISSD). This action made me the SRO for all purposes regarding the ORF fleet. In turn, I hand-receipted the equipment to a 63 MOS series noncommissioned officer (NCO). It was the NCO's responsibility to ensure that the fleet was always operationally ready. Thus,

the float program was a success.

Today's budget requirements are making it harder for commanders to continue high states of readiness. The SFDLR program is changing the way the maintenance world does business. In the past, as soon as motor pools noted DS deadlining deficiencies, they would job order the equipment to the maintenance facility. Commanders now must prioritize maintenance requirements based on their current budgets. The ORF program will play a key role in unit readiness. If used properly, the ORF is a valuable program. It is important to note that no matter what job you hold in which branch, this program is beneficial to you. Finally, with the addition of Functional Area 90 and the future focused on a combined logistics branch, you might find yourself managing an ORF fleet. The better you manage this program, the more you will improve support to the customers. Ultimately, our success depends on true customer satisfaction. With the ORF program, we can reduce equipment downtime and cost while continuing high readiness standards.



LT Jamie L. Kandarian is a graduate of the University of Richmond, Virginia. She is also a graduate of the Ordnance Officer Basic, Quartermaster Advanced, and Airborne Courses. Previously, she served as a Mechanical Maintenance Officer, Maintenance Platoon Leader, and Maintenance Control Officer with the 46th Support Group, Fort Bragg, North Carolina.

Quartermasters Leading the Train

Dr. Steven E. Anders

Lieutenant Colonel Richard Napoleon Batchelder was Chief Quartermaster of 2d Corps, Army of the Potomac under General Meade. On October 10, 1863, he conducted a flank march with 5,000 six-mule wagons in northern Virginia. Continuous day and night marches through hilly wilderness along narrow dirt roads, were threatened the whole way by Mosby's guerillas. Batchelder took charge personally, armed his teamsters and led the way. Some

men and horses were killed. But he brought the train through without losing a single wagon. For his courage and decisiveness, Batchelder was awarded the Congressional Medal of Honor—and was later appointed Quartermaster General of the Army.

Dr. Steven E. Anders is the Quartermaster Corps Historian, U.S. Army Quartermaster Center and School, Fort Lee, Virginia.

Aerial Bulk Fuel Delivery System

CPT Rick F. Gould CPT Jeff Gabbert

ALERT, ALERT . . . The Democratic government of Malta is attempting to suppress a coup attempt led by a radical left-wing party and backed by portions of the Maltese military, to include the commander of the Maltese Mechanized Forces. The legitimate Maltese government has requested that the United States intervene on its behalf. The United States agrees and sends in the 82d Airborne Division, XVIII Airborne Corps. The division jumps in. After heavy resistance, they secure the airfield and begin to establish defensive positions. Air Force reconnaissance aircraft report sightings of T80 tanks and some BMP reconnaissance vehicles. The XVIII Airborne Corps Commander calls for the 24th Infantry Division Immediate Ready Company (IRC). This company consists of M1A1C tanks and M2 Bradley fighting vehicles with tube launched, optically tracked, wire guided (TOW) missiles. This company stands ready to deploy anywhere in the world, for just this type of mission.

The IRC lands on Malta, receives an operations order and a terrain orientation. The company is task-organized into a task force and conducts a rehearsal with the associated units from the 82d Airborne Division. Intelligence teams have determined the location of the mechanized unit, and the task force receives the mission to neutralize this threat. As the logistical planner for this mission, you determine that the IRC will need to refuel twice during the operation. You also find out that the fuel on the airfield is contaminated and cannot be used. Luckily, as any good logistician would, you planned ahead and requested the Air Force deliver 6,000 gallons of fuel on a C141 equipped with the Aerial Bulk Fuel Delivery System (ABFDS). This planning will provide the IRC the fuel to sustain the force and accomplish the mission.

The ABFDS was first used in Vietnam to transport fuel into remote areas because of road conditions and fluctuating enemy frontlines. The ABFDS was designed to bring bulk quantities of fuel with a minimum turnaround time by air. The first system designed was the C123 ABFDS which consisted of one, 2,000-gallon, rubber-coated tank; one pumping unit; and special restraining harness and straps to stabilize movement in the aircraft. Also included were all hoses required to operate the system in almost any refueling situation. While the C123 ABFDS was very successful, the limited load capability of the C123 aircraft was a problem. To provide larger loads, the C130 aircraft was selected and the C130 ABFDS system was designed.

In September 1966, the first C130 ABFDS was used to transport fuel in the delta region of Vietnam. It was very successful because of the large payload which the system could carry with turnaround time cut to a minimum. The C130 consists of two, 3,000-gallon,

rubber-coated tanks; two pumping modules; and special restraining harness and straps. The C130 ABFDS continues in use for a wide variety of missions and has proven extremely reliable.

The success of the ABFDS has expanded to using the system in a C141 aircraft (three, 3,000-gallon tanks; one pumping module) for high volume requirements as well as long distance transport from the continental United States to Greenland. It is also possible to configure a C5A Galaxy with 10, 3,000-gallon tanks and 2 pump modules.

Although proven successful, the ABFDS was restricted to delivering fuel to bulk storage tanks. In 1980, the ABFDS became the Alternate Capability Equipment (ACE) package when equipped with a filter/separator and hose rack. The addition of the filter/separator allows tactical aircraft to be serviced by the ABFDS/ACE package.

Today, the ABFDS and ABFDS/ACE packages fulfill a vital role satisfying ground and air mobility requirements in exercises and real-world situations. These pack-

ages are important to all of us for they provide a challenge for today's Logistics Warrior in planning sustainment operations around the world.



CPT Rick F. Gould has a bachelor of arts degree in business administration from the University of Montana where he was also the Distinguished Military Graduate. He is also a graduate of the Quartermaster Officer Basic and Advanced Courses. He has served previously as Platoon Leader during Operation Desert Shield/Storm, in the Support Squadron, 3d Armored Cavalry Regiment. He is currently assigned to the Division Support Command, Fort Riley, Kansas.

CPT Jeff Gabbert is a graduate of New Mexico State University where he was a Distinguished Military Graduate. He holds a master's degree in management from Webster University, St. Louis, Missouri. He is also a graduate of the Quartermaster Officer Basic and Advanced Courses and Combined Arms and Services Staff School. He has served previously as a Petroleum Platoon Leader and Squadron S4, 3d Armored Cavalry Regiment. He is currently a Division Support Command Plans Officer assigned to the 24th Infantry Division, Fort Stewart, Georgia.

Minimizing Death and Destruction in Tactical Convoys

LT Harold Jones

Just say the words "tactical convoy" to yourself. What kind of images dance across your mind? A small, well-spaced convoy traveling at about 20 miles per hour over a dark stretch of twisting, mountainous road? A convoy of 5-ton cargoes jamming across the open desert in darkness with all the drivers wearing night vision goggles? Or maybe on a more personal level . . . an ambush has just been sprung on your convoy, and death and destruction is everywhere?

Regardless of your mental picture, tactical convoys are dangerous by nature. Nevertheless, they are absolutely necessary for resupplying soldiers in combat. As a transportation platoon leader during the Persian Gulf war, I witnessed firsthand the need for increased emphasis on safety in tactical convoys. We, as logisticians, must make convoys safer to protect our troops and to successfully fix, fuel and sustain the force.

Enemy Actions

With any convoy, whether administrative or tactical, we must always consider driver error, mechanical failures and the environment. However, with tactical convoys we must also consider enemy actions. In order of significance, we as first-line supervisors must minimize the threat from enemy intervention, human error and environmental effects with proactive leadership and risk management.

Enemy Intervention

How can we possibly minimize the risk from enemy actions? We can improve survivability and safety of tactical convoys by taking full advantage of darkness, security reinforcement, special equipment and proper convoy procedures. In any case, mission, enemy, terrain,

troops and time available (METT-T) will govern tactical convoy operations.

During the Vietnam war, convoys could not operate at night because of sniper and ambush activity. However, we anticipate that most tactical convoys in future conflicts will operate during darkness using night vision goggles (NVGs) and satellite-aided navigational aides. Indeed, both were used extensively in the Persian Gulf, but I would not consider them battle-proven yet because of the limited capability of the Iraqi forces to inflict damage upon our supply convoys.

Night Vision

Often, we rely too much on the use of NVGs. For example, the goggles can be disabled by flashes of light from gunfire and other bright lights. Also, drivers tend to forget that they have limited depth perception and field of vision and that their visual acuity is lessened when wearing NVGs. A driver with 20/20 vision will at best have 20/40 vision with the PVS-7 goggle and 20/50 with the PVS-5 model. All too often, drivers will simply out-drive the capability of their NVGs by speeding. There are documented cases where drivers wearing the goggles were speeding across open desert during *Operation Desert Shield/Storm* and at the National Training Center (NTC) at Fort Irwin, CA, and simply drove into ditches or off cliffs.

Also, convoy commanders overly rely upon navigational devices. Often, the map will be buried somewhere in the back of the vehicle, and the convoy commander will place complete trust in a little hand-held computer. There is no reason that a tactical convoy should become crippled because of a blown fuse in its power cord. Other times, key points can be input incorrectly. Unless someone is follow-

ing along on a map, the entire convoy may end up in the middle of a minefield or back where it started.

Regardless of the "gee-whiz" technology used, we must follow good tactical convoy procedures to counter the threat of enemy action. The convoy commander must conduct a detailed preconvoy mission/safety briefing as detailed in FM 55-30 (Army Motor Transport Units and Operations), Appendix M. Each driver must be briefed on actions upon contact, emergency procedures, convoy speeds, intervals, and command and control. Each vehicle must have a strip map with the start point (SP), release point (RP), critical points (CPs), rest halts, the route, and mileage between key points.

The convoy commander should conduct a route reconnaissance if at all possible. The reconnaissance needs to be done at the same time of day the convoy will move, in order to recognize potential ambush sites, choke points and terrain features and to sparingly mark the trail, if needed to eliminate points of confusion. In addition, the convoy **must** have radio communication between the lead and trail vehicle, as a minimum.

Convoy Commanders

The convoy commander must know the exact number and type of vehicles in the convoy, to include who is in each vehicle. Often, when a forward support battalion (FSB) or main support battalion (MSB) moves to a new operating area, the S2/S3 will direct an echeloned movement of the battalion by slice to minimize the possibility of all the food, fuel or ammunition being destroyed in one convoy. This presents a real problem to the convoy commander because he now has a problem identifying exactly who belongs in his convoy. He may have part of a

maintenance company, a few fuel tankers, and several 5-ton cargoes carrying rations. The problem of command and control is greatly increased.

Another problem is that each company has its own standing operating procedures (SOPs) for handling ambush actions, maintenance problems and emergencies while in convoy. When assets from the battalion are mixed and matched, the convoy commander must pay extra attention to these areas when briefing the mission. Also, the soldiers must know the chain of command within the convoy and where each key player will typically be found.

Use of security forces within tactical convoys will also greatly enhance their survivability. Ideally, the military police (MP) platoon is tasked to provide convoy security. However, this rarely happens because of limited MP assets. Nonetheless, the commander must ensure that security is set up at all rest halts and that field artillery support is coordinated for known target reference points along the route.

Security

The convoy must stay within its movement window and follow the designated route. The convoy should routinely check in with higher headquarters to document its progress, but upon reaching the objective as a minimum. Each convoy should have air guards to protect the convoy from aerial attack, regardless of cold weather and limited visibility. Each driver must know passive and active defense measures in case of attack.

In addition, the convoy commander should halt the convoy near the release point and set up security for the convoy. The commander should move into the operating area alone to link up with the point of contact (POC) and to verify that the operating area is not overrun with enemy forces or booby-trapped before bringing in the convoy. At the NTC, an entire convoy was deci-

mated when lured into an enemy ambush in a box canyon near its release point during a night movement. The convoy commander saw a soldier up on a hill near the release point waving in the convoy. Without verifying friend or foe, the commander sent his convoy into the trap.

Human Error

What is human error? Human error manifests itself in many different forms to include speeding, following too closely in convoy, falling asleep behind the wheel, overlooking a key deficiency during preventative maintenance checks and services (PMCS), having overconfidence in one's abilities, or any mistake that results in an accident or injury. The most common causes of accidents in convoys are speeding and following too closely.

Human error is undoubtedly the biggest single killer in administrative convoys, but tactical convoys are not immune either. Human error occurs after sleep deprivation, inadequate driver training, poor command and control, and environmental effects. The convoy commander must repeatedly emphasize safety, ensure that the drivers receive adequate rest, and minimize the effects of combat stress.

Human error also shows itself in other ways. Many drivers still refuse to wear their safety belts and Kevlar helmets in tactical convoys. Both are definite lifesavers, as proven during *Operation Desert Shield/Storm* and at the NTC. Although many tactical accidents occurred in Southwest Asia, the number of serious injuries and deaths that resulted were significantly lower compared to past experiences. This can be directly linked to command emphasis placed on the drivers to always buckle up and properly wear their helmets.

Even so, we need to pay greater attention to educating our soldiers on this issue. All soldiers know they are required to buckle up when in their own vehicles or in

administrative convoys. However, when it comes to tactical convoys, the soldiers have their own ideas about saving their skin. Ask just about any soldier if he buckles up when in a tactical convoy, and he will probably say, "No way! What if the convoy was attacked? It would take too long to get out of the cab."

This is sheer nonsense! With a little practice, a soldier can unfasten the seat belt quicker than the soldier can get the vehicle stopped and out of gear. In addition, the risk of not wearing the seat belt, far outweighs the risk of wearing it. We, as first-line leaders and convoy commanders, must work harder to reeducate our soldiers.

The simple matter of requiring soldiers to wear the Kevlar helmet requires no discussion. There is no doubt that the Kevlar helmet protects a soldier's head in accidents and in off-road driving. Numerous times, I was grateful for wearing mine during the Persian Gulf war when driving across rutted roads and across country. Quite often, my driver and I whacked our skulls against the side windows and roof of our vehicle while in convoy.

Sleep Requirements

Sleep deprivation also plays a key role in the frequency and seriousness of human errors. Research has shown that six to eight hours of sleep per night will maintain mental task performance indefinitely. However, in combat this will prove to be impractical in most cases because of mission load and shortage of personnel and assets. Therefore, it is important to note that three to four hours of sleep per night will maintain mental task performance, but for only five to six days.

For long-term operations, four to five hours of sleep is best, but after six days the accumulated sleep loss will equal 48 hours without sleep. For this reason, performance degradation and human errors occur. As evidenced during tactical operations, sleep loss will appear as drivers forgetting to refuel their vehicles

before a convoy, overlooking key PMCS checks such as low oil and tire pressures, and allowing garbage to jam up underneath brake pedals.

Biggest Challenge

For convoy commanders, perhaps the biggest challenge while in convoy is keeping drivers alert, maintaining the proper intervals, and maintaining the proper speed for the conditions present. These three challenges pose a never-ending struggle between the convoy commander and the convoy during all movements.

The keys to overcoming these obstacles are to place a well-trusted senior noncommissioned officer (NCO) in the pace vehicle, place the slowest and heaviest vehicles directly behind the pace vehicle, and to teach soldiers in the convoy to dress their interval off the last vehicle in the convoy. The convoy commander and assistant drivers are the key to keeping the drivers alert by continually monitoring and communicating with them. Finally, leadership and senior NCOs must consistently and routinely make on-the-spot corrections. With these key areas under control, the number and consequences of human errors will be greatly reduced.

How does the environment effect safety in tactical convoys? Tactical convoys are often operated over dusty roads during low visibility in unfamiliar territory at the juncture of four map sheets in the heat of summer. It is our responsibility to ensure that our soldiers have trained under similar circumstances to minimize the stress of combat.

The convoy commander has little or no control over the environment. Therefore, the only way to improve safety in this arena is to train as we will fight and to continually monitor the well-being of the drivers and vehicles. Environmental effects upon a convoy can be softened, but rarely done away with. First-line leaders must emphasize convoy safety, water consumption, and vehicle maintenance to combat environmental effects.

As Quartermasters, we will not typically have many soldiers with the military occupational specialty (MOS) of 88M (Motor Transport Operator) in our units. For this reason, our soldiers must be properly licensed and trained as truck drivers to drive in near zero-visibility situations relying only upon the blackout drive markers 60 feet in front of them or using the NVGs. They must be trained to drive in snow, ice, fog and blowing dust. The more realistic the training, the more likely they will survive combat. As logisticians, we must accomplish the mission regardless the weather and with minimal assets.

Also, the environment will degrade vehicle performance by clogging filters, sealing pressure relief valves on the differentials, and destroying sensitive components. Proper PMCS procedures will help with these problems. However, the stress of battle, sleep deprivation,

and METT-T may interfere with mission accomplishment. Therefore, during the tactical convoys, we have unexpected breakdowns at the most inconvenient times.

Risk Management

Before conducting any exercise involving soldiers and equipment, we should always do a risk analysis on the proposed plan. Tactical convoys are no exception to this rule. Risk analysis can be used as a management tool to identify areas of concern and to assist in determining if the plan can be made safer.

When performing risk management on a proposed convoy, the following should be kept in mind: no unnecessary risk should ever be accepted, risk decisions must be made at the appropriate level, and the benefits of taking a risk must outweigh the possible cost of the risk. As a minimum, a risk analysis should include the following elements:

PLANNING

| RISK VALUE | | | |
|----------------------------------|------------------|----------|---------|
| GUIDANCE | PREPARATORY TIME | | |
| | OPTIMUM | ADEQUATE | MINIMAL |
| FRAGMENTARY ORDER (FRAGO) | 3 | 4 | 5 |
| OPERATION ORDER (OPOR) | 2 | 3 | 4 |
| PLAN/LETTER OF INSTRUCTION (LOI) | 1 | 2 | 3 |

Example: An OPORD received 24 hours before convoy start time. Risk factor would be assessed as 2

MISSION CONTROL

| RISK VALUE | | | |
|-------------------|-------------------------------|--------------|----------------|
| TASK ORGANIZATION | TRAINING EVENT | | |
| | SUPPORT NONTACTICAL/ GARRISON | DAY TACTICAL | NIGHT TACTICAL |
| OPCON | 3 | 4 | 5 |
| ATTACHED | 2 | 3 | 4 |
| ORGANIC | 1 | 2 | 3 |

Example: A night tactical convoy of fuel tankers organic to unit. Risk factor would be assessed as 3.

SOLDIER ENDURANCE

| RISK VALUE | | | |
|---------------------------|---------------------|----------|---------|
| ENVIRONMENTAL PREPARATION | SOLDIER PREPARATION | | |
| | OPTIMUM | ADEQUATE | MINIMAL |
| NONACCLIMATED | 3 | 4 | 5 |
| PARTIALLY ACCLIMATED | 2 | 3 | 4 |
| ACCLIMATED | 1 | 2 | 3 |

Example: Drivers that have been in theater for several weeks are notified 12 hours prior to movement. Risk factor would be accessed as 2.

SOLDIER SELECTION

| RISK VALUE | | | |
|------------|--------------------|---------------|-----------|
| TASK | SOLDIER EXPERIENCE | | |
| | HIGHLY QUALIFIED | MOS QUALIFIED | UNTRAINED |
| COMPLEX | 3 | 4 | 5 |
| ROUTINE | 2 | 3 | 4 |
| SIMPLE | 1 | 2 | 3 |

Example: New 88M drivers straight out of AIT tasked with a night convoy in drizzling rain. Risk factor would be accessed as 4.

WEATHER

| RISK VALUE | | | |
|-----------------------|---------------------|--------------------|---------------------|
| TEMPERATURE Degrees F | VISIBILITY/MOISTURE | | |
| | CLEAR/DRY | FOG/HUMID/ DRIZZLE | RAIN/SNOW/ ICE/DUST |
| <31 or >80 | 3 | 4 | 5 |
| 32 to 59 | 2 | 3 | 4 |
| 60 to 79 | 1 | 2 | 3 |

Example: Weather for a convoy is expected to be rainy with a temperature of 55 degrees F. Risk factor would be accessed as 4.

TERRAIN

| RISK VALUE | | | |
|------------------------|----------------|-----------|---------------------|
| TYPE OF TERRAIN | TRAFFICABILITY | | |
| | IMPROVED | SECONDARY | TRAIL/CROSS COUNTRY |
| MOUNTAIN/DESERT/JUNGLE | 3 | 4 | 5 |
| HILLS | 2 | 3 | 4 |
| FLAT/ROLLING | 1 | 2 | 3 |

Example: A convoy that is projected to travel on secondary roads in mountainous Bosnia. Risk factor would be accessed as 4.

SUSTAINABILITY

| RISK VALUE | | | |
|------------------------------|--------------|---------|--------------------|
| PERCENTAGE PERSONNEL FILL | VEHICLE TYPE | | |
| | WHEELED | TRACKED | SPECIAL PURPOSE |
| 0 TO 65% | 4 | 5 | 5 |
| 66 TO 79% | 2 | 4 | 4 |
| 80 TO 100% | 1 | 2 | 2 |

Note: Undermanned sections will often attempt to achieve the same standard as fully manned sections, resulting in dangerous situations. An example of special purpose equipment is material handling equipment (MHE) or rough terrain (RT) forklifts.

After assessing all the risks, total the values and compare to the following scale:

0 to 12 13 to 23 24 to 35
 LOW RISK CAUTION HIGH RISK

Convoys with a total of 0 to 12 are low risk. Convoys with a total of 13 to 23 warrant complete unit command involvement, since one or two of the areas may be unjustly represented. Perhaps these areas will place the convoy at severe risk, even though not shown by the scale comparison. Convoys with a total of 24 to 35 require coordination with higher command to determine if the risk can be reduced in any way with additional assets or augmentation. Note that when two or more areas are assigned a risk factor of 5, the overall rating should be considered high risk regardless of the total score.

Ideally, a commander would always have this matrix on hand,

but such is not always the case. This does not negate the need for risk management, however. Often, we subconsciously perform this process in our minds, weighing and troubleshooting the critical decisions that we make. Regardless, whether we use the matrix or mentally review the possible adverse conditions, we must always work to minimize the risks to our mission.

Variables

There are a multitude of variables effecting safety in tactical convoys. However, as logisticians, we must take all necessary precautions to limit their impact. Tactical convoys can be made safer, but we need to think smarter and plan ahead for human error, environmental effects, and enemy threat. In general, METT-T will govern our tactical movements, but we as logisticians and convoy commanders must use doctrine, lessons learned, and common sense to our advan-

tage in minimizing the risks to our troops and to properly support the battle.

In closing, there is nothing magical about safely operating a tactical convoy. For the most part, we have little control over the enemy's intentions or the environment. However, we can influence the mission's success with good convoy procedures, realistic driver training, and by caring for the well-being of our soldiers. Finally, as with any military operation, we must balance our capabilities and the current situation to the mission's requirements using sound risk management to avoid death and destruction in our tactical convoys.



LT Harold Jones is a National Guard Officer. He is a graduate of the Transportation Officer Basic Course and the Quartermaster Officer Advanced Course. His previous assignments include Truck Platoon Leader and Company Executive Officer, Arizona National Guard.

Combat Equipment Group, Europe and the POMCUS Mission

CPT Luanne J. Sleger

As force reductions continue and the Army adjusts to a new worldwide mission, the concept of prepositioning of materiel configured to unit sets (POMCUS) will take on a more important role within the military. Logisticians everywhere will be involved with the POMCUS mission whether they are in Europe, Southwest Asia or in the continental U.S. (CONUS) preparing for a Return of Forces to Germany (REFORGER) exercise. Combat Equipment Group, Europe (CEGE) are the experts in storing and maintaining POMCUS ready for any contingency. As the Supply Officer for the 14th Combat Equipment Company (CEC) in Moenchengladbach, Germany, and the Headquarters Commander and S4 for Combat Equipment Battalion North (CEBN), I saw vast changes in U.S. Army, Europe (USAREUR) and witnessed CECE's mission changing. The basic mission of CECE to receive, configure, store, maintain and issue materiel has stayed the same, but



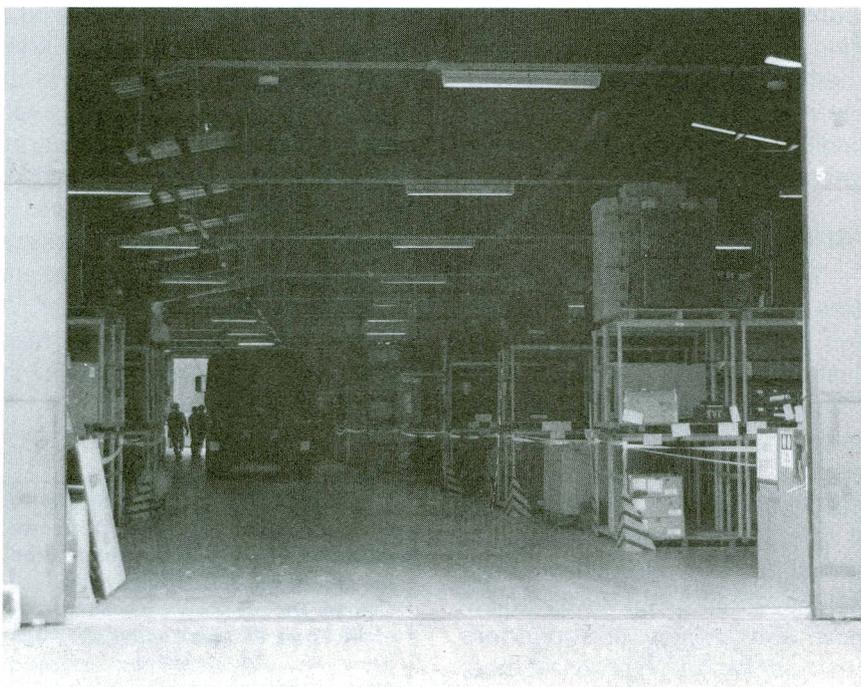
Vehicles leaving warehouse

the internal elements within these components are adapting.

What exactly are CECE and POMCUS? The U.S. Army CECE originally formed 1 April 1964 as

the 7th U.S. Army Combined Arms Maintenance Group. In May 1965 the group was redesignated as the USAREUR Augmentation Readiness Group. Finally, in October 1970, the group was given its current name. CECE is a major subordinate command of the 21st Theater Army Area Command. Information in this article is taken from the CECE Command Briefing.

CECE has four battalions located in two countries: East in Karlsruhe, Germany; West in Landstuhl, Germany; North in Grefrath, Germany; Northwest in Coevorden, the Netherlands; and the Group Headquarters in Mannheim, Germany. The operational battalions of CECE consist of Combat Equipment Companies or CECs for short. Each CEC is responsible for a number of individual POMCUS unit of issues (U/Is). Currently there are 15 CECs located



Nonmechanized warehouse

Photographs by CPT Luanne J. Sleger from REFORGER 1990

throughout Germany, Belgium and the Netherlands. CECE has a combination of military, Department of the Army (DA) civilians, and local national employees working under an agreement with the Dutch Ministry of Defense. As of FY92, the total military-civilian team of CECE was just over 4,200 personnel.

The POMCUS concept was the result of a 1967 Trilateral agreement that reduced the number of U.S. troops stationed overseas while maintaining quick combat readiness for the North Atlantic Treaty Organization (NATO). Units from CONUS are airlifted to Europe with minimal equipment. An advance party, with sufficient equipment operators, travels to the appropriate POMCUS site and draws the unit's equipment. This includes a unit basic load (UBL), of Class I (rations), Class III packaged (petroleum, oils and lubricants), and Class IX (repair parts) items. The advance party then travels to a marshalling area where it meets the main body and completes its preparation for combat. The unit's next move is to a corps tactical assembly area where it awaits tactical employment. The arrival of units at each CEC site is determined by the



Five-point brake test

Time-Phased Force Deployment Data List (TPFDDL). Configuring and storing units in "sets" (everything a unit will need for its tactical mission) results in this rapid issue. Average POMCUS unit draw times are as follows: Company-sized units - six hours; Armor, mechanized Infantry battalions, Cavalry squadrons and Signal battalions - nine hours; Field Artillery, Engineer, forward

support battalions, and Air Defense Battalions - 12 hours; main support battalions and hospitals - 22 hours.

Requirements for POMCUS are generated by the Commander in Chief (CINC) USAREUR and are reflected in theater war plans. The approval authority for these requirements rests with the DA. The DA transmits the approval via the POMCUS Authorization Document (PAD) to CINC USAREUR. The PAD contains the approved force structure in terms of standard requirement codes (SRCs), unit identification codes (UICs), and ultimately equipment authorizations. As a result of winning the Cold War, the CINC has developed new POMCUS "future" requirements.

Accountability for POMCUS equipment is maintained by a property book officer at each CEC on Supply Property Book System-Redesign (SPBS-R-ITDA). The authorizations for each of the UICs stored at a CEC come from the PAD. The functions of the property book officer (PBO) are those normally associated with a PBO, to include 100 percent inventory of all equipment yearly. Asset visibility of equipment stored at each CEC is maintained at the group level. Each CEC site



Local nationals at checkpoint

has a combination of outside storage and warehouse storage. CEGE's goal is to have all equipment stored inside Controlled Humidity Warehouses (CHWs). Equipment stored inside CHWs is preserved longer, thereby reducing the maintenance workload. In addition to warehouses, each CEC site has a maintenance facility for its maintenance mission. Instant combat readiness is only possible if POMCUS materiel is maintained in a ready-to-issue state. The CEGE Annual Maintenance Plan (AMP) is designed to ensure this readiness. Before any equipment is placed into storage, it is thoroughly inspected, repaired and preserved. Equipment in storage is maintained on a cyclic basis.

Cyclic maintenance is performed in accordance with TM 38-450. The cycle for equipment stored in CHWs is every four years. Equipment stored outside is rotated every two years. Each piece of equipment is activated, operated and inspected for deficiencies. The equipment is repaired if required, serviced and preserved before placing it back into storage. Additionally, certain items such as recoil mechanisms and brakes are ser-



Staging area

viced periodically while the equipment is in storage.

The CEGE Quality Assurance (QA) program is designed to ensure standards are met. This includes continuous checking of maintenance operations to meet combat readiness standards and inspections of supply operations to ensure 100 percent accountability. The QA staff executes a CEGE

unique inspection called a Site Review. This inspection is a comprehensive look at a CEC and it is similar to a (CMTC) rotation for a CEC.

A major test of POMCUS readiness is the Return of Forces to Germany (REFORGER) exercises. CEGE has been involved in consecutive REFORGERs during the past three years with a 99 percent rate of equipment fully operational when leaving the CEC site. REFORGERs are CEGE's most important training event, exercising the majority of CEGE's collective wartime tasks. REFORGER training goals include exercising command and control at the CEC, battalion and group headquarters levels; exercising 24-hour POMCUS issue procedures; testing equipment readiness and quick-fix procedures; and conducting simulated nuclear, biological, chemical (NBC) draws and decontamination operations.

The ultimate test of POMCUS readiness came to CEGE in Autumn 1990. CEGE shipped almost 60,000 pieces of equipment in support of *Operation Desert Shield/Storm*. Eighty-one percent of the POMCUS combat vehicles (M1A1s and M2/3 Bradley fighting vehicles) were sent



Convoy to marshalling area

to the Persian Gulf. Numerous after action reviews indicated that POMCUS materiel was highly reliable and ready for use.

In addition to CEGE's normal mission, CEGE continues to be involved in missions resulting from the changing environment in which we live and work. Some of these special missions include USAREUR Unit Reductions (UUR) which accepts retrograde materiel for POMCUS, theater reserve and CONUS; CINC Initiative Programs such as conversion of 8-inch howitzers to MLRS, and High Mobility Multi-purpose Wheeled Vehicles (HMMWVs) for Cavalry Scouts; Residual Fill Program to fill table of

organization and equipment/table of distribution and allowances (TOE/TDA) equipment shortages with POMCUS materiel; the Harmonization Program which authorizes the transfer of excess Treaty Limited Equipment (TLE) to NATO allies; Technical Assistance to Combat Equipment Group, Southwest Asia; and the latest mission - equipment support to Bosnia and Somalia.

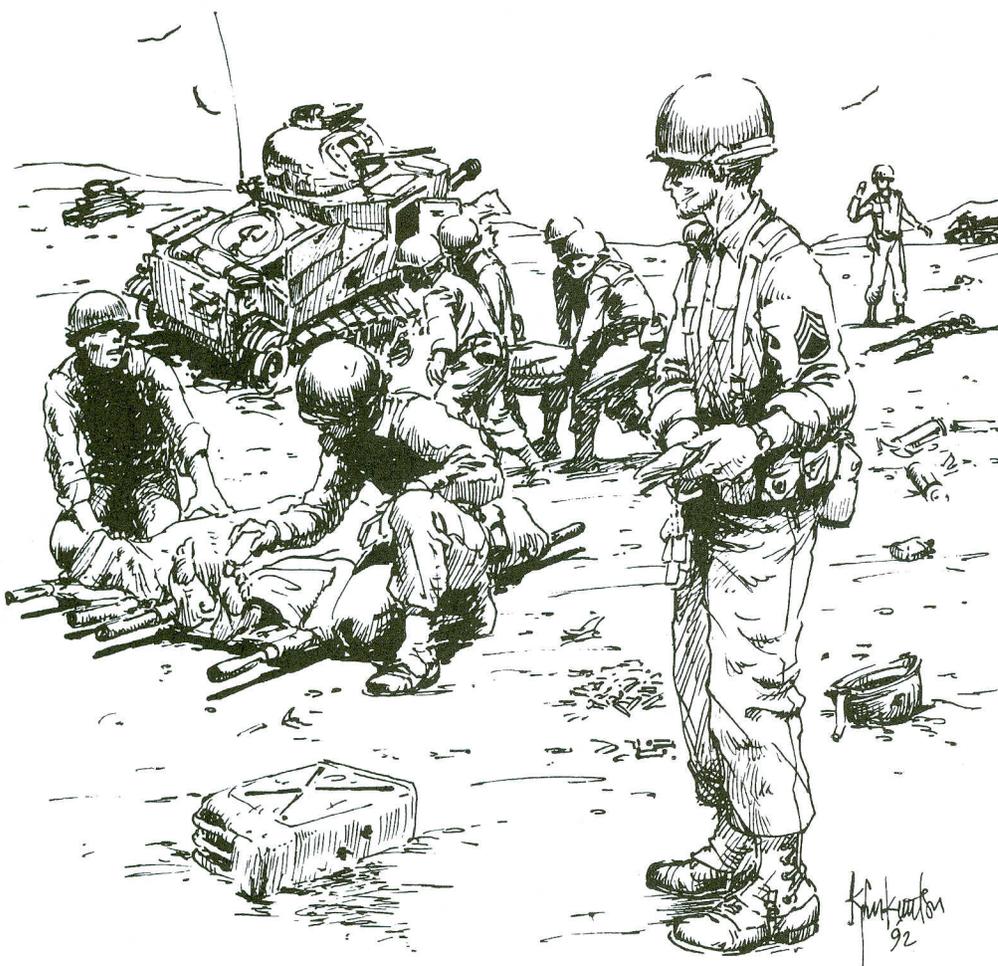
As we move into the future, we as logisticians can see that CEGE's primary mission to receive, configure, store, maintain and issue POMCUS materiel is increasing in importance. CEGE is the Army's leader in storing configured sets for rapid issue. As the Army

downsizes and changes to a mobile and rapid reaction force, experience has shown that CEGE will continue to be vital to our national interests.



CPT Luanne J. Sleger is a Distinguished Military Graduate of the University of Wisconsin, La Crosse, and has a master's degree in public administration from Troy State University. She is also a graduate of the Quartermaster Officer Basic and Advanced Courses, Standard Property Book System-Retail Course and Contracting Officer's Representatives Course. She has served as Battalion S1, Supply Officer, Battalion S4, and Headquarters Company Commander, Combat Equipment Battalion, North, Germany.

Quartermaster Support to Mounted Troops



Quartermaster Graves Registration Teams Recovering Remains, Kasserine Pass, February 1943

1st Cavalry Class IX Challenges

CPT Hector M. Moran

At 0730, a soldier from the customer assistance section goes to the division materiel management center (DMMC) for the daily start-up. The start-up diskettes are processed in the Standard Army Retail Supply System (SARSS) computer at the customer assistance section. After this process, materiel release orders (MROs) are sent. This constitutes one cycle. How big is the cycle? A normal cycle is about 600 to 800 MROs. While the computer is printing MROs, the trucks and trailers filled with repair parts begin their daily routine. Thus begins another day for soldiers of the Class IX (repair parts) common warehouse.

As a Quartermaster officer, running a Class IX common supply sup-

6,500 lines for both wheeled and tracked vehicles. I also handled excess parts for the division. By doctrine, the division's common Class IX ASL is organic to the main support battalion and is operated by the light maintenance company. Normally, for a heavy armored division, the quantity of ASL lines fluctuates between 6,000 and 10,000 line items. These lines are valued at between \$25 and \$35 million. Almost 98 percent of the total inventory consists of repair parts lines. The SSA includes a transportation section that transports repair parts to two or three forward support battalions (FSBs). The Class IX SSA is also responsible for handling unserviceable and excess parts for

falls below these standards, it is unacceptable. You must ask for help from your support operations officer (SOO) or DMMC. The challenges continue with excess turn-in. Based on my experience, this is a requirement that cannot be met without the support of the FSBs and DMMC. Being responsible for the turn-in of all the division's excess is an exciting procedure for every Class IX platoon leader. With proper assistance from your customers, good guidance from DMMC and support from your corps support command (COSCOM) units where the Class IX parts are turned in, the process can be easy. Sometimes this process does not work as it is supposed to, and it becomes

This kind of job will better prepare you for success in your logistics career. Being the Class IX platoon leader is a never-ending job, but it also gives you detailed knowledge of how the supply system works.

port activity (SSA) is a real challenge. Being in charge of the division's common Class IX authorized stockage list (ASL) is a big responsibility. Most important, you will be instrumental in the division's overall readiness. You receive, store and issue Class IX common for the entire division. This kind of job will better prepare you for success in your logistics career. Being the Class IX platoon leader is a never-ending job, but it also gives you detailed knowledge of how the supply system works.

Cavalry Division

As a first lieutenant, I was assigned to the 27th Main Support Battalion in the 1st Cavalry Division, Fort Hood, TX. During this assignment, I was in charge of a Class IX common SSA with approximately

the division. When you do not receive assistance from your customers or FSBs or guidance from the DMMC, this job can get exciting quickly. By doctrine, the SSA normally consists of 35 to 45 soldiers working in six different sections. These sections are customer assistance, turn-in, transportation, repairable exchange (RX), warehouse and receiving.

Big Challenges

Once working in your SSA, one of your biggest challenges is to meet or exceed the performance standards in Table 1-1, AR 710-2 (Unit Supply Update). Tables 1-1 and 1-2 present an objective and a management level. Always try to reach the objective, but if your SSA is performing within the management level you are doing fine. If your SSA

a very challenging but achievable mission. In a heavy armored division you will also have major assemblies. Major assemblies are depot-level repairables that are stocked in the ASL. These major assemblies play a critical role in your operations. A Full Up Power Pack (FUPP) that consists of an M1A1 tank engine and transmission is a good example of a major assembly.

Work together with your battalion SOO. Let the SOO know if you need help. Sometimes personnel are a big issue in an SSA. The SOO can help get personnel to work in your SSA. The SOO can also assist you in getting additional equipment, which you may need for your daily mission. Work closely with the SOO, he is your link in coordinating meetings with your customers.

DMMC Management

Work closely with the DMMC. The DMMC manages most materiel for the division. The DMMC will coordinate your inventories and status of your ASL, and will demand satisfaction for your customers. Ensure that your ASL covers the FSB's ASL and the prescribed load lists (PLLs) of supported units based on your commander's intent. Check status on parts for your customers. The DMMC develops and supervises the Class IX ASL and also specifies items and quantities of Class IX to be physically stocked.

Train and motivate your soldiers. Ensure they know the importance of a customer receiving their parts. Inform your soldiers how important it is to process a receipt in 24 hours and the consequences when they do not. Always conduct a location survey before an inventory to ensure all items are in the correct location. When you schedule an inventory, inform your customers ahead of time so they understand you will be closed for awhile.

An incorrect storage location can cause a materiel release denial (MRD) and prolong critical equipment deadlines. You must periodically spot check the locations of 5 to 10 items.

Customer SOP

Establish an external standing operating procedure (SOP). Ensure

all your customers receive a copy. This SOP should provide policies and procedures for customer units to follow. You can also establish an internal SOP for your soldiers.

These major assemblies are what distinguish a heavy armored division ASL from a light division ASL. You also will be concerned with filling nonmission capable and high priority parts to fix critical weapons systems and pacing items.

Continuing the challenge of a Class IX SSA, you are responsible for transporting repair parts to the FSBs. You need to ensure that parts are being delivered on time, in the right quantities, in good condition, and to the right customer. You can also backhaul repair parts from the FSBs to your SSA in case of a shipping problem. You must establish locations for the customer parts that you directly support. You must ensure these parts are properly secured and free of damage. You also have to remember, that in all of this, you are a platoon leader. As a platoon leader you are responsible for the readiness of all platoon equipment including tractors, trailers, supply vans, forklifts and generators. Normally you have 35 to 45 soldiers that you are responsible for. In most cases, these soldiers are stretched thin trying to accomplish a wide range of missions. In fact, your warehouse will probably operate 24 hours a day. In these situations, you will have to manage both a day and night shift.

Extra Miles

To provide quality support, you must know all of your supported units and establish good working relationships with them. Go the extra miles to totally support your customers. The Direct Support Unit Standard Supply System (DS4) generates a monthly supply performance report which you can use to measure support of customer units. Customer satisfaction is the goal.

The mission of the SSA is to supply supported units. How well your SSA provides this support will depend on you and your unit. I encourage you to take the challenge an SSA has to offer. Quartermaster officers have the basic preparation in general supply and materiel management that helps them perform this type of duty. You will contribute in the division's overall readiness. This kind of job will prepare you with good knowledge for future assignments.



CPT Hector M. Moran has a degree in business administration from the University of Puerto Rico. He is also a graduate of the Quartermaster Officer Basic and Advanced Courses. His previous assignments include Class IX Platoon Leader, Supply and Services Officer and Company Executive Officer, 27th Main Support Battalion, 1st Cavalry Division, Fort Hood, Texas. Upon completion of the Subsistence Officers Course and Airborne School, he will be assigned to the 101st Airborne Division, Fort Campbell, Kentucky.

Quartermaster Braves Corregidor

Dr. Steven E. Anders

The Bronze Star was awarded to Staff Sergeant Edward J. Larson, Quartermaster, who was a member of the Quartermaster detachment at Corregidor in April 1942. During a combined air and artillery bombardment, he secured permission to assist in evacuating the wounded. He braved continuous enemy shelling and, with the assistance of a medical corpsman, successfully moved two casualties to the Malinta Tunnel Hospital in a reconnaissance car,

meanwhile suffering severe wounds which resulted in the loss of his right arm. Sergeant Larson's unselfish heroism was an inspiration to the men around him.

Dr. Steven E. Anders is the Quartermaster Corps Historian, U.S. Army Quartermaster Center and School, Fort Lee, Virginia.

Operation Provide Promise — Resupplying the Bosnians

CPT Jordan S. Chroman

A 14-year-old boy brings his family 30 pounds of food in the Muslim enclave of Gorazde in eastern Bosnia. Food is scarce since fighting between Serb militias and Muslim rebels broke out 25 Jun 91, when Croatia and Slovenia declared their independence from Yugoslavia. Serbian forces block United Nations convoys carrying food and medicine to Muslim enclaves. Where did this boy's supplies come from? How are people getting food and supplies in this time of civil war?

Needed items were delivered by air, courtesy of the U.S. Army, Air Force and other United Nations Forces as part of *Operation Provide Promise*.

Combined Services

Operation Provide Promise, truly a combined services operation, is a clear-cut example of the U.S. and other forces working together with ingenuity to achieve a common goal. The U.S. European Command (USEUCOM); the Commander in Chief, U.S. Army Europe (CINCUSAREUR); and the U.S. Air Force Europe (USAFE) took the lead. Members of the 5th Quartermaster Detachment (Army), the 29th Area Support Group (Army), the 21st Theater Area Army Command (Army), the 435th Air Wing (USAF), the 37th Aerial Port Squadron (USAF) and other U.S. units participated in the relief effort. Additional rigger and air force units from Germany, Great Britain and France aided in the operation. Riggers and air crews worked around the clock for weeks at a time with little rest to ensure success. Without the combined efforts of riggers, loadmasters, aerial port personnel, pilots and other support personnel, this mission could never have been successful. The study of this and

other airdrop missions teaches junior logisticians many lessons necessary in supplying and transporting today's rapidly deployable military. Aerial delivery operations are ideal for both military missions and civilian relief actions. Airdrop allows delivery of supplies and equipment in an entirely different way than any other transportation system. All logisticians should be familiar with aerial delivery and its capabilities.

Riggers

As a rigger officer from the 82d Airborne Division, I have seen firsthand how aerial resupply benefitted troops on the ground. As I read articles in newspapers, I became curious about this aerial resupply mission. As I often do, I turned to history as my teacher and guide. During *Operation Provide Comfort*, which supplied food to many nationals in Iraq and Turkey, we saw resupply to these civilians. However, this operation differed because we were delivering supplies to a nation during a civil war, a war in which we were not militarily involved.

Operation Provide Promise officially started 1 Mar 93 when U.S. Air Force C130 Hercules transport airplanes from Rhein-Main Air Base in Germany dropped supplies to Cerska, March 2 to Zepa, and March 3 and 4 to Konjevici. On March 1, 27 bundles of food and 3 bundles of medical supplies were dropped. By the 11th day of the operation, over 384 short tons of supplies had been delivered. As of 12 May 93, over 3,360 short tons of supplies (5,274 bundles) were dropped by United Nations Forces. One hundred aerial delivery containers were being dropped daily, with no projected end date.

Normal military Container Delivery System (CDS) bundles include everything from Meals, Ready to

Eat (MREs), potable water, repair parts, medical supplies, and whole blood. Many not-so-standard loads were needed. This posed only temporary problems for the innovative riggers. In addition to the standard food and medicine, sugar, cooking oil and personal comfort items were supplied through CDS. With this system, just about any commodity can be airdropped.

Accuracy

There was some concern about the accuracy of the CDS bundles hitting their targets during the initial days of *Operation Provide Promise*. The air force navigator computes factors such as weather, surface wind, flying speed and altitude to determine a Computed Air Release Point (CARP) or, for high altitude drops, a High Altitude Release Point (HARP). After computing his CARP or HARP, the navigator signals the loadmasters when to release the loads over the drop zone. On 1 Mar 93, all CDS bundles were dropped at 10,000 feet and fell within 40 to 540 meters of the desired impact point (confirmed).

The basic components of the CDS bundle are an A-22 canvas cargo bag with scuff pad and webbing, a cargo parachute (either a G-12D or G-12E for low velocity airdrop or a 26-foot ringslot for high velocity airdrop), a plywood skidboard, several layers of shock-absorbing, paper-board honeycomb, and the actual logistical load for airdrop. The entire bundle, including the accompanying load, must weigh between 501 and 2,200 pounds. The bundle must not exceed 83 inches in height.

The CDS bundle is dropped by one of two types of airdrop: high velocity (dropped at an altitude of up to 10,000 feet, with a descending rate of approximately 60 to 90

feet per second) or low velocity (dropped as low as 600 feet, with a rate of descent of approximately 23 to 30 feet per second). Because of security and the turbulent nature of the fighting in Bosnia, high velocity was the preferred method.

High Velocity

The primary drops were high velocity CDS bundles delivered by the U.S. However, every country brought a "twist" to the effort of aerial resupply. The Germans, who arrived at Rhein-Main 15 March, brought four C160 Transal aircraft and 10 riggers. The U.S., Turkey, Great Britain, Norway and other countries and worldwide relief organizations donated food, medical supplies, and personal items for the drops. Airdrop equipment, parachutes and other necessary items such as A22 containers were cross-leveled from all over the European Theater so the riggers at Rhein-Main would have enough supplies to continue their rigging mission. New

contracts with civilian suppliers for airdrop equipment and expendable items were initiated.

Telephone, FAX and written communications were constant within the rigger and loadmaster communities. Because of the civilian-oriented nature of many of the supplies dropped, quite a few loads did not meet normal military standards. Natick Research, Development and Engineering Center (Airdrop Systems Division) granted special waivers for these loads.

Since World War II, the CDS has been an incredibly versatile means of resupply. CDS has been used in every war, military action and many humanitarian operations since its inception in the 1940s. Now, as the U.S. military shrinks in size, we must rely more and more on innovative and flexible means of accomplishing a goal. CDS is now and will continue to be one of the ultimate means of resupply.

As a logistician, get to know the capabilities of aerial delivery. If

you need to get ammunition to soldiers on the battlefield, bales of concertina wire to a mountain outpost, or send needed commodities to civilians thousands of miles from your location, look to aerial delivery as your transportation choice.



CPT Jordan S. Chroman is a graduate of the University of California, Berkeley, with a degree in mass communications. He is also a graduate of Quartermaster Officer Basic and Advanced Courses, Airborne and Jumpmaster Schools, and the Aerial Delivery Materiel Officers Course. He was previously assigned to Hamilton Army Air Field, California, where he served as Team Member/Executive Officer, 3d Battalion, 12th Special Forces Group (A), U.S. Army Reserve. In addition to his Reserve duty, he served as Aerial Delivery Platoon Leader, Company Executive Officer, Assistant Battalion S3, and Commander (Forward), E Company, 407th Supply and Transportation Battalion, 82d Airborne Division, Fort Bragg, North Carolina.

The Rigger's Pledge

I will keep constantly in mind that until we grow wings our parachutes must be dependable.

I will pack every parachute as though I were going to jump with it myself and will stand ready to jump with any parachute which I have certified as properly inspected and packed.

I will remember that the other person's life is as dear to him as mine is to me.

I will never resort to guessing, as I know that chance is a fool's god and that I, as a rigger, cannot depend on it.

I will never pass over any defect, nor neglect any repair, no matter how small, as I know that omissions and mistakes in the rigging of a parachute may cost a life.

I will keep all parachute equipment entrusted to my care in the best possible condition, remembering always that the little things left undone cause major troubles.

I will never sign my name to a parachute inspection or packing certificate unless I have personally performed or directly supervised every step and am entirely satisfied with all the work.

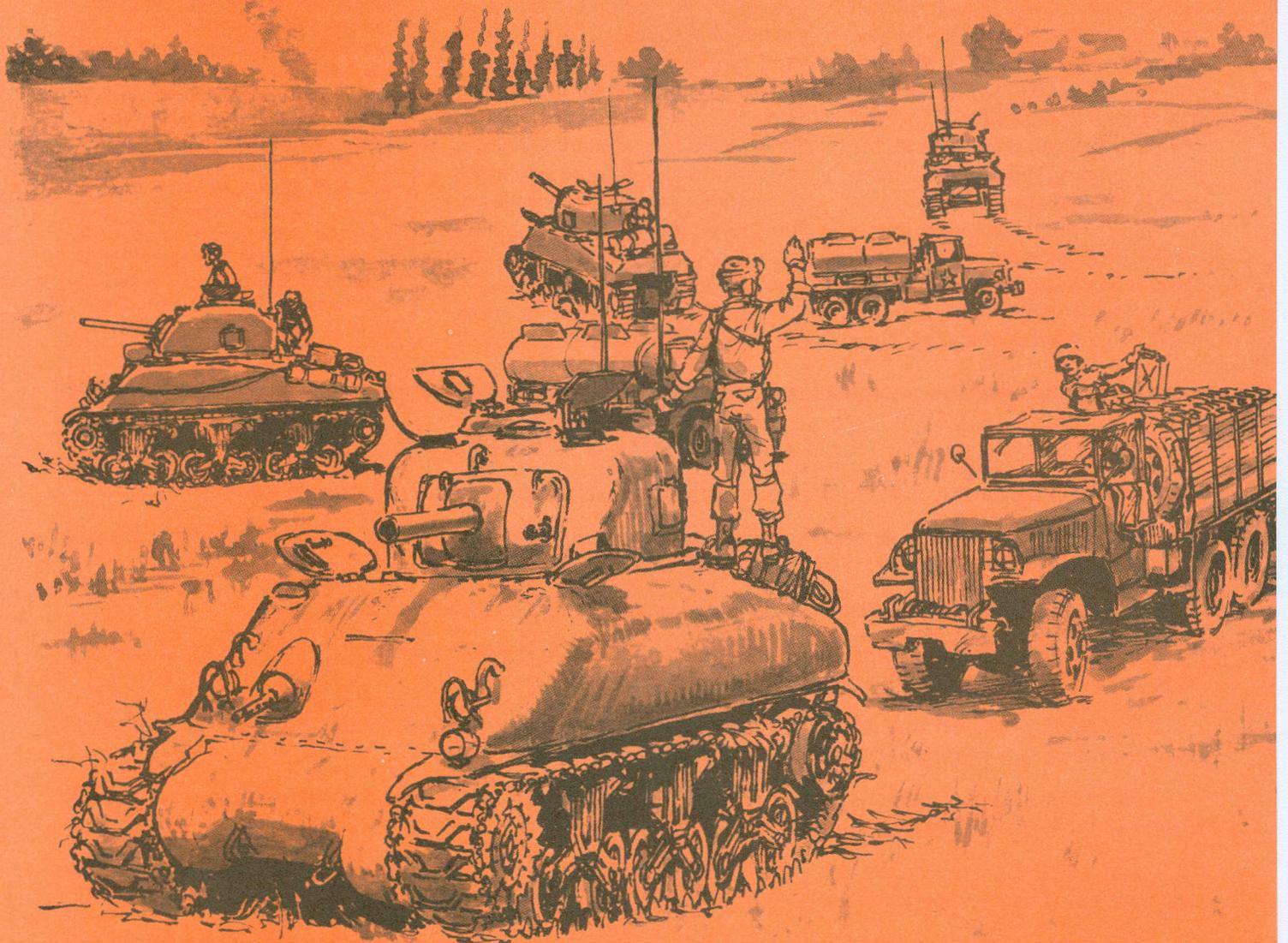
I will never let the idea that a piece of work is "good enough" make me a potential murderer through a careless mistake or oversight, for I know that there can be no compromise with perfection.

I will keep always a wholehearted respect for my vocation, regarding it as a high profession rather than a day-to-day task, and will keep in mind constantly my grave responsibility.

I will be sure—always.

Saluting the great work by Quartermaster 43E (Parachute Riggers) during Bosnian Air Drop Missions

Quartermaster Support to Mounted Units...



Europe, 1944



Saudi Arabia, 1991

Rear Battle Victory

CPT Barney I. Smith III

As a supply platoon leader for a forward support company in a rotation at the Joint Readiness Training Center (JRTC) at Fort Chaffee, AR, I came to understand the particular importance of rear battle operations in the brigade support area (BSA). JRTC provided a realistic view of how easily a threat force can destroy the BSA's combat service support (CSS) effectiveness of the BSA. Every CSS leader must understand that if CSS troops are to survive and logistical support be successful, a comprehensive rear battle plan must be established.

Rear battle operations consist of combined actions by all units in the BSA to secure the force and neutralize or defeat enemy operations. A thorough rear battle plan ensures freedom of action in the

must manage the brigade's rear operations simultaneously with the brigade's close and deep operations. The brigade commander has a vested interest in the support elements remaining intact and fully operational. When CSS is degraded, the commander's ability to support the combat force is degraded and combat power loses effectiveness.

Success or failure of the rear battle operations plan depends on the FSB commander's ability to synchronize the sustainment imperatives of **Anticipation, Integration, Continuity, Responsiveness** and **Improvisation** into the brigade commander's scheme of maneuver. Basic to the operational and tactical success of the battlefield, these imperatives will ensure unity of effort between the BSA and ma-

tion of the BSA based on the recommendations of the FSB commander. Depending upon the factors of mission, enemy, terrain, troops and time (METT-T), the FSB commander recommends to the brigade commander one of two BSA layouts: a base or a base cluster. Certain factors must be considered.

A base is a defensible area with a continuous perimeter and established access control. It provides better command, control and communication (C3), and units will only have to defend a small portion of the perimeter. However, a base is an amassed configuration that presents a larger target for enemy air and artillery attacks.

A base cluster configuration contains several bases that can be grouped together or dispersed.

'The AirLand Battle cannot be solely won in the rear area but it can well be lost in the rear.'

scheme of maneuver for the brigade commander to fight the close and deep battles. Key elements that enhance the effectiveness of the rear battle operations plan include centralized control at the base cluster operations center (BCOC), active and passive defensive measures, and, most importantly, synchronization of all units in the BSA. All leaders must understand this plan and must be able to incorporate their mission support into rear battle operations.

Responsibility

The brigade commander is ultimately responsible for rear battle operations in the BSA. To effectively conduct the battle and sustain the main effort, the brigade commander, through the forward support battalion (FSB) commander,

neuver forces. The FSB commander must ensure that the six major logistical functions (to man, arm, fuel, fix, move and sustain) can support the tactical plan.

The brigade rear battle officer is responsible for coordination and communication between the brigade commander and the FSB commander. That officer is normally the brigade S4 because he is already colocated with the support operation section in the rear administration/logistics operations center (ALOC) of the BSA. He prepares and coordinates the brigade logistics estimate to support the brigade tactical plan. The importance of the rear battle officer cannot be over-emphasized. His coordination ensures integration of the CSS plan and the tactical battle plan.

The brigade S3 selects the lo-

There are no defined perimeters or access points. A dispersed base cluster provides better security against air and artillery attacks. However, because of no defined perimeter, a base cluster is extremely difficult to defend. Each company must defend a larger perimeter, which puts additional pressure on its ability to provide logistical support. Support units are at a greater risk against Level I threats because units are so dispersed. Land line communications may be limited because of the great distance between each support base. There will be a longer response time for the military police and quick reactionary forces to respond to Level I and II threats. Also, a base cluster makes it inconvenient for individual soldiers walking to the medical company for sick call or walking to the

dining facility in the forward support company.

During my JRTC rotation, the base cluster was chosen over the base configuration. Defending the perimeter was the most difficult task because the personnel assets were not available to man a 360-degree perimeter. Our constant support requirements left little time to construct adequate fighting positions. Priorities must go to establishing good fighting positions with interlocking sectors of fire. If available, engineer assets can help start the fighting positions.

Base Cluster Operations Center

For success of the rear battle operations plan, there must be centralized control at one location dedicated solely to rear battle operations. Establishing a base cluster operations center (BCOC) does this. The BCOC mission is to organize and execute the FSB commander's rear operations plan, which includes security planning, command and control, and intelligence to tenant units in the BSA. The BCOC consists of the battalion executive officer (XO), S2/3 section, and slice command, control and

communication (C3) of attached units, including air defense artillery (ADA), engineer, chemical, signal, military intelligence and military police.

The FSB commander is the BCOC commander. However, he may designate an alternate with that duty, normally the battalion S3. The FSB commander locates where to best monitor security and logistics. The BCOC commander is the terrain manager of the BSA and is responsible for assigning defensive positions, sectors of fire and positioning ADA assets.

The BCOC is the positioning authority for elements entering, transiting or moving within the BSA. All units and elements must first coordinate their locations, routes and missions with the BCOC. The BCOC selects the BCOC site, designs the internal layout, installs required communications systems, develops 24-hour staffing, and ensures a backup BCOC site.

The BCOC must coordinate with the brigade S3 to integrate the brigade rear battle plan into the brigade tactical plan. The BCOC must also maintain current battlefield information from the front and intelligence preparation of the battlefield (IPB) from the brigade tactical op-

erations center (TOC). The BCOC collects all intelligence and main supply route data and doctrinally maintains templates of the friendly and enemy situation. The brigade S2 is responsible for information about threat activity and probable enemy courses of action. The BCOC must continually monitor the brigade radio net and stay informed of enemy information.

The BCOC maintains a current overlay of the BSA rear operations plan. Once final, the rear battle operations overlay goes to the brigade S3 to coordinate support if brigade assets commit to rear operations. The overlay must contain base sectors of fire, target reference points, artillery fire locations, base layouts, BSA road networks, locations of mines and obstacles, planned indirect fire coverage, observation posts, patrol routes and positions of crew-served weapons. Fighting positions should be numbered in sequence on the rear battle overlay. This will help the military police and quick reactionary force (QRF) locate the attacking force. The BCOC commander must consider personnel and equipment restraints when planning mutually supporting fires among adjacent units.

THREAT LEVEL I: **Characteristics** — Activities of enemy agents, saboteurs and terrorists.

Actions — Increase guards, spot-check vehicles, increase protection of key facilities and tighten local security to 25 percent.

THREAT LEVEL II: **Characteristics** — Diversionary and sabotage operations conducted by unconventional forces. Raid, ambush and reconnaissance missions by less-than-battalion-sized combat units.

Actions — Control access to all areas, stop and check all vehicles, alert the quick reactionary force, and tighten local security to 50 percent.

THREAT LEVEL III: **Characteristics** — Penetration by battalion-sized or larger ground force, air assault, airborne and amphibious operations.

Actions — Activate military police and quick reactionary forces, activate tactical combat forces and tighten security to 100 percent.

Figure 1. Threat Levels

Smaller task force units should fall under the command and control (C2) of the larger units for security purposes. Individual company commanders or designated officers in charge (OICs) are responsible for the base defense of their assigned base sectors.

Each base maintains a base defensive operations center (BDOC) on a 24-hour basis to maintain continuous contact with the BCOC. The BDOC serves as the C2 element within the base and is subordinate to the BCOC for rear operation security taskings. Each BDOC must coordinate for mutual support with adjacent base BDOCs and submit coordinated defensive plans to the BCOC within hours of arrival at a new operating site. Each base is linked to the BCOC switchboard by land line or FM radio. Whenever possible, units should occupy the same location within the BSA relative to other units every time the BSA moves. Units should build relationships with other units on all sides to make coordination of sectors of fire easier.

Quick Reactionary Force

As part of the BSA defensive plan, the BCOC commander is responsible for assembling a quick reactionary force (QRF). The QRF augments the BSA's defensive posture. The BCOC will deploy the QRF for internal security reinforcement and for an attack when military police are not available. Additional QRF missions include BSA patrolling/reconnaissance, civil disturbance, dismounted operations and very important person (VIP) escort.

The QRF normally consists of a squad-sized element of soldiers selected from each company and an experienced noncommissioned officer (NCO) to call indirect fire. The NCO should conduct intensive training and rehearsals in infantry squad tactics. The QRF should be equipped with at least one M60 machine gun, a hand-held or "manpack" radio, and night vision devices and vehicle. Night vision

| Color | Meaning | Mission Versus Support |
|-------|---|--|
| Green | No enemy activity in brigade support area (BSA) at present. | Normal support and security per standing operating procedure. |
| Amber | Confirmed enemy activity in BSA vicinity but not in BSA. | Fighting positions manned with automatic weapons deployed, military police and quick reactionary force alerted, and 25 percent to 50 percent security. |
| Red | BSA elements in contact with enemy. | 100 percent alert, all fighting positions manned and automatic weapons deployed, military police and quick reactionary force deployed. |

Figure 2. Brigade Support Area Alert Status

devices are essential because it is difficult to tell enemy and friendly forces apart at night.

The QRF should assemble at the BSA TOC or at a predesignated location during an amber or red alert status. The QRF should assemble during stand-to in the morning and evening. These soldiers must have a good understanding of the BSA layout so they can quickly converge on the designated location when alerted. When the threat in the rear area exceeds the capability of the military police or QRF, the BCOC commander may request tactical combat force (TCF) support from the supported maneuver brigade.

The brigade TOC is continuously appraised of the situation. The brigade TOC should be prepared to provide a tactical combat force (TCF), artillery and air support to assist the BSA. However, support from the maneuver brigade depends on the tactical situation. The military police OIC and QRF NCOIC should attend rear battle security

meetings to fully understand the mission and threat.

During my JRTC rotation, the QRF was ineffective because they were hastily established and not trained in infantry tactics. The QRF soldiers must be identified before field training exercises and should train while in garrison. If properly trained and equipped, the QRF can be an important asset to the FSB commander's rear battle operations.

Threat

Conventional artillery attack is probably the single greatest enemy threat to the BSA, as well as Level I ground and air attacks. The only real countermeasures are to maintain considerable dispersion within the base or base cluster, to avoid detection, detect incoming rounds before arrival, announce early warning, and seek artificial or natural cover. All personnel should have a predetermined, dug-in fighting position or bunker to seek cover. Following any attack, the FSB com-

mander must consider immediate BSA displacement, in part or in total, in case of further attacks.

Passive and Active Defense

Commanders must use whatever means necessary to deceive the enemy by concealing and displacing the FSB as much as the terrain and situation will allow. The greatest defenses against Level I, II, and III threats (Figure 1) are early warning, good physical security and deception. The BSA must use active and passive defense measures against enemy threats.

Active defense measures include a good fire support plan, military police, QRF and tactical combat force to deter the threats. Passive measures, the most economical to the unit, can be the most important. Cover and concealment, dispersion, frequent displacement, information on enemy activity, signal and heat deception, noise and light discipline, and physical security can prevent enemy detection. Using antiradar camouflage to cover any unconcealed vehicles, tents, equipment or obvious work areas is critical. Digging in, sandbagging or installing special mufflers will reduce or eliminate generator noise. Checkpoints at base entrances are an important part of physical security. Convoys should also avoid the same operational patterns.

Because of large quantities of personnel and equipment in the BSA, every unit must find new ways to conceal equipment and vehicles. With the diversity of units in the BSA, organization and unity of command are critical for successful rear battle operations.

Communications

A successful rear battle operations plan must have effective communications between the maneuver brigade and FSB. Also, the BCOC must maintain effective communication with all units inside the BSA. The BCOC commander may want to establish a green, amber or red alert status within the BSA. This

will inform units within the BSA of the current enemy situation and allow time to assume a rapid defensive posture. The BCOC must ensure that all units within the BSA understand the threat level and appropriate alert status.

Land line communications are primarily for local security and internal operations. The FM radios and mobile subscriber equipment (MSE) monitor the FSB communication/operations net which controls elements in the BSA. They are also used to monitor the division support command (DISCOM) command/operations net. The support operations section monitors the brigade administration/logistics net.

The BSA cannot always rely on wire, FM or MSE communications to relay alert status. It may be quicker to specify recognizable signals that are easy to initiate. For example, the warning for a nuclear, biological, chemical (NBC) attack could be a metal-on-metal signal. This can be relayed quickly by voice, hand and arm movements, or a horn blast. Flares can be used to alert the BSA of the green, amber or red status.

SAVE Plan

If a tactical combat force, artillery and air support are not available during a Level II or III attack, the BSA commander may want to initiate a "SAVE" plan. The objective of the BSA SAVE plan is to evacuate as many patients, personnel, and critical C2 and CSS assets as time permits when a Level III ground attack is imminent. The best countermeasure may be to evacuate to an alternate BSA location identified beforehand. The SAVE plan will allow the BSA to provide continued logistical support to the maneuver brigade from an alternate BSA location. Doctrinally, very little is written about BSA SAVE or "bugout" plan operations. FM 90-14 (Rear Battle Operations) talks about retrograde operations, but does not go into depth about the BSA. Many FSB commanders have

incorporated different variations of this plan into their tactical SOP.

Today's changing Army requires CSS leaders to be tactical, multifunctional logisticians who synchronize the tactical mission and the CSS plan. This understanding will allow the CSS unit to anticipate requirements instead of reacting to them. The maneuver brigade depends on the CSS leaders' ability to synchronize CSS assets into the tactical plan. CSS assets will be ineffective if the BSA does not have a viable rear battle operations plan. The maneuver brigade relies heavily on the logistical support of the BSA. Equipment and personnel must be preserved if the brigade is to win the battle.

The FSB commander and staff are faced with a significant challenge in accomplishing the BSA rear battle operations mission. Although improvements in equipment and organization may improve the capability of the BSA to accomplish this mission, only with innovative, realistic and integrative training of the organic, tenant and transient elements will survival will be possible. The rear battle operations plan must be refined, updated and rehearsed in varying levels of darkness and alert readiness levels. What works for some units may not work for others, and much depends on the FSB commander.

Doctrinally, very little is written on rear battle operations in the BSA. FM 90-14 briefly talks about the rear battle in the BSA. If CSS units are to survive in combat, the Army requires more doctrinal information on the subject of rear battle operations in the BSA.



CPT Barney I. Smith III has a bachelor of arts degree from the University of New York at Brockport. He is a graduate of the Quartermaster Officer Basic and Advanced Courses and Airborne School. His previous assignments include Company Commander, Company Executive Officer, and Supply Platoon Leader.

Systems for Logisticians

CPT Danny F. Tilzey

One of the successful leader's most positive traits is the ability to analyze and improve upon the way things are done. This leader understands the concept of systems, employs systems in assignments, and knows how to arrange and prioritize them. This leader knows that more efficient systems save time, money and manpower and can greatly improve the unit readiness. More importantly, this leader knows that efficient systems lead to efficient and effective soldiers and units.

This article aims to familiarize the leader at every level with the concept of systems and its importance in today's Army. My varied military career has provided a strong proving ground for my thoughts on systems. Systems are an integral part of every military branch.

My military career has surely been a diverse one. I started out as an enlisted soldier stationed at Fort Dix, NJ. I trained as a cook, but served my enlisted time as a physical fitness specialist. After nearly three years at Fort Dix, I returned to college full-time in order to return to active duty as an officer.

Shortly before my college graduation, my Reserve Officers' Training Corps (ROTC) instructor informed the cadets of their Army status and assignment. Some were obviously pleased. Others were not. As for myself, I think I was in shock. I had been assigned as a branch detailed officer. All I knew about the whole process was that after four years in the Armor Branch, I would be whisked away to the Quartermaster Branch.

Most Dynamic

My four years as an Armor officer in 2d Squadron, 3d Armored Cavalry Regiment, a designated Rapid Deployment Force, were the

most dynamic and challenging of my military career. I experienced numerous gunneries and field training exercises, two National Training Center (NTC) rotations, and a deployment to Saudi Arabia for *Operation Desert Shield/Storm*. I learned that a good system — logistical, maintenance or administrative — must be in place, from the front lines to the squadron field trains, to successfully meet the challenges offered by these experiences.

Within five months after redeploying from Saudi Arabia, I returned to the NTC as a scout platoon leader with 2d Squadron. The squadron soldiers set records by destroying the opposing forces during numerous battles and, more importantly, by demonstrating the ability to re-deploy and deploy in such a short time frame.

This success may be attributable to many factors. However, I believe it resulted from the continuity of all the systems that the soldiers understood, visualized and refined during *Operation Desert Shield/Storm*, and implemented during the deployment to the NTC. These were the same systems I would learn to appreciate while serving as the Executive Officer for Headquarters, Headquarters Troop (HHT) and later as the Squadron S4.

When the time came for me to leave the Armor Branch, I was not sure I wanted to. I had been mentored by Armor's best officers and noncommissioned officers (NCOs), and I believe I had a promising career in that branch.

I understood the Cavalry. I knew what worked, what did not, and what was needed to be successful. I had learned to hone my skills, and those of my soldiers, implementing systems. However, now that I am taking the Quartermaster Advanced Officer Course, I

have learned that these are not exclusive to the Armor branch. We need to understand the concept of systems, among other things, to become a successful soldier in today's multifunctional Army.

Many soldiers do not understand what a system really is. Plainly speaking, it is a means to an end. A system is a methodical approach to achieving individual or unit goals. Each member of a unit needs to become familiar with the systems functioning within that unit. This is especially true of the newly arriving officer or senior NCO.

Many times a system is built around one person who possesses good skills. If this individual went on temporary duty or had a permanent change of station, the system could fall apart. Therefore, a system should be created and implemented with the entire unit, not any individual leader, in mind. This may eliminate personal idiosyncrasies which may pervade the system. This may also allow for a good system to continue functioning despite personnel turnover.

Besides a good functioning system, another asset to any military leadership is a Continuity Book. This Continuity Book offers the incoming leader information on the "who, what, when, where and how" of any system in place. The outgoing leader offers the incoming leader an honest presentation on the status of the existing system. No senior leader should ever depart a position without first giving an up-to-date Continuity Book to the incoming leader.

In analyzing a unit's systems, a leader must look at the means used to achieve a goal. Check on how the unit conducts business. For example, how does the unit license operators? How does the section or platoon move from the

motor pool to the assembly area? Does the unit plan for training using the event system, a methodical process employing sand tables, Training Exercise Without Troops, rehearsals, precombat inspections, after action reviews, and recovery?

Personal Experience

If systems exist within the unit, the leader must then analyze the stage they are in. Is the system in the development stage or in the execution stage? Has a system been developed that has not been put into effect? Is the present system nonfunctional?

If a system has problems, the senior person in charge should be notified. An analysis of the problem, along with recommendations for the solution, should also be discussed. Do not take it for granted that someone else is going to make everything all right. As leaders we must be the first to take responsibility and action to make things happen.

I have learned about systems through personal experience. I took over the motor pool operations while assigned as the executive officer for HHT. A major challenge for me was the incorrect usage and lack of accountability of DA Forms 2404 (Equipment Inspection and Maintenance Worksheets). I realized the system already in place needed fixing. After surveying and analyzing the problem, I came up with a solution: a new system of issuing a file packet, within a jacket, for each item in the motor pool.

The new system worked as follows: the Unit Level Logistics System (ULLS) clerk issued the item file packet, containing computerized and blank 2404s, and emergency dispatch forms, to the operator. The operator signed for the file packet in a logbook and performed preventive maintenance checks and services (PMCS). Upon completion of PMCS, the operator returned the file packet to the ULLS clerk who, in turn, issued the operator a stamped receipt copy of the 2404. The ULLS clerk issued the file

packet to the motor sergeant. He then issued the files to each of his mechanics. The mechanics verified the 2404s, fixed any deficiencies at their level, and looked up the part numbers. The mechanics returned the file packets to the motor sergeant, who performed quality assurance on the packets before turning them in to the ULLS clerk. The ULLS clerk ordered the parts verified by the mechanics and closed out the logbook on that particular file. The file packet would then be ready for the next command maintenance day.

These may seem like a lot of steps, but I have learned that a good working system must have levels that allow for checks and balances. With this system in place, accountability for the 2404s was restored, and verification of the form was available at every step and level. This allowed me to inform the commander, through information in the logbook, on the status of each file packet and 2404.

In my experience, soldiers will do their jobs and do them better if they understand the systems used in their unit. At HHT formations, soldiers were asked to explain the maintenance flow system. They learned to explain it perfectly because it was the system used by all in the unit. They had learned to visualize the system and make it work.

Now that I have joined the ranks of the Quartermaster Corps, I am learning that creating and implementing a system to ease the transition of branch-detailed officers is necessary. The present system has year group 1990 and onwards attending a six-week Quartermaster Basic Course, usually after serving two years in the detailed branch. Upon completion of this course, the officers return to their home duty station and seek Quartermaster or soldier-leading positions.

Although I served as a squadron S4, I had no contact with Quartermaster personnel. I neither attended a Quartermaster basic course, nor a branch detail course.

I believe that contact with Quartermaster personnel early in a branch-detailed officer's career is the key to developing a successful Quartermaster officer and leader.

The Army can achieve success if the senior Quartermaster officer on each installation with branch-detailed officers schedules quarterly officer professional development (OPD) training. Offering Quartermaster-related OPDs to these branch-detailed officers would give these officers insight into the working mechanisms of the Quartermaster branch, as well as the mentorship lacking in the current system. They would also have the opportunity to develop a strong network within a new branch.

To further improve this system, the Quartermaster School should develop a correspondence course for branch-detailed officers. This would make these officers familiar with the operating systems within the Quartermaster Branch. This would also show the incoming officer that the Quartermaster branch cares about its detailed officers.

These are only recommendations to improve an existing system. Pluses and minuses are inherent in any system. However, honest and open-minded analysis will enable the leader to make the necessary changes and adjustments to keep improving the existing system.

The challenge of today's multifunctional Army requires good working systems to be in effect. Good systems take time and effort on the part of everyone in the unit to be successful.



CPT Danny F. Tilzey is a former 94B (Food Service Specialist) enlisted soldier and Cavalry Officer. He is a graduate of the Armor Officer Basic and Quartermaster Officer Advanced Courses. He has served previously in a variety of Armor troop-leading positions in the 3d Armored Cavalry Regiment and was awarded the Silver Star while serving in Operation Desert Shield/Storm. He is currently a student in the Petroleum and Water Officers Course. Following completion of the Subsistence Officers Course, he will be assigned to the National Training Center, Fort Irwin, California.

Command Philosophy

CPT Kent S. Marquardt

Command philosophy sets the stage for the atmosphere within any command. Philosophy has been defined as "... the system of values by which one lives..." and includes "...wisdom by intellectual means and moral self-discipline..." This system of values is at the heart of any great organization. As a commander, it is always a good idea to let soldiers, noncommissioned officers and officers know where you are coming from right from the start. A good way to do this is publishing a one-page command philosophy. It sets the attitude and climate for a company-level command. The following was my command philosophy in the 53d Quartermaster Heavy Materiel Supply Company (General Support):

- I feel that it is my duty to let the "Unit Leaders" know what my goals and expectations are.
- The following simple goals guide the way we do business:
 - To provide quality support to the customer.
 - To have combat-ready soldiers and equipment.
 - To foster an enjoyable living and working environment.
- We will focus on four key things to accomplish these goals:
 - Caring for soldiers and families—my number one priority. Keep soldiers and families informed of changing situations. As much as possible, tell them who, what, when, where, how and, most important, why.
 - Supply and Maintenance—Maintenance readiness and supply discipline are keys to success.
 - Training—Good and realistic training are important to soldier morale, job satisfaction, confidence and esprit de corps. Make training innovative and tough. The harder and more challenging the training, the more soldiers are interested, proud and want to be the best.
 - Leadership—(some tips compiled on successful leadership):
 - Speaking and writing well are essential and well-respected tools of leadership.
 - Discipline is the glue that binds. Expect and demand it.
 - Some leadership traits that I admire are consideration for others, enthusiasm, fairness, moral and physical courage.
 - Talk to soldiers. Respect and know them. Teamwork is built by counseling and supporting. Know where your soldiers are from, their weaknesses, strengths, problems and concerns. Reward and punish fairly. Strive to reward more than punish.
 - Know when to stop fighting for something you think is right. Discuss and argue your

point of view until a decision is made, and then support the decision wholeheartedly. Salute and drive on!

- There will be no question of integrity and trustworthiness. Tolerate no compromise.
- Do not overinspect and undersupervise. Allow mistakes in training and learn from them. Always conduct an after action review (AAR) to learn from the errors in order not to make them in combat.
- Think of self-improvement through constant self-evaluation. Do not settle for less than your best. Never be satisfied! Think of how to do it better. Never find yourself thinking there is nothing to do. If you are genuinely satisfied with what you have done, look to yourself. I know that you could use some self-evaluation and professional development.
- Be a doer and a self-starter: innovative, inspired, motivated, assertive and aggressive. These are things that leaders are made of. Never forget them. However, always think things through, make your "pre-combat" checks.
- I have faith in your abilities and am confident that you will help keep this unit the best. I am proud to serve this unit and look forward to working with each one of you.

My company command philosophy served me well. Although I do not claim that my example of command philosophy is the best, and is it by no means original, it is a basic example for future company-level commanders to follow. When you or your subordinates have a dilemma about a certain decision or course of action, look to your command philosophy. The command philosophy establishes a set of goals by which to measure your success and set your unit on the right path. This philosophy applies to leaders at all levels of company-grade command (squad leader, platoon sergeant, platoon leader, first sergeant, company commander). Company-grade officers and noncommissioned officers face challenges from the front lines of America's youth on a day-to-day basis. Do not let them down. Use the command philosophy to establish yourself as the role model and you cannot lose.



CPT Kent S. Marquardt is currently the Supply and Services Officer for the 16th Corps Support Group, Hanau, Germany. He is a graduate of Texas A&M University, College Station, and also of the Air Defense Officer Basic, Quartermaster Advanced, Airborne, and Air Assault Courses. He has served previously as Platoon Leader, Battery Executive Officer, Battalion S1, Battalion S3, Assistant Division Materiel Management Officer, and, most recently, as the Commander of the 53d Quartermaster Heavy Materiel Supply Company (General Support).

Fratricide: It's Everybody's Business

CPT Robert R. Jones

During *Operation Desert Storm*, U.S. forces sustained 615 casualties, 107 of which were the result of friendly fire or fratricide. There were 15 separate friendly fire incidents, 12 direct fire engagements and 3 indirect fire fratricides. Of the 12 direct fire engagements, all but one occurred at night. Also, conditions almost always included dust, smoke, rain and fog. As logisticians, we must know the causes of fratricides and do everything in our power to prevent them from occurring.

Situational Awareness

A primary cause of fratricide is a lack of situational awareness. Situational awareness is the real-time, accurate knowledge of one's own location and orientation and the locations of friendly units, the enemy, and any neutrals and noncombatants in the area. The following factors contribute to situational awareness:

- **Land Navigation Failures:** Navigation problems can cause units to stray out of sector, report wrong locations, become disoriented or employ fire support weapons from wrong locations. As a result, friendly units may collide unexpectedly or engage each other erroneously. Navigation is often complicated by difficult terrain or weather and visibility.
- **Known Battlefield Hazards:** Unexploded ordnance, unmarked and unrecorded mine fields, and booby traps litter the battlefield. Failure to remove, mark, record or otherwise anticipate these threats can lead to casualties.

Fratricide off/in CSS Units

Situational awareness is particularly important for combat service support (CSS) units. M1 tanks and M2 Bradley fighting vehicles are relatively easy to identify and distinguish from enemy vehicles, but CSS vehicles are not. Cargo trucks, fuel tankers and other CSS vehicles look very much alike the world over. Compounding the problem, CSS vehicles are not included in the training and audiovisual, support center (TASC) armored vehicle recognition cards.

The Effects of Fratricide

Fratricide can have a profound effect on a unit. It seriously affects the unit's ability to survive and function and increases the risk of mission failure. Observations of units experiencing fratricide include the following consequences:

- Hesitation to conduct limited visibility operations.
- Loss of confidence in the unit's leadership.

- Increase of leader self-doubt.
- Hesitation to use supporting combat systems.
- Oversupervision of units.
- Loss of initiative.
- Loss of aggressiveness during fire and maneuver.
- Disrupted operations.
- Needless loss of combat power.
- General degradation of cohesion and morale.

Fratricide Reduction

The following measures, if practiced and used, can significantly reduce the chances of fratricide:

- Rehearsals at all levels are the key to understanding the concept of the operation and reducing the chances of fratricide.
- Soldiers and leaders must be educated with the safety and tactical knowledge that will prevent the handling of unexploded ordnance. This is especially critical given the increase in submunitions in today's weapons.
- Vehicle identification training is essential.
- Land navigation training must be stressed at all levels. Soldiers and leaders need to be able to determine their positions accurately.
- Units must practice and use correct challenge and password procedures and communicate with their support units so they know when to expect resupply vehicles.
- The proper use of reconnaissance units can keep commanders at all levels aware of enemy movements and positions, thereby lessening the chances of unexpected engagements.

In short, if we know where we are and where our friends are in relation to us, we can reduce the probability of fratricide. If we can also distinguish between friend, neutral and enemy, we can reduce the probability even more. Preventing fratricide is everybody's business.

The basic information for this article was obtained from Newsletter 92-4, *Fratricide: Reducing Self-Inflicted Losses*, dated April 1992, published by the Center for Army Lessons Learned (CALL), U.S. Army Combined Arms Command (CAC), Fort Leavenworth, KS 66027-7000.



CPT Robert R. Jones has a bachelor of arts degree in business administration from the University of Montana, where he was also the Distinguished Military Graduate. He is also a graduate of the Quartermaster Officer Basic and Advanced Courses. He has served previously as Platoon Leader, Support Squadron, 3d Armored Cavalry Regiment, during Operation Desert Shield/Storm. He is currently assigned to the Division Support Command, Fort Riley, Kansas.

Class IX Projects

CPT William M. Wheatley

Editor's Note: The Repair Parts System Redesign is a U.S. Army Quartermaster Center and School (USAQMC&S) initiative to improve the Class IX (repair parts) system throughout the Army. Because of the size and complexity of this project, a series of articles on Class IX is appearing in the *Quartermaster Professional Bulletin*.

The USAQMC&S, the Army's proponent for retail Class IX (repair parts), currently is involved in 15 distinct Class IX projects. Many resulted from lessons learned and shortcomings highlighted during *Operation Desert Storm*. This article provides a short summary of each program.

A principal complaint echoed throughout Southwest Asia was that authorized stockage lists (ASLs) and prescribed load lists (PLLs) were not responsive to wartime re-

quirements. Also, many Reserve Component units deployed without any ASLs or PLLs. Since repair parts stocks are based upon the historical demands placed upon them, it follows that ASLs developed from peacetime demands would differ from those required in war. The dilemma remains: how to minimize inventory investment to conserve diminishing resources yet maintain sufficient repair parts to sustain contingency operations. The following six initiatives (Figure 1) assist in

solving this problem.

- **Contingency Corps Parts Initiative (CCPI)** - a USAQMC&S effort to identify repair parts necessary to sustain specific units or densities of equipment (Active and Reserve Components) during the early stages of a contingency. The project develops a combat ASL, containing direct support (DS) and organizational level repair parts, for units designated as part of the U.S. Army Forces Com-

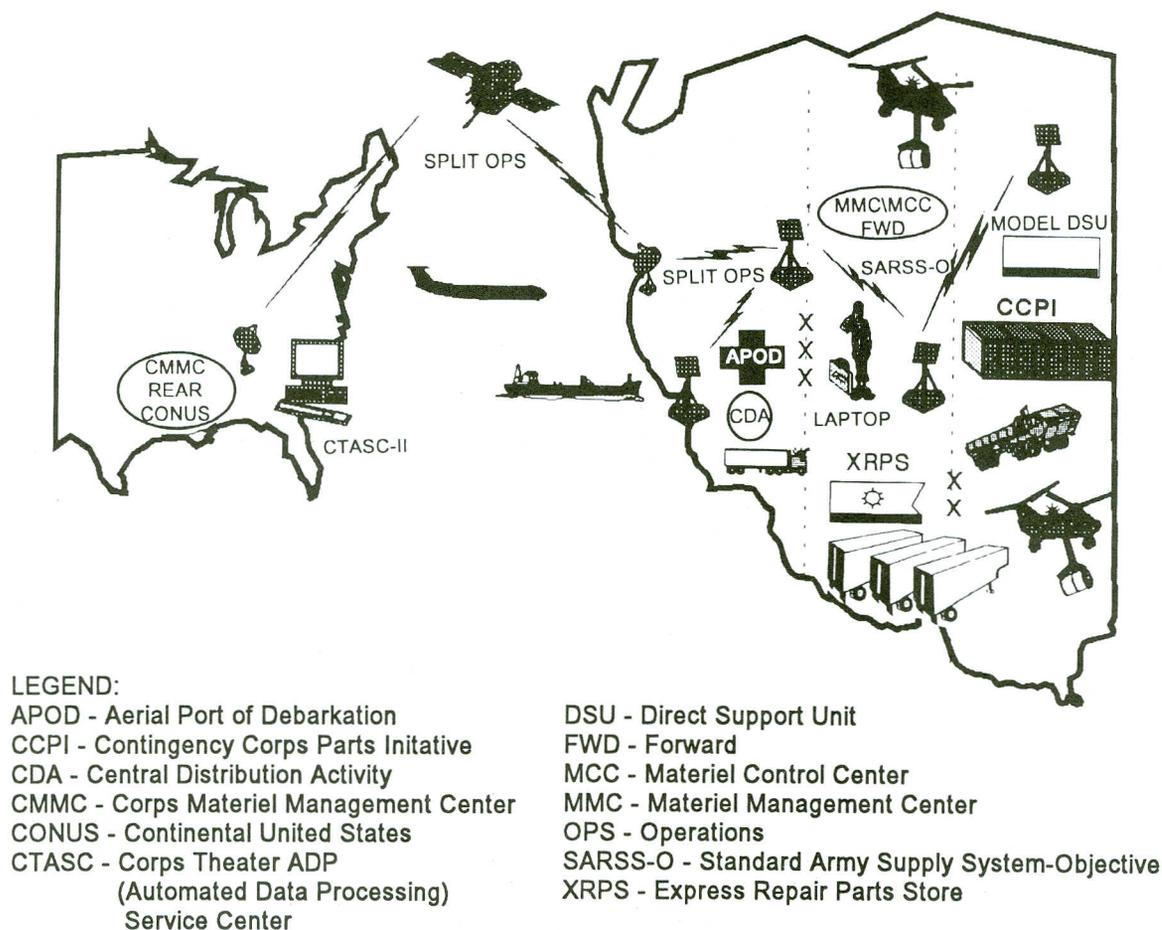


Figure 1. Quartermaster Class IX (Repair Parts) Initiatives

mand (FORSCOM) five-plus division contingency corps. These stocks will be (1) supplements to current peacetime ASLs, (2) designated for individual units or specific densities of equipment, (3) derived using a readiness-based logic and a wartime operations tempo, (4) sufficient to sustain combat operations for 30 days, and (5) stored at the depot level. When a unit activates for deployment, these stocks will be prepared for shipment and sent to the point of debarkation (POD) or port of embarkation (POE) as designated by the receiving unit.

- **Corps Parts Store/Express Repair Parts Store (XRPS)** - a USAQMC&S effort to reduce PLLs and ASLs at division level and establish a robust repair parts supply activity at the corps level. This repair parts store will (1) be the primary source of repair parts in corps/theater, (2) provide rapid distribution of supplies, (3) have asset visibility over all supplies down through DS level, and (4) allocate critical supplies according to corps/theater Army commander's guidance. The XRPS is a two-part initiative. The first component develops a retail repair parts store that contains noncombat-essential, nondeployable repair parts such as safety, legal, climatic and deferred maintenance items. The second component contains the deployable, combat-essential (essentiality code C) repair parts that had few or no demands at lower levels (provisioning, mandatory parts list (MPL), seasonal, critical parts for low density equipment, and other low demand parts). The XRPS will be the sole source of supply for repair parts on its ASL. The objectives of this initiative are to reduce PLLs and DS ASLs, save money, maintain readiness,

improve mobility, and reduce total Army inventory investment. The first XRPS is being established by the 249th Repair Parts Company for the XVIII Airborne Corps at Fort Bragg, NC. This system operates like a combat NAPA Auto Parts store system.

- **Model Direct Support Unit (Model DSU)** - a USAQMC&S initiative to establish a specific DSU to serve as a model for all Army DSUs. The facility tests and evaluates the latest technologies, management innovations, policies and procedures. The 503d Maintenance Company, 1st Corps Support Command (COSCOM) will implement the Model DSU concept. The unit has received and rewarehoused its deployable ASL into the new equipment deployment storage systems (EDSS). The unit is also the first to receive and test the new materiel release order (MRO) control system (MROCS). This system incorporates the latest hand-held computers/laser scanners with radio frequency connectivity to host computers and printers worn on the hip to provide real-time MROs, bin tickets, labels and receipt processing. The system also provides transportation documents, parts tracking and management reports. This project is likened to a tactical WAL-MART store.
- **Central Distribution Activity (CDA)** - a USAQMC&S initiative to develop a corps-level central distribution point. The CDA serves as the central receiving facility for all incoming shipments and all lateral issues or redistribution actions between supply support activities (SSAs). The CDA acts as the hub for all supply distribution actions. Commercial and military transporters deliver shipments to customers on both a scheduled and as-required ba-

sis. This project is similar to a combat United Parcel Service system.

- **Split Operations concept** - the most technically complex effort. Under this project, the corps materiel management center (MMC) operates a nondeployable mainframe computer capable of supporting a 5 and 2/3-division corps. The MMC deploys as few as 14 personnel (instead of 389) with laptop computers and satellite communications to a theater of operations. Materiel managers and other MMC personnel and equipment remain in the continental U.S. (CONUS) and perform all required functions without having to deploy. This saves numerous C-141 sorties and allows operations to be established in 3 days versus 45 days. The 2d MMC, 1st COSCOM is testing the split operations concept for the XVIII Airborne Corps.
- **Standard Army Retail Supply System - Objective (SARSS-O)** - a multilevel supply management/stock control system that replaces the obsolete Direct Support Unit Standard Supply System (DS4) and Standard Army Intermediate Level Supply (SAILS) programs. SARSS-O consists of three echelons. SARSS-1 is employed at the DSU/GSU storage site. Its major functions include request for issue, receipt processing, denials, follow-ups, status, reconciliation and inventory. Under SARSS-O, the warehouse officer in charge (OIC) is the accountable officer. SARSS-2A operates at the division/separate brigade level. It performs the functions of asset visibility, management control and reporting, referrals, financial obligation, and reparable management. SARSS-2B runs at the corps/installation level. It performs catalog updates, document history, demand his-

tory and demand analysis. Major advantages of SARSS-O over older systems include multibatch processing for near real-time requisitioning processing/system updates, corps/theaterwide lateral issues/referrals, and total asset visibility of all corps/theater stocks.

The other Class IX related initiatives include:

- **Sparing To Availability (STA)** - a modeling technique that uses a readiness-based stockage logic to develop an ASL. The program ties the stockage of parts directly to the availability of weapon systems. The objective is to meet readiness goals at least cost. The program trades off the stockage of a few high-dollar major assemblies for thousands of lower-cost piece parts. The concept was tested in the 2d Armored Division and the National Training Center. Results show that the number of lines grows to over 10,000 but that cost, weight and cube may be reduced over DS4 ASLs. Comparisons with SARSS-O ASLs are being conducted now. Preliminary results indicate that SARSS-O establishes less expensive ASLs than STA. Although the logic within STA shows promise, the system requires further development.
- **Desktop DS4** - a fielding plan which replaces the obsolete DAS3 van and associated hardware with a more powerful (in terms of processing speed and memory capacity) desktop personal computer (PC). The new hardware reduces DS4 processing times by 75 percent, reduces set up time after deployment to one hour, and saves millions of dollars in DAS3 operating and maintenance costs. Desktop DS4 is a temporary upgrade and will be replaced by SARSS-O in all

units (Active and Reserve) by 1997.

- **Objective Supply Capability (OSC)** - a project that employs an interactive near real-time method for requisition processing that joins various retail and wholesale echelons into a single integrated supply system. OSC reduces order time from days to minutes by relying on an asset visibility file loaded into a communications gateway. Requests for issue from Unit Level Logistics System (ULLS) and Standard Army Maintenance System-1 (SAMS-1) users are sent directly to the gateway, located in St. Louis, MO, for processing. The gateway rapidly determines the best source for satisfying the requisition and immediately directs issue from the supporting unit, from redistribution within a specified area, or from a wholesale activity. OSC also provides immediate status to the customer and total asset visibility of Army stocks down to DS level.
- **Readiness Based Maintenance (RBM)** - addresses improvements in maintenance and distribution of reparable assets to increase weapon system availability. RBM incorporates a mathematical model that determines a combination of maintenance actions and asset distributions to maximize the probability of achieving a weapon system's established availability goal. It is a decision support system to assist maintenance schedulers in determining which spares to (1) repair immediately, (2) defer repair or (3) pass to higher echelon for repair. The model also incorporates a "buy versus repair" logic and outputs a recommended sequence of distribution actions for supply managers to implement. RBM is currently being tested at the 4th Infantry Division.
- **Integrated Sustainment Maintenance (ISM)** - a concept which consolidates all maintenance personnel, equipment and facilities above DS level under a unified command and control structure, such as the U.S. Army Materiel Command (AMC). The ISM manager will be responsible for structuring, deploying and managing maintenance personnel and units to better use total Army maintenance assets, provide quicker turnaround of repairs, perform faster and better diagnostics, conduct integrated training, execute maintenance tailoring, and produce an overall cost savings. Supply management will be affected because there will be a redistribution of where assets are repaired. This redistribution will influence stockage levels and distribution of supplies.
- **Single Stock Fund (SSF)** - a Strategic Logistics Agency (SLA) initiative to provide more effective financial management of the logistics system. It promotes the Army's drive to integrate the wholesale and retail echelons into a single logistics system. SSF proposes the consolidation of all supply management and funding, above the PLL level, under a unified command and control structure such as AMC. Phase 1 of the two-phased implementation plan transfers all Army inventories, supply personnel, and facilities at GS/installation level and above to a single national manager. Phase 2 transfers all Army inventories, supply personnel and facilities at DS level to the national manager. SSF will be tested at III Corps and Fort Hood, TX.
- **Total Distribution System (TDS)** - a multiproponent program designed to examine the entire distribution process and develop a distribution system with asset visibility and control

from factory to foxhole. Automation, Standard Army Management Information Systems (STAMIS), field mobility, interface between the wholesale and retail systems, direct vendor delivery, Just-In-Time inventory practices, force structure, containerization, transportation and communications are some issues being addressed in this program.

- **Total Asset Visibility (TAV)** - provides central and distributed visibility over all Army assets using communication gateways to make assets available for redistribution and postpone procurement. TAV is designed to maintain visibility of stationary as well as assets in transit from the factory to the foxhole. The goal is to substantially reduce existing inventories and maintain tight control over future stocks. Asset visibility is built into communication gateways and remains accessible to on-line requirements determination systems and to logisticians who use gateways to minimize inventory investment yet maintain readiness.
- **VISION (Visibility of Support Options) Assessment Sys-**

tem (VAS) - an initiative which uses an automated decision support system to project weapon system availability based upon operational tempo (OPTEMPO), on-hand Class IX assets, and repair capability. The program identifies potential problem parts and recommends buy actions. This system produces operational readiness (OR) rates throughout a given time frame/scenario and can provide weapon system availabilities based upon given budgets or budgets based upon given OPTEMPOs. The goal is to enhance operational effectiveness through better logistics decision making in the Class IX arena and to assist planners in devising effective support concepts to meet different operational requirements.

The USAQMC&S Class IX Task Force is involved in a number of other projects. One service we provide to the field is free analytical skills and assistance. We have analyzed the ASLs for four divisions (the fifth is on the way) and 12 nondivisional DSUs, offering recommendations on adds, deletes, changes and ASL restructuring. We

can also provide further information on the initiatives highlighted in this article and projects under development by other activities. For more information or assistance, contact the USAQMC&S Class IX Task Force, DSN: 687-6681/6678/6674. Address: Commander, USAQMC&S, ATTN: ATSM-CDC (Class IX Task Force) Fort Lee, VA 23801-5037. PROFS: LEE2 (REIDJ) or (PENNINGM).



CPT William M. Wheatley has a bachelor of science degree in business commerce from Rider College, Lawrenceville, New Jersey. He also holds master of science degrees in systems management from the University of Central Texas and in logistics management from the Air Force Institute of Technology. He is a Certified Professional Logistician and a graduate of the Quartermaster Officer Basic Course, Quartermaster Officer Advanced Course, Combined Arms and Services Staff School, and Airborne School. His previous assignments include Shop Officer, Supply Platoon Leader, Supply Management Officer, Company Commander, Battalion S3, and Logistics Staff Officer. He is currently attending Command and General Staff College, Fort Leavenworth, Kansas.

TRADOC 'Good Ideas' Program

The Army, along with sister services and civilian organizations, has suggestion programs to get ideas for saving resources and improving methods and living and working conditions. Only one activity attempts to gather all these successful ideas and make them available to everyone: the U.S. Army Training and Doctrine Command's (TRADOC's) "Good Ideas" program. The program reaches outside of TRADOC, as far away as Guantanamo Bay, Cuba, and the United Kingdom.

Currently, ideas are logged and stored in bulletin boards on the

PROFS message system. The boards are also accessible by E-Mail. Both systems are widely used by the Army, but not yet by all sister services. A Department of Defense (DOD) computer conversion will let more people use the service. The "Good Ideas" sections contain all the ideas gathered since the program began, more than 400 innovations.

For example, early in 1992, an idea in the system concerned a TRADOC installation that had made arrangements with the federal prison system to use convict labor for grounds maintenance. It cost

less than using soldiers, civilian employees or contractors.

One other installation has since made similar arrangements with federal prisons in its state, and four others are in the midst of adopting the program. One installation saved about \$1 million through the prison labor program.

Another popular idea came from a sergeant at Fort Jackson, SC. He devised a computer program that made it easier to book travel for trainees going home for Christmas holidays during *Operation Exodus*. All training centers now use the program.

ULLS-S4 — The Commander's Aspirin for Property Accountability

CPT Todd Pisarski

How many commanders and supply sergeants have you seen burning the midnight oil attempting to find a widget in mounds of supply records? Or perhaps you are a commander who would rather spend more time performing your daily mission instead of worrying about a report of survey that you may have to initiate against yourself.

A tool does exist to manage property below the property book level. Having served as a battalion S4 for 21 months, I saw how the Unit Level Logistics System-S4 (ULLS-S4) can give commanders a tool to manage their property successfully.

Paperless System

The ULLS-S4 is an automated information system designed to help commanders manage their supply needs. ULLS originated from an initiative in the 24th Infantry Division to create a Tactical Organization Paperless Service Support System (TACOPS). Currently, the U.S. Army Combined Arms Support Command (USACASCOM) at Fort Lee, VA, manages ULLS-S4.

ULLS-S4 manages property below the property book level. Company commanders now have an information system that is menu-driven and manages the property records without flaw. Most important, ULLS-S4 is easily understood by the computer illiterate.

Why should commanders use ULLS-S4? The system saves hours upon hours reviewing hand receipts and shortage annexes for completeness and accuracy.

Once commanders convert to ULLS-S4, they can reallocate resources. One of the most important resources we have is time. Time spent fumbling through paperwork can be shifted to planning, "face-time" with soldiers or focus

upon the mission. The accuracy and efficiency of an automated information system goes far beyond the human element. Supply sergeants who use ULLS-S4 have time to support the company's platoons, instead of retyping a hand receipt because of one or two typographical errors.

ULLS-S4 supports the three key elements of operating a successful supply room: hand receipts, annexes/component listings, and commander's reports. Hand receipts assign direct responsibility to the user of property. Without accurate and organized hand receipts the commander loses accountability. The supply sergeant builds a hand receipt holder file and assigns property to each hand receipt holder. The hand receipts are computer generated with all the information a DA Form 2062 (Hand Receipt) should have.

By regulation, shortage annexes should be kept on file for each piece of equipment with required components and a consolidated shortage annex for the same equipment in the company. Like the hand receipts, the shortage annexes are computer generated. The two advantages of ULLS-S4 are the accuracy and the savings in time compared to updating the hand receipts and annexes by hand. Once created, changes in these forms require a few simple keystrokes and the reprinting of the hand receipt or annex.

Offers Commander Reports

The most important items that ULLS-S4 offers a commander include the commander reports. These reports contain exceptional data that should raise a red flag for the commander. Most important is the Commander's Imbalances Report. This report is a printout of all

property not hand receipted down to the user level. If the equipment is not hand receipted down, the commander most likely will lose accountability for that property.

Why spend hours with columnar paper or another self-devised matrix and hand-written hand receipts that are not legible, trying to figure out if all the property you signed for has been subhand receipted? ULLS-S4 is the answer. The Commander's Hand Receipt Summary is a printout of all the commander's property and indicates to which subhand receipt the property is assigned.

Willing To Convert

Commanders, supply sergeants and property book officers have the responsibility to make ULLS-S4 work. The commander must be willing to convert to ULLS-S4 to manage the property accountability functions. Once accepted, the commander must give the supply sergeant time and a computer. A few days are required to set up the data base and to create all the hand receipts and annexes, depending on the size of the commander's hand receipt.

Supply sergeants have the responsibility to create the data base, maintain the files, and provide the commander with any required information. They must keep the commander informed. The property book officer has the responsibility to advise and assist the commander with property accountability. At least once a month, the property book officer should provide the commander with a disk of hand receipt data to be uploaded into ULLS-S4. This will allow the supply sergeant to make timely adjustments to the subhand receipts.

The data base is built using several methods. All the hand re-

ceipt data should come from Standard Property Book System-Redesign/Standard Property Book System-Table of Distribution and Allowances (SPBS-R/SPBS-TDA). ULLS-S4 interfaces with SPBS. This should be done monthly to keep data timely. Manual input is another method to build the data base. Manual input is required when property is not listed on the commander's hand receipt from the property book officer. For example, when a truck is loaned from another unit, the supply sergeant can assign that truck to a subhand receipt.

Data for annexes and component listings is created using manual input and a component listing of Army equipment. The component listing of Army equipment currently has approximately 70 items of the most common end items. All other annexes or component listings must be manually input.

File maintenance is a key factor in using ULLS-S4 successfully. The supply sergeant should update files weekly. Any changes in property accounts such as additions or deletions of equipment, transferring equipment among subhand receipt holders, or lateral transfers should be posted weekly. The commander should review the imbalance and summary reports to ensure changes are posted every time data is up-

loaded from SPBS. Once the upload is complete, the program will prompt the user who wants a printout of any changes posted to property accounts on SPBS. This allows a supply sergeant to double-check to see if all transactions were posted to the property accounts.

Easy Training

Using ULLS-S4 requires certain amount of training. There is no formal school training on ULLS-S4. Commanders who want to use ULLS-S4 can easily train soldiers to use ULLS-S4. Commanders have the responsibility to train their soldiers on their equipment and systems. ULLS-S4 comes with all the documentation needed to operate the program and also a sample company's files. The commander must set time aside to train the soldiers. An introduction to computers and instruction on how to gain access to ULLS-S4 menu screens are required. ULLS-S4 is menu-driven and simple.

Supply sergeants have the responsibility to learn how to operate ULLS-S4 and teach assistants. This requires hand-on, performance-oriented training. Supply sergeants should first read the documentation and practice with the sample company to gain the fundamentals. At first, property book officers

should work closely with the supply sergeants until the hand receipts and annexes are created. The property book officer can provide additional basic computer training to make ULLS-S4 functional.

The Army plans to expand the functions of ULLS-S4. ULLS-S4 will maintain a document register and interface with the Standard Army Retail Supply System-Objective (SARSS-O). The development will also integrate the supply and financial functions.

To request a copy of ULLS-S4, write to Commander, USACASCOM, ATTN: ATCL-SSB (CAO), Fort Lee, VA 23801. For technical assistance on existing ULLS-S4 programs, call DSN 687-0711.



CPT Todd Pisarski has a bachelor of science degree in accounting from Bradley University in Peoria, Illinois. He is also a graduate of the Quartermaster Officer Basic and Advanced Courses, Aerial Delivery Materiel Officers Course and Airborne School. His previous assignments include Supply and Service Platoon Leader, Supply Company Executive Officer, and Battalion S4, 528th Special Operations Battalion, Fort Bragg, North Carolina. Currently attending the Petroleum and Water Officers Course, he will be assigned to the 25th Infantry Division (Light).

Quartermaster Professional Bulletin Objectives:

- Reinforce the training base.
- Reinforce skills.
- Introduce new concepts.
- Demonstrate the "how to."
- Provide a medium for professional dialogue.
- Stimulate professionalism.
- Encourage study and innovative thought.
- Provide a forum for commandants to communicate to the field.

Desktop DS4: A Step in the Right Direction

LT James S. Moore

Each day at the direct support (DS) supply support activity (SSA) level, soldiers process numerous customer unit supply requests into the Direct Support Unit Standard Supply System (DS4) software. DS4 is designed for managing Class II (general supplies), III packaged (petroleum, oils and lubricants), IV (construction and barrier materiel), VII (major end items), and IX (repair parts) at the DS level. The DS4 automates the routine management functions of supply and stock control. The DS4 at the DS SSA level passes customer unit requests to the next higher source of supply, the Corps Materiel Management Center (CMMC) or Tables of Distribution and Allowances (TDA) Installation Director or Logistics (DOL). The CMMC or DOL sends magnetic tape output from DS4 for processing through the Standard Army Intermediate Level Supply System (SAILS). Unit requests continue through the supply system if the requisition cannot be filled along the way.

Malfunctions

The DS4 software, a Department of the Army (DA) Standard Automated Management Information System (STAMIS), was operated on the Decentralized Automated Service Support System (DAS3) computer van (Model A - Nondivisional) and (Model B - Divisional) from 1980 to 1992. The software does not cause many problems, but the aging computer hardware in the DAS3 van did not always operate properly. Often the computer malfunctioned in the middle of running the daily cycle process or other key processes. The DAS3 computer was the heart and soul of processing customer requests at the SSA. When the DAS3 computer malfunctioned, requests

were put on hold, processing was delayed, and personnel spent extra hours running the delayed daily cycle process and other required cycles.

As a supply platoon leader for the 412th Support Battalion in Vicenza, Italy, I supervised the SSA (nondivisional). The SSA managed Class II, III (packaged), IV, VII, and IX supplies. I received calls from the accountable officer or supply system technician explaining that the computer was malfunctioning and the computer repairer (military occupational specialty (MOS) 39D) was trying to fix the problem. Luckily, our repairer was very knowledgeable. Our unit spent thousands of dollars each fiscal year keeping that piece of machinery operational. Numerous manhours went to corrective maintenance, instead of processing supply requests and providing timely supply support to our customer units.

Desktop Computers

The DAS3 computers have been in the Army inventory since 1980 and have served their purpose well. Today's changing technology has helped the Army find ways to make managers' and soldiers' jobs easier by improving the automated systems. All soldiers must become knowledgeable of the automated systems related to their MOS. Use of automated systems will broaden their knowledge and improve their job skills.

One way the Army has helped to make the SSA's job easier has been the conversion of DS4 to a desktop (DS4-DT) computer system. With the desktop computer, the Army will reduce the large expense in repair parts and maintenance to keep the DAS3 computer operational. This high cost was evident during *Operation Desert*

Shield/Storm. Replacing two computer "mother" boards in the DAS3 computer costs the same as the entire Desktop DS4 system in one SSA. In April 1992, the transition of the DS4 system to a desktop computer system was approved for Armywide distribution. This meant going from a centralized minicomputer system to a type of distributed microcomputer system.

DS4 Transition

The Desktop DS4 was initially tested in the field by helping the 3d Infantry Division (ID), Germany, recover from the major workload caused by Army reorganization. The 3d ID acquired additional brigades that drastically increased the number of customer requests processed by the DAS3 computer. The DS operations of the 3d ID were hampered by the enormous workload. The 3d ID had to compensate with around-the-clock computer operations to process a backlog of over 100,000 transactions. The Desktop DS4 decreased the workload drastically. In less than five days after the DS4 transition, the 3d ID could process its daily cycle in a normal work day. The system worked so well that it was fielded Armywide.

The transition of DS4 to a personal computer required minimum changes. No functional changes were made to the current DS4 software. Technical changes in the software gave DS4 the capability to operate on a Microsoft disk operating system (MS DOS). The DAS3 computer only enabled the SSA to receive output in the form of printed reports after the lengthy daily cycles ran. The Desktop DS4 hardware includes one production workstation computer and three manager workstation computers. Supervisors and item managers now make changes

to the accountable records system with their keyboards. They do not have to print large reports and search for errors. They can view all output on their monitor screens. This saves time and money.

To field this new system, the U.S. Army Information Systems Software Development Center Lee (USAISSDCL) decided to try a new method. They implemented the "Starburst Fielding Method." This method required 10 units being transitioned to send four DS4-qualified personnel each to a regional training site. A Systems Transition Team from USAISSDCL, U.S. Army Combined Arms Support Command (USACASCOM), and Program Manager-Tactical Management Information Systems (PM-TACMIS) operated the site. The transition process consisted of approximately 40 hours of training on the hardware, DS4 software, and the Tactical Unit Financial Management Information System (TUFMIS). Active duty units and National Guard Bureaus also supported this successful process. The Systems Transition Team conducted the DS4 file transition and data validation, and prepared the Desktop DS4 for unit issue. An in-

country help desk was set up for the units in Germany, Italy and Korea. The units could call if they had problems with the system after reaching home station. Units in the continental United States (CONUS) could call the customer assistance center of USAISSDCL. The system was fielded at Starburst fielding sites in Europe, Korea and Hawaii during September to October 92. CONUS Starburst fielding was conducted at six different sites from November 92 to February 93, with approximately 40 units per site. In total, over 240 Active, Army National Guard and Reserve Component units were fielded the Desktop DS4 system. Approximately 99 percent of the scheduled units Armywide have been fielded. Only a few units remain for fielding on an individual basis.

Interface Continues

The DS4 transition to a desktop computer will not affect its current interface capability with other automated systems. The system will continue to interface with the Unit Level Logistics System (ULLS), Standard Army Retail Supply System Interim (SARSS1-I), SAILS,

Standard Property Book System-Redesigned (SPBS-R), and the Objective Supply Capability (OSC).

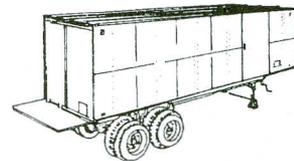
During this time of Army reduction and budget cuts, commanders and supervisors must look for ways to work more efficiently with fewer personnel and resources. Using automation to improve operations and enhance capabilities will save considerable manhours, personnel and dollars. Automation also will increase quality, efficiency and productivity.

The Army will have significant cost savings and benefits with the Desktop DS4. The entire Desktop DS4 project received \$8.2 million for development and fielding. USAISSDCL and other members of the Desktop DS4 project performed their mission nearly \$2 million under budget and completed it on time. Over the next 5 years, the Army is expected to gain over \$170 million in benefits. The following are some intangible benefits:

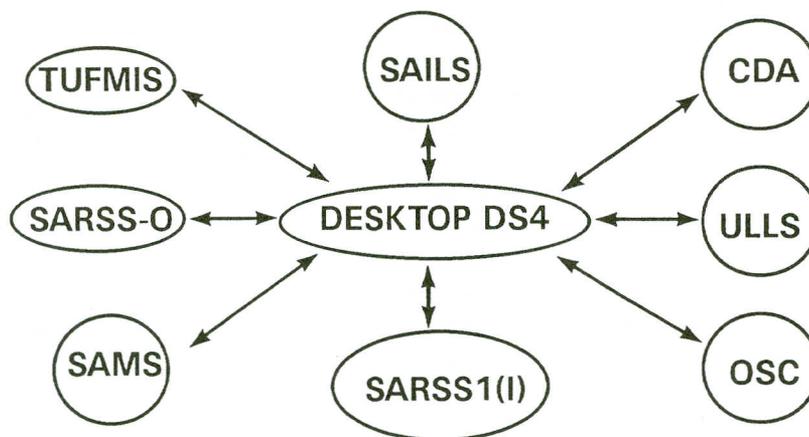
- **Improved deployment capability** reduces set up time and transportation costs. It cost approximately \$30,000 to deploy a DAS3 van to *Operation Desert Storm*. The same move-



Direct Support Unit Standard Supply System (DS4)



System Interfaces



LEGEND:

CDA - Catalog Data Agency
 OSC - Objective Supply Capability
 SAILS - Standard Army Intermediate Level Supply System
 SAMS - Standard Army Maintenance System

SARSS1 (I) - Standard Army Retail Supply System 1 (Interim)
 SARSS - O - Standard Army Retail Supply System - Objective
 TUFMIS - Tactical Unit Financial Management Information System
 ULLS - Unit Level Logistics System

ment for the Desktop DS4 costs approximately \$200. Units will be able to pack a Desktop DS4 system for movement in less than 15 minutes. The Desktop DS4 can be packed in a protective foam case and loaded on the back of a cargo truck. The tractor used to pull the DAS3 van will become a transportation asset for other missions.

- **Reduced staffing** releases soldiers for other mission-essential tasks. For example, active duty divisional units formerly used an average of 14 soldiers to process DS4 on a DAS3 computer. Now, the same units use an average of seven soldiers. Managers use these personnel in other areas, such as the SSA's storage, turn-in and issue sections.
- **Savings** of \$2.62 million in maintenance costs are expected when the DAS3 computer phases out. The U.S. Army Communications Electronics Command discontinued an Armywide DAS3 maintenance/repair parts contract effective 1 Oct 92.
- **Daily computer cycle** run time reduces by approximately 25 percent to 83 percent. Depending on the file volume, this reduces 18-plus hours of computer cycle time to an average 4-plus hours. Fewer personnel will need to run the cycle on the evening shift. Managers also will be able to use these personnel more effectively during daily operating hours.
- **Paper costs** will decrease. There is no need to print large reports. Work is done on the Desktop DS4 keyboard and monitor. Most reports are stored permanently on magnetic media and viewed on the monitor.
- **The centralized transition fielding concept**, "Starburst

Fielding Method," is expected to save money. Visiting approximately 250 individual fielding sites would have cost over \$3 million and taken approximately 5 years.

Survey Favorable

Responses to a survey sent out by the DS4 Division of USAISSDCL to users of the Desktop DS4 have been favorable. U.S. Army National Guard, Active and Reserve Component units commented on the reduced time for various DS4 processes. Processes that took hours on the old system now take minutes on the Desktop DS4. Desktop computer operators can begin daily cycles at the end of the day and finish hours ahead of the old schedule in the DAS3 van. The maintenance time and dollars spent on the DAS3 van are things of the past. A minimal amount of operator maintenance is required for the Desktop DS4. Each system is covered by warranty and maintenance contract. Another favorable response from using units is the reduction of personnel required to operate the system. Some units decreased system operating personnel by approximately 50 percent.

The Desktop DS4 was a very innovative and creative idea by Army personnel at Fort Lee, VA. All SSA personnel should understand how this new system will improve operations. This system will save man-hours, dollars and time and will allow personnel to do other things. The system will enable managers to increase the productivity and efficiency of operations as a whole.

As technology changes, so must the role of soldiers. Soldiers must be able to survive in the world of automation. Automation should not be seen as a hindrance, but as a way to improve work. Soldiers must learn the capabilities of various automated systems in their MOSs and be familiar with how to work them. With the reduction of

forces and consolidation of MOSs, soldiers must be able to understand all areas of their MOSs.

From the consolidation of supply MOSs 76C, 76P, 76V and 76X to 92A (Logistics Automation Specialist), soldiers in advanced individual training (AIT) at Fort Lee will receive a variety of automation training. An AIT soldier with MOS 92A will receive approximately 64 hours of ULLS training, 66 hours of SARSS training, 28 hours of DS4 training, 135 hours of storage/materials handling equipment training, and 31 hours of subsistence/Class I (rations) training. The 92A AIT soldier will get a good overview of automated systems in these areas. Despite the AIT experience, most of the soldiers' training will be on the job at their new units. Unit commanders and supervisors will ensure necessary training on the various systems. Unit-level training will improve the soldiers' overall MOS skills. This will make them better soldiers, better 92As and better Quartermasters.

Anyone who has questions or needs more information about the Desktop DS4 system may contact the following: USAISSDCL, ATTN: ASQB-ILS-D, Stop L74, Fort Lee, VA 23801-6065, or USACASCOM, ATTN: ATCL-SSD, Fort Lee, VA 23801-6000.



LT James S. Moore has a bachelor of science degree in business information systems from Virginia State University in Petersburg, where he was also Distinguished Military Graduate, and a master's degree in public administration from Troy State University. He also is a graduate of the Quartermaster Officer Basic and Advanced Courses, and Supply Support Activity Management Course. He has served previously as Plans and Operations Officer in the 22d Area Support Group, and Supply Platoon Leader in the 412th Support Battalion, Vicenza, Italy. Currently a student in the Subsistence Officers Course, he will be assigned to Fort Lewis, Washington.

Ground Guides — A Need for Safety

CPT Michael W. Swiney

As the new Executive Officer for A Company, 123d Forward Support Battalion, I was in the motor pool when suddenly I heard the sound of a crash and someone yelling to call the fire department. I told my maintenance non-commissioned officer (NCO) to place the call while I went outside to check out the situation. On site, I saw fuel on the ground that easily covered a 75-foot area. An experienced Heavy Expanded Mobility Tactical Truck (HEMTT) cargo driver turned too sharply and caught the HEMTT's fuel tank on the front bumper of a parked five-ton cargo truck. The driver had failed to operate a military vehicle properly by not having ground guides present. This accident luckily resulted only in a vehicle being damaged and fuel loss and not the loss of life.

Many accidents and injuries result in the misuse of ground guides while in garrison or a field environment. Soldiers can prevent accidents and injuries by knowing the standard and enforcing the standard. The Quartermaster leaders' responsibility is to develop procedures and safety rules to prevent this type of safety accident. The Quartermaster soldiers' responsibility is to understand and perform to those safety standards. Safety is the responsibility of all soldiers.

What are the standards for ground guiding tactical vehicles? Army regulations (ARs) (ARs 600-55, Motor Vehicle Driver and Equipment Operator Selection, Training, Testing and Licensing, and AR 385-55, Prevention of Motor Vehicle Accidents) and field manuals state most standards for ground guides. Several problems exist among these references. Variations in the standards and the performance measures for ground guiding are not stated.

The references fail to answer the following questions:

- How does a soldier ground guide?
- What are the safety procedures involved in ground guiding?
- What is the standard for hand and arm signals used in ground guiding tactical vehicles?

Soldiers need standards to help prevent injury to the soldier and damage to equipment.

How does a soldier ground guide? There is no standard answer to this question. Every unit has a different technique. Soldiers usually combine safety measures and known hand and arm signals to ground guide. The result of not having an Armywide standard is injured soldiers and/or equipment damage.

What safety procedures involve ground guides? The following is a list of suggested safety procedures and rules:

- Before starting a wheeled or tracked vehicle, a crew member will walk completely around the vehicle to ensure that no one is in danger.
- When the vehicle's engine is running, the operator will be at the controls.
- Keep 10 meters between ground guides and vehicles (front left side).
- Require ground guides when vehicles enter bivouac

areas. The best method to guide a vehicle at night into a bivouac area is to stop the vehicle, move forward to be sure the way is clear, and then signal the vehicle to move forward. As the vehicle advances forward, repeat the process. (Never walk backward to guide a vehicle.)

- Normally require one ground guide for wheeled vehicles. However, use two ground guides if backing a wheeled vehicle when vision is restricted.
- Require ground guides front and rear for tracked vehicles during movement within an assembly area. Guides must be able to see each other, and one must be visible to the driver.
- Use flashlight signals and hand and arm signals as the basic methods for ground guiding. Voice signals between a ground guide and driver can be misunderstood.
- Give signals to only one person. Ensure that everyone involved understands who will give the signals and who will receive them.
- Remain out of the vehicle's direction of travel.

The U.S. Army Safety Center, Fort Rucker, AL, produces a pamphlet titled Ground Guide Safety Procedures. This pamphlet provides excellent safety procedures for ground guiding during day (hand and arm signals) and night operations (flashlight signals).

Training conducted to standard in garrison or in a field environment is the key to success of the Army warfighting skills. The first priority of any training is the welfare of soldiers. Commanders must find and determine ways to protect soldiers and equipment from accidents during training. Some ways a commander might emphasize safety in training are to incorporate safety procedures for ground guides in the form of a task. Add this task when conducting the testing for the Soldier's Manual of Common Tasks or implement into a unit drivers' training program. Conducting this task to a standard will force soldiers to retain these procedures.

Since every soldier is either a driver or a passenger, soldiers need to know how to ground guide. Command emphasis and noncommissioned officer (NCO) supervision combined with proper training to a standard can prevent ground guiding accidents. Remember, soldiers are our most important asset and their safety comes first.

For more information on ground guide safety procedures, contact your Installation Safety Officer or the U.S. Army Safety Center, Fort Rucker, AL 36362-5363.



CPT Michael W. Swiney is a graduate of Livingston University and the Marion Military Institute in Alabama. He is also a graduate of the Field Artillery Officer Basic and Quartermaster Officer Advanced Courses, and Airborne School. He has served as Fire Support Officer, Battalion Ammunition Officer, Service Battery Executive Officer, Division Materiel Management Center Operations Officer and Maintenance Branch Officer. He is currently assigned to the 6th Infantry Division (Light), Fort Wainwright, Alaska.

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 always welcome.

The National Security Council Staff: Counseling the Council

Christopher C. Shoemaker, Westview Press, Boulder, 1991.

Since its creation in 1947, the National Security Council (NSC) has played an increasingly important role in the formation of U.S. national security policy. This work considers the mismatch which, in the author's view, exists between the national security structure and the essential functions that must be performed by the NSC staff. Shoemaker, a former NSC staff member himself, describes the history, functions and weaknesses of the NSC and its staff system and suggests changes to improve the NSC's performance.

Moving Mountains: Lessons in Leadership and Logistics from the Gulf War

Lieutenant General William G. Pagonis, Harvard Business School Press, Boston, 1992.

LTG Pagonis provides a riveting personal account of the behind-the-scenes activity that led to U.S. success in the Persian Gulf. From the first fateful telephone call to the mobilization of 550,000 troops and the shipment of 7 million tons of supplies, to the enormous challenge of bringing home half a million soldiers and their equipment, Pagonis recounts the challenges that he and his colleagues faced.

The Lifeblood of War: Logistics in Armed Conflict

Julian Thompson, Brassey's, London, 1991.

Thompson has produced a study of logistics in the military campaign, using a number of campaigns to illustrate how the problem of supplying forces has been tackled over the centuries. By examining the changes in logistical operations over selected campaigns, the author identifies the essential elements in successful supply and how campaigns have suffered as a result of logistics deficiency. This is not a book about "nuts and bolts" but an absorbing and highly readable study of principle and practice.

Desert Victory

Norman Friedman, The Naval Institute Press, Annapolis, 1992.

The first comprehensive assessment of the war in the Persian Gulf, *Desert Victory* not only spells out exactly what happened and why but also explains what it all means for the future. The author is a well-known civilian defense analyst, respected both for his ability to evaluate military events and his extensive knowledge of defense technology.

Operation Just Cause: The Storming of Panama

Thomas Donnelly, Margaret Roth, Caleb Baker, Lexington Books, New York, 1991.

From the decisions at the highest levels to the individual skirmishes, from Washington to the Panamanian jungles, the authors show how the sophisticated planning required to hit 27 targets simultaneously at night incorporated lessons learned from Grenada and Vietnam and helped ensure a quick and successful campaign. They also reflect on the changing nature of the armed forces in a post-Cold War world as the military shifts its focus from Central Europe to regional hot spots and on the role of these forces in the larger context of U.S. foreign policy.



'The Citizen Soldier:' The Role of IMAs in Carrying Out the Army Supply Management Mission

Charles K. Kalwinsky

This is another in a series of articles on the Army's Career Management Program that signifies the growing bonds between military Quartermasters and civilian supply careerists.

As we move forward into the reshaped and smaller Army of the 1990s, the integration of the military and civilian workforce takes on additional meaning. This article will address one facet of this integration. That is the integration of the U.S. Army Reserve Individual Mobilization Augmentees (IMAs) into the wholesale supply management system and their contributions to that system.

Who Are They?

IMAs provide additional military muscle to the Army Supply Management Mission. IMAs are U.S. Army Reservists, members of the Individual Ready Reserve (IRR), who are assigned to myriad Department of the Army commands and agencies. The IMAs are managed by the Army Reserve Personnel Center (ARPERCEN), in St. Louis, MO. IMAs normally perform a 12-day active duty tour with their assigned command each training year. The IMA officers and enlisted personnel represent a diverse number of military occupational specialties (MOSs), offering a wealth of experience and expertise to the Army. Usually IMAs are members of reinforcement training units (RTUs) at their home stations or are enrolled in Army Correspondence Courses to keep current in their MOS. Also, some IMAs do projects at home for their commands, for retirement point credit.

The IMAs at the U.S. Army Communications-Electronics Command (CECOM), Fort Monmouth, NJ, who function as supply management officers are predominantly Quartermaster Corps and Signal Corps officers. The command assists and encourages the IMAs to participate in the resident, satellite and correspondence courses at the Army's School of Engineering and Logistics to expand their supply management knowledge and skills.

IMA success stories are a source of pride and satisfaction in the supply management field. By examining the contributions of IMAs assigned to CECOM a clearer picture of their importance to our national defense is evident.

Peacetime Contribution

IMA officers assigned as materiel management officers for communications-electronics equipment at CECOM hold the ranks of captain through colonel. Their projects during their 12-day active duty tours are beneficial to both the command and their own military education. Many times the IMAs are able to offer skills developed in their civilian careers to enhance their military duties.

One officer, a mid-level manager at a major U.S. chemical corporation, did a three-year analysis of management techniques and use of automation. His recommendations that were implemented helped to streamline supply management procedures.

Another officer, a government employee working in space systems at Fort Monmouth, assisted in managing satellite communications equipment, budget preparation, coordinating depot repair work, and developing initial provisioning requirements and supply support concepts for new equipment. Because of his unique position of being both on the research and development and the wholesale sides of the system, this officer was able to apply his experience to solving mutual problems.

A third officer was activated for a 139-day active duty tour to review and coordinate CECOM materiel planning requirements for Special Operations Forces (SOF) Active, National Guard and Reserve elements. This was particularly critical with the accelerated acquisition of nondevelopmental items supporting SOF, requiring a coordination of wholesale level distribution and redistribution planning, as well as defining the modified table of organization and equipment (MTOE) requirements for CECOM assets held by SOF. This particular IMA's extensive experience in logistics and Signal Corps issues served as a tremendous advantage for CECOM and SOF forces.

A fourth officer, with extensive logistics experience at company and battalion level (retail level), used his knowledge to help develop a training guide for civilian supply management careerists, to include an automated, user-friendly Individual Development Plan. This resulted in improved career development for civilian supply management careerists at CECOM. After *Operation Desert Storm*, this same officer performed an in-depth study of the cost savings to CECOM by UNICOR, Federal Prison Industries, as a backup contractor during the hostilities. He is presently involved in developing the Flexible Computer Integrated Manufacturing (FCIM) Program for CECOM, which will enable Tobyhanna Army Depot to manu-

facture designated electronic spare parts, resulting in a cost savings for the U.S. Army.

Employment During Conflict

Those assigned as materiel management officers during this period were tremendous assets to the supply management mission at CECOM. The IMA officers were activated for periods ranging from 5 to 10 months to support the operation. Some were tasked to function as shift chiefs and logistical action officers in the CECOM Emergency Operations Center (EOC), which operated on a 24-hour/7 days a week basis. Others functioned as materiel management officers in the directorates within CECOM, actively participating in the movement of supplies through the system from the depot to the soldier in Southwest Asia, assuring a steady flow of communications-electronics supplies and equipment to the coalition forces in the theater of operations.

The IMAs competently learned the extremely complex functional and structural organization of a major military subordinate command, as well as grasped the complex processes in wholesale logistics support. They were involved in coordinating with military units in Southwest Asia, directorates in CECOM, Army Materiel Command (AMC) headquarters, depots, other branches of the Armed Forces, civilian contractors and other defense agencies. They helped make sure that critical communications-electronic equipment, as well as the key personnel (military, government, contractor) to operate and maintain this equipment reached Southwest Asia in the best manner. One IMA officer was sent to Dover (DE) Air Force Base to help with the shipment of CECOM equipment to Southwest Asia. Other IMA officers worked on critical equipment requirements, for example, battery shortages for mission-essential equipment such as chemical alarms and PRC-112 survival radios for Air Force pilots.

Further critical equipment issues were fabrication and shipment of cables for chemical alarms, purchase of commercially manufactured global positioning systems, shipment of night vision image intensifiers, and shipment of thousands of feet of wire,

to cite some key concerns. Essentially, the IMA officers played a key role in accelerating the wholesale supply process from a normal time frame of many months during peacetime to literally days from submission of a requisition to actual shipment to Southwest Asia. Extensive coordination was required between contractors, depots, the Logistics Control Activity (LCA), and Dover and Charleston (SC) Air Force Bases.

Operations Desert Shield/Storm gave the IMAs an excellent opportunity to function in many aspects of the wholesale supply system. This should prove invaluable in future active duty tours. During *Operation Desert Shield/Storm* a total of 28 IMAs were activated at CECOM and Fort Monmouth.

The Future

CECOM had such a positive experience with the IMAs during *Operation Desert Shield/Storm* that additional officer and noncommissioned officer spaces have been requested.

The training IMAs receive during their annual active duty periods not only focuses on improving their supply management abilities, but also folds them into the organization. This makes the IMAs an integral part of the Total Army, thus creating a cohesive skilled and trained team capable of meeting the challenges of the future.



Charles K. Kalwinsky has been the Activity Career Program Manager for Supply at the U.S. Army Communications-Electronics Command (CECOM) at Fort Monmouth, New Jersey, since 1988. Until recently the Acting Director of Materiel Management, he currently is Associate Director of the C3I Logistics and Readiness Center. He is a 1990 graduate of the Logistics and Acquisition Management Program (LOGAMP) and a 1971 graduate of the Army Supply Intern Program. He is an affiliate of the U.S. Army Quartermaster Regiment. This article was written with MAJ Douglas N. Redfield, Quartermaster, an Individual Mobilization Augmentee (IMA) assigned to the Directorate of Materiel Management, U.S. Army CECOM; and also with Frank Cutler, Chief, Plans and Operations Branch, Management Operations Division, Directorate of Materiel Management, U.S. Army CECOM.



TOTAL FORCE

Recipe for Success

CPT Kevin C. Sutor

Serving as an Armor company commander and logistician in the U.S. Army Reserve has allowed me several opportunities to test various timesaving methods. An additional six years as an Active Army Reserve officer serving with an Infantry company gave me the opportunity to improve them. The Army Reserve Component must be combat ready and able to deploy within a few weeks of mobilization. To improve efficiency in any forward support battalion or main support battalion, Quartermaster leaders must always ensure that their soldiers are being taken care of. To be most efficient, we must use the time we have to prepare our soldiers and units. Time is the one commodity that leaders never have enough of. The management methods you choose to use can maximize the time you have available and help your unit succeed on tomorrow's battlefield.

Organization

1. To organize your unit, you must first organize its leaders.
2. Organization will save time through efficiency and reducing distractors.
3. Have on hand and be familiar with AR 600-20 (Army Command Policy, with Interim Change 1 and supplements) on equal opportunity, sexual harrasment, and family support. It provides a focus for the development and understanding of basic command programs.

Administration

1. Automate your unit now! Computers have simplified administrative requirements. Ensure that you have the Army standard programs and keep it simple.
2. Ensure that your personnel are trained on these programs and teach as many members of your unit as possible.
3. Keep a working copy of your data on floppy disk and a hard copy in your files. Make a file listing on a floppy disk instead of typing them out.
4. Use AR 25-50 (Preparing and Managing Correspondence) for memorandums and typing letters and combine them on a floppy disk. Once you have ensured that the format is correct you may use this each time that you type a letter.
5. Many typewriters also have memory available that will allow you to program specific information. This allows you to type the basic data on an Equipment Receipt Card within minutes and can be helpful with a variety of repetitious supply and maintenance forms.
6. Use a copy of another unit's standing operating procedure (SOP) when drafting your own. Also, consolidate your SOPs and keep them in a labeled binder.
7. A current and well-stocked library is a key to effective training, operations and administration. Be

on the pin-point distribution list and keep your soldiers informed.

8. Use three-inch binders for physical security, crime prevention, mobilization, training, and logistics. Keep all the data on floppy disks so you can refer back to it easily when needed.

9. Schedule unit administrative meetings and take care of all issues as required at these meetings to save time during your drill times.

10. Publish an informative unit newsletter and ensure that all soldiers receive a copy.

11. Ensure that you have a good family support group established and work with them often. They can be a definite multiplier should you get mobilized.

12. Work to improve your unit's appearance both inside and out. This will improve morale and show your soldiers that their leadership cares for them.

Training

1. Proper training is the key to successfully performing your mission.
2. Ensure that your soldiers are military occupational specialty (MOS)-qualified and constantly strive to get them more schools.
3. Increase your unit's proficiency in nuclear, biological, chemical (NBC) training.
4. Physical training is essential for unit cohesion and success. Train to standard and beyond.

Tactics

1. Basic survivability tasks are an implied mission in every unit. Tactics should be inserted to increase training realism.
2. Make a chapter in your unit SOP of the basic tactical information your soldiers will need.
3. Standardize as much as you can on field exercises so that drills will become more familiar and improve in quality.
4. Conduct quality after action reviews and incorporate any changes as needed.

By taking time to focus on the items mentioned in this "recipe," you will be better prepared as a unit. Logistics Warriors must be prepared at all times. We must be able to react worldwide at a moment's notice to accomplish our unit's mission. We can only accomplish this through a careful use of time. Use time wisely: you may not get a second chance. 

CPT Kevin C. Sutor has a bachelor of arts degree in criminal justice/political science from Saginaw Valley State University, University Park, Michigan, and an associate's degree in law enforcement from Delta College. His military education includes the Military Police Corps Officer Basic Course, Armor Officer Basic Course, Quartermaster Officer Advanced Course, Basic and Advanced Noncommissioned Officer Courses, Mobilization Managers Course and the Movement Officer Course. As a Reserve Component officer, he is currently assigned as Commander, Headquarters Company, 327th Supply and Service Battalion.

Major Changes to Retail Stockage Policy

Major changes to stockage policy will be in Army Regulation 710-2 (Supply Policy Below the Wholesale Level), scheduled for distribution this September as part of Unit Supply Update Number 14. The major policy changes include the following:

- Authorize a retention level for Class II (general supplies), III packaged (petroleum, oils and lubricants), and IX (repair parts) (consumables less repairables) at the continental U.S. (CONUS) installation level and at the theater level overseas. The retention level is not associated with the requisitioning objective (RO).
- No retention above the RO for all direct support/general support activities.
- Delete stockage list code "L" (eliminate Mandatory Parts List).
- Add Initial Mandatory Parts List (IMPL) to the definition of stockage list code "P." This is primarily low-density missile repair parts.
- Eliminate the need for work orders to maintenance for items with recoverability code "O" (visual inspection only). Authorizes organizational level to make disposal decision for items coded as recoverable at that level.

Automated logistics systems will change with the new policy. The status of changes follows:

- **Standard Army Retail Supply System Level 1 (Interim) (SARSS-1(I)).** The changes to approximately 450 direct support units (DSUs)/general support units are effective immediately. They are being installed as soon as received.
- **Direct Support Unit Standard Supply System (DS4).** The changes applicable to approximately 250 divisional and nondivisional DSUs will go into effect when distributed in Autumn 1993.
- **Standard Army Retail Supply System - Objective (SARSS- O).** The changes for selected corps and lower units will go into effect when distributed in Autumn 1993.
- **Standard Army Intermediate Level Supply System (SAILS).** No program changes are required for the approximately 50 corps, theater Army, and CONUS installation users. Headquarters, Department of the Army message DALO-SMP, DTG 241309Z Mar 93, provides guidance for system administrators to immediately implement the new policy with an update to SAILS code table files. The message also provides additional information on overall system fielding.

Joint Doctrine Development

Mortuary affairs procedures have been published in a multiservice manual for the past 30 years. The Army has been the lead agent. Now, mortuary affairs doctrine will be published as a Joint Tactics, Techniques and Procedures (JTTP) Manual. It will contain procedures for decontamination of remains. The U.S. Army Training and Doctrine Command is the agency for the JTTP's development. These are the milestones for development: Initial draft, Nov 93; Final Draft, Mar 94; Proposed Final, Aug 94.

Decontamination Procedures

Procedures for decontamination of human remains contaminated with a chemical/biological agent were developed to support *Operation Desert Storm*. The procedures were field tested at Fort Lee, VA, using simulants. Initial staffing throughout the Department of Defense was completed Mar 93. Changes to the procedures as recommended by the field are being made. The procedures should become approved doctrine during the 4th Quarter, FY93 and initially published as Change 1 to the multiservice manual, FM 10-63 (Handling Deceased Personnel in Theaters of Operations).

Mortuary Affairs Automation

The Army and Air Force jointly developed a software program to support tracking remains through the evacuation process (battlefield to continental United States mortuary) during *Operation Desert Storm*. Hardware was procured and used in Southwest Asia. Air Force programmers are changing software as result of actual field use. Changes and a new user manual will be complete by Jul 93. Training on the Mass Fatality Field Information Management System will be developed and provided in Quartermaster Center and School Mortuary Affairs Courses during the 1st Quarter, FY94. Details for training active and reserve units will be determined during the 4th Quarter, FY93.

Battlefield Refrigeration Equipment

Refrigeration containers, trailers, and tractors have been added to mortuary affairs base and objective tables of organization and equipment. This capability is needed to slow the decomposition of remains during the battlefield evacuation. It will improve the capability to return viewable remains to the next of kin. A refrigeration capability is needed at every collection point within a theater of operations.

War on Excess Repair Parts

Over the past 18 months, divisions reduced excess repair parts by 78 percent (from \$152 million in Sep 91 to \$32.9 million in Dec 92). Installation and corps excess was reduced from \$381 million in Dec 91 to \$274 million in Dec 92. Now, the Army has two opportunities to continue this progress.

First, emphasis must continue at installation level. At the end of Dec 92, the installations reported \$249.5 million of excess.

The second area with immediate potential is compliance with existing authorized stockage list (ASL) policy. The Headquarters, Department of the Army, Office of the Deputy Chief of Staff for Logistics review of Command Logistics Review Team (CLRT) results, audit recommendations, and Total Army Inventory Management (TAIM) Program observations suggests that leaders best use existing supply resources by having the best answers to these six questions:

- Do ASLs include only essential, safety, legal, climatic or deferred-maintenance items?
- Do demand-supported items, such as stockage list code (SLC) "Q" meet the stockage/retention criteria?
- Have provisioning items, such as SLC "P" not meeting demand criteria, been deleted from stockage after the initial two years?
- Do command-directed items, such as SLC "M," exceed five percent of the demand-supported items such as SLC "Q"?
- Is stockage of reparables restricted to the requisitioning objective?
- Are ASL Review Boards meeting quarterly to review and approve additions and deletions?

Credit for Quartermaster Courses

Based on a Feb 93 evaluation of courses offered by the U.S. Army Quartermaster Center and School, the American Council on Education (ACE) is recommending that civilian institutions grant selected semester-hour credits for equivalent training at the lower division baccalaureate/associate degree, upper division baccalaureate degree, and vocational certificate levels. While most civilian institutions have access to ACE's recommendations, Quartermaster Center and School graduates are encouraged to find out how many, if any, credits they can get when they enroll.

Meal, Ready-To-Eat (MRE)

Future changes to the MRE include deletion of ham omelet and corned beef hash to be replaced by grilled chicken pattie and chili macaroni. Additional new items are tavern nuts, chewy brownie, lemon tea, and pineapple. The MRE menus are reviewed every year for possible changes. Currently under consideration is expanding the variety from 12 menus to 18 menus and including Multi-Faith/Vegetarian

menus. If you have a change you want to propose, contact Bob Amirault, U.S. Army Quartermaster Center and School, DSN 687-7114.

Multi-Faith/Vegetarian MRE Menu Options

The services have approved development of Multi-Faith/Vegetarian (MFV) menus for use in the MRE. The menus will meet Kosher, Halal and/or vegetarian requirements. One or two of the 12 current menus in the MRE will be replaced by the MFV menus. The MFV menus will meet the same requirements as all other MREs. They will be acceptable to all soldiers regardless of dietary requirements. It will be a leadership issue to ensure that those with special dietary requirements receive the MFV meals. While the variety will be limited, this method will ensure at least some MFV menus will be available. Procurement will begin in FY 95. For more information, contact Bob Amirault, U.S. Army Quartermaster Center and School, DSN 687-7114.

The Armed Forces Product Evaluation Committee (AFPEC)

The AFPEC was established to (1) evaluate unsolicited food items offered by industry for use in the military food service programs, (2) evaluate new food items generated through research and development, (3) evaluate existing food items for possible improvement in product or packaging, and (4) coordinate the programming of new or improved items.

The committee meets four times a year. These two future AFPEC meetings are already scheduled: 10-12 Aug 93 at San Antonio, TX, and 16-18 Nov 93 at Fort Lee, VA.

TM-412 Update

The TM-412 (Armed Forces Recipe Service (AFRS)) revision will be incorporated into the 1994 SB 10-260 (Master Menu). The AFRS revision will be in distribution by the end of CY 93.

CIE Proponency Changes

Proponency for Class A and Class B, general officer dress, and women's clothing and individual equipment (CIE) (to include the BDU maternity uniform) has been transferred from the Infantry School to the Quartermaster School. The program's objective is to provide CIE items that enhance the survivability and mission capability of combat soldiers and enhance the military appearance and comfort of all Army personnel. These include personal clothing items that are military, distinctive, and dignified in appearance; organizational clothing items that meet the needs of the soldier and satisfy the military requirement of the commander in all environments; and individual equipment that improves or increases the soldier's fighting capability, enhances safety pro-

tection and comfort, and that considers the latest state-of-the-art technology for performance, weight characteristics, camouflage, or other appropriate design criteria or consideration. The Futures Development Directorate will be working closely with TRADOC and Natick labs to ensure that all CIE components assure compatibility and optimization of form, function and soldier/machine interface. If you have any comments, questions or concerns about CIE items, please call Mr. Walker at (804) 765-3704/765-3708.

Water Support

Operation Desert Shield/Storm reinforced the need for improvements in water distribution. In response, the Directorate of Combat Developments, U.S. Army Quartermaster Center and School, is developing a concept that provides for distribution of water to unit trains (where logistics packages (LOGPACS) are configured) and logistics release points (LRPs). It also provides increased water storage/transport assets, organic water packaging capabilities, and additional water purification capabilities. An analysis will determine the most effective method of producing packaged water on the battlefield, mix of distribution modes, and doctrine for performing unit distribution of water. Point of contact is CPT Wells, DSN 687-7630.

Palletized Loading System

The palletized loading system (PLS) is a highly mobile truck and trailer combination with a self-contained system that loads and unloads cargo without the need for forklifts or other materials handling equipment. Each truck and trailer carries a demountable cargo bed (flatrack) which has a payload capacity of 16.5 tons. Without leaving the cab, the driver can load or unload a flatrack in under a minute (five minutes for both truck and trailer). The Directorate of Combat Developments, U.S. Army Quartermaster Center and School, is studying potential uses for the PLS in Quartermaster units. Point of contact is CPT Robert Jones, DSN 687-6996.

92A10 Pilot Class

The first 92A10 pilot class successfully graduated at the U.S. Army Quartermaster Center and School, Fort Lee, VA. There have been no major problems identified with the training schedule or the program of instruction to date. In process reviews have been conducted by the Quartermaster School on a regular basis.

The Reserve Components have begun their transition window for reclassifying soldiers with military occupational specialties 76C/P/V/X to 92A (Automated Logistical Specialist). Expect to see the Phase II of the old 76 courses taught this summer for the last time. U.S. Army Forces Schools and National

Guard Academies will have new 92A transition training packages available in time to conduct classes for the FY94 school year.

All levels of 92A are now being taught at the Quartermaster School on a regular schedule.

Letters have been sent to the commanders of students in the 92A pilot classes explaining their training and explaining that they are, in fact, 92A-qualified and will not require transition training.

Although there is a higher standard for passing the course, there does not appear to be an unusual failure rate compared to the 76-series courses.

Managing Your Career in Today's Army

CPT Michael G. Nadeau

You are your best career manager. Whether you are a second lieutenant or a colonel, you need to know the facts before making your next career decision. The Officer Personnel Proponency section in the Office of the Quartermaster General (OQMG) is responsible for developing and providing career guidance. The Quartermaster Corps chapter of DA Pamphlet 600-3 (Commissioned Officer Development and Career Management Guide) and the Quartermaster Officer Professional Development Guide are valuable tools written by OQMG to assist in career planning.

Branch assignment officers at the U.S. Army Total Personnel Command (PERSCOM) have access to your file. When asked for a file assessment for promotion potential, they will be candid, especially if you are at risk. OQMG does not have access to your file, so open discussion of your situation with branch assignment officers is important.

The assignment officer primarily fills valid authorized requirements with qualified officers. This is a very difficult mission, especially for field grade requirements, with only 80 percent of the required officers (not available officers) to fill 100 percent of the authorized positions.

An above center of mass (ACOM) officer evaluation report (OER) performance in a key leadership position will almost guarantee selection on future boards, barring any moral or ethical blunders. An ACOM OER in other positions will not guarantee future board selection, but will improve your chance of receiving a key leadership position. A center of mass (COM) OER in a leadership position carries more weight than a COM OER in other positions. A below center of mass (BCOM) OER will end your career in any position.

Because of only so many key leadership positions, you must fight for the opportunity to serve in those positions. Once on the installation, you should aggressively seek key positions. Credentials such as ACOM OERs, competency in the appropriate Mili-

tary Qualification Standards (MQS) program, and the ability to convince people that you are the best officer for the job will help you attain the desired positions.

The following information will assist you in career planning and hopefully remove misconceptions in the field:

Lieutenants

Must — Graduate without any negative comments from the Officer Basic Course.

— Get a troop level assignment such as platoon leader or executive officer (XO).

— Achieve competency in MQS. **Understand**

— First, foremost and always that performance is the single most important factor to success.

— A “2” on the front side or a non-left side, checked block on the back of an OER is now a discriminator as well as a BCOM rating from the senior rater.

— COM OERs did not guarantee promotion selection on the FY93 Captain/Retention Selection Board. Depending on your photograph and number of OERs in file, COM officers were found in all three categories, selected for promotion, selected for retention but not promotion, and not selected for promotion or retention.

— Although they met body fat percentages, COM officers who did not meet the weight screening table in AR 600-9 were discriminated against by the board. They were either viewed as overweight or did not present proper military bearing in their photographs. This was the deciding factor in whether the officer was retained but not promoted or not selected for promotion or retention.

— Board members are all battalion commanders or former battalion commanders. (Including the logisticians on the board.) They tend to select files that resemble their own. This is important for Quartermaster-pure lieutenants because combat arms officers on the board may not understand the importance of your non-troop assignments.

— Although branch detailees are not used to round out the senior rater’s profile, they usually were not offered the prestigious and career-developing positions. Discuss this issue with your rater during mandatory counseling and with your senior rater. Ensure that your job performance is beyond reproach. You should then receive an opportunity for those positions you desire and an OER equal to with your job performance.

— Branch detailees upon returning from the Branch Qualification Course should aggressively seek a logistics position at their installation. If none exist, they should seek troop leadership positions.

— The key for this selection board is job performance, not so much which job you held.

— Adventure training courses such as Ranger, airborne, and air assault are favorably received and

easier to attain at this stage of your career. Three of four officers selected for promotions on the FY93 board had gone to an adventure training course. You may not get the opportunity to go later in your career.

— As a Quartermaster lieutenant, you are being evaluated on your day-to-day missions captured on end-of-month reports. Other lieutenants are evaluated during periodic major training events.

Captains

Must — Graduate without any negative comments from an Officer Advance Course (OAC) such as the Quartermaster OAC, Combined Officer Logistics Advanced Course (CLOAC), or any other Combat Service Support (CSS) OAC. If you are an OAC graduate of a non-CSS branch, you need to attend the Supply and Services Management Officer (SSMO) Course.

— Be competent in MQS.

— Successfully command a company/detachment for at least 12 months.

— Serve in at least one Quartermaster troop assignment at a table of organization and equipment/table of distribution and allowances (TOE/TDA) battalion or unit level.

— Complete all phases of the Combined Arms and Service Staff School (CAS3).

Understand — The need to solidify your goals. Know where you want to go and when you want to be there before you complete the OAC. (Why so early? Everything you do from this time on will impact on your future assignments and board selection potential. Do you want to work wholesale or in a functional area, or attend Training with Industry (TWI), or Advanced Civil Schooling (ACS), or command a battalion, division support command (DISCOM), corps support command (COSCOM), or attend the resident Command and General Staff College (CGSC)? It all starts in OAC.)

— The Academic Evaluation Report (AER) from OAC, along with your command OERs are the key documents used to decide if you are selected for ACS, TWI, or resident CGSC. The Army does not waste money and the few specialized training opportunities with ACS, TWI and resident CGSC positions on marginal or average achievers.

— Follow-on courses such as Aerial Delivery and Materiel, Petroleum and Water Logistics, and Subsistence after OAC are great for the experience and will make you more knowledgeable about Quartermaster-specific missions. Those areas of concentration (AOCs) are personally challenging and rewarding. However, you must understand the limitations attached to each AOC before you decide to specialize in one. Each have a small community with the 92D and 92F being a very close-knit group of officers. There are no colonel and only five lieutenant colonels authorized positions (no command) for

92D. The 92F and 92G have more lieutenant colonel and colonel authorizations but still have limited command opportunities. Board results indicate that officers who continuously rotate in and out of and AOCs do not fair as well on boards as those that stay in the AOC.

— Company command OERs are the single most important documents in your file. Remember, as a Quartermaster officer, the chances of you being rated and senior rated by another Quartermaster officer are slim. In today's Army, only ACOM commanders are selected to resident CGSC. (At the last lieutenant colonel board, every resident CGSC graduate was selected to lieutenant colonel regardless of assignments as majors.) You are almost guaranteed lieutenant colonel by a successful company command. Receiving a top block OER is not easy. Unless you ask your rater and senior rater for specific guidance on what you must do to receive their top block, you will probably be expending time and energy in the wrong areas and will not get an ACOM OER. Ask for their appraisal of your performance during the periodic mandatory counseling. Insist on the counseling sessions. They are for your benefit. Also ask for a copy of your senior rater's profile. If he is giving everyone a top block OER, he is not really helping anyone. It is not enough to be a COM commander. Nonresident CGSC officers have only a 50 per cent chance of making lieutenant colonel.

— TOE versus TDA command. Command is command and ACOM OERs are what count. Results from the last major's board prove it. TDA command represents 14 per cent of our command opportunities, and 14 per cent of the officers selected had commanded TDA companies. A TDA command will affect your chances to command a TOE battalion unless as a major you are successful as a TOE battalion XO or support operations officer. As for TOE commands, with the advent of Functional Area (FA) 90, it is best to get a branch-qualifying command in a multifunctional battalion.

— PERSCOM will access you into an FA during your command. Most Quartermaster officers will be given FA 90 (Logistician). FA 90 positions are recognized by position code 90A on the authorization documents (MTOE/TDA). The 90A will replace positions coded 03A (logistics immaterial). It will replace current CSS branch-specific coded positions that are multifunctional in nature. Most positions in separate, divisional and corps support battalions are multifunctional.

— Other functional areas that Quartermaster officers are accessed into may be those belonging to the Army Acquisition Corps: FA 51 (Research, Development and Acquisition), FA 53 (Systems Automation Officer), and FA 97 (Contracting and Industrial Management). If interested in these or any other func-

tional areas, inform your branch assignment, officer and write a letter to the accession board. A master's degree or good Graduate Record Examination/Graduate Management Aptitude Test (GRE/GMAT) scores and a high undergraduate grade point average (GPA) in engineering, business, management or the math/sciences will increase your selection potential.

— ACS, TWI or the 3 Rs (Recruiting, Reserve Officers' Training Corps (ROTC) or Reserve Component) after branch qualification. The most advantageous assignment is ACS because it is funded, fully or partially, by the Army and will offer you a master's degree, indicated by Civilian Education Level (CEL) 2 on the ORB. Also, page 2, paragraph 2d(3) of the Guidance section given to selection boards states: "Pay particular attention to civilian education obtained at the direction of the Army." As a junior captain, it is of greater value, both militarily and for your career after the Army, to get your master's degree than to work on the nonresident CGSC course. However, you must complete the nonresident course if you are not selected for the resident CGSC to make lieutenant colonel. The last lieutenant colonel's list had two officers make lieutenant colonel without CGSC but both were resident CGSC selectees that had been deferred. TWI is similar to ACS in benefits (also great on your resume) but it will not get you a master's degree. The payback is a three-year, follow-on utilization tour, normally on a staff and not with soldiers. Remember, you may be out of the mainstream for five years: one year university/civilian industry training, three years follow-on utilization tour, one year resident CGSC. If you are going to take this route, do so as early as possible. Your time as a major is very short compared to that as a captain. Resident CGSC will take care of achieving LTC but if you wanted a troop command at that level you must get an "exceptional qualifying" with troops as a major. The more time the utilization tour and resident CGSC consumes of the major's years, the fewer the opportunities to get "exceptional qualifying" assignments. ("Exceptional qualifying" assignments will be discussed in the Major's Years portion of this article.) It is not career ending to be assigned to one of the 3 Rs. All branches participate in the 3 Rs. Again, you need to know what you want to do after this assignment and where you stand as far as your file is concerned. If you do not have a master's degree, take a ROTC or Reserve Component assignment. ROTC puts you on campus, and there may be benefits depending on the institution and your professor of military science (PMS). It also puts you in a position to inform young cadets about the many advantages of being a Quartermaster officer. Reserve assignments are currently a high priority assignment at PERSCOM and receiving increased visibility due to the Reserve Readiness issues. This assignment

will keep you current in logistics training and issues. It includes many working weekends and a busy summer but sufficient time to work on your master's degree and nonresident CGSC course. Recruiting is a challenge for those who want another opportunity to lead troops and to command. It is very time-consuming and demanding. Working with business men and women, public administrators, mayors, superintendents of schools, principals, and private organizations is a new and exciting experience for a company commander.

— Joint, Deputy Chief of Staff for Logistics (DCSLOG), Headquarters, Department of the Army (HQDA), PERSCOM and other nominative assignments are great for your career. The promotion statistics for captains and majors with these types of assignments are 20 percent higher than officers without this experience. However, as a major, remember your goals and what little time you have to accomplish everything you want to do as a major.

— Continually assess your career and aggressively seek the assignments that will help you achieve your goals, such as promotions, commands, schooling, job experience or a great resume).

Majors

Must — Serve in at least one but preferably two of the following types of positions:

Support operations officer or battalion S3

Battalion executive officer

Division, installation or corps logistics staff (Deputy/Assistant G4, Directorate of Logistics, Material Management Center assignments)

Theater Army Area Command (TAACOM), COSCOM, DISCOM operations/logistics Officer

Combat arms/combat support/separate brigade/group S4

Defense Logistics Agency (DLA), Department of the Army

(DA), Army Materiel Command (AMC), Major Army Command

(MACOM), staff logistics officer

Joint assignment

Service school instructor

FA 90 (Logistician) coded positions

— Be a graduate of the Command and General Staff College (CGSC) at Fort Leavenworth or its equivalent (MEL 4).

Understand — FA 90 positions are identified by position-coded 90A on the authorization documents. Assignments in 90A-coded positions meet certification standards for Quartermaster branch-qualifying assignments. However, Quartermaster coded positions 92A/B/D/F/G do not count toward FA 90 qualification/certification standards.

— There are two classes of FA 90 positions: "Exceptionally Qualifying" and all others. Officers

who want lieutenant/colonel command opportunities should seek "exceptionally qualifying" 90A positions. They must receive top block OERs from "exceptionally qualifying" assignments to be competitive for future lieutenant/colonel commands. Examples of these assignments are main support battalion (MSB) S3, support operations officer or XO in the forward support battalion/corps support battalion (FSB/CSB); maneuver brigade S4, and depot operations or productions control officer. "Qualifying" assignments are joint staff, Army staff, logistics staff officer, reserve/national guard unit advisors.

— Before your file is sent to the lieutenant colonel promotion board, a Qualification, Verification, Reclassification (QVR) board will review your record for FA 90 certification standards. If you do not have the training and assignments for FA 90, the board will remove the FA 90 designation from your records. Chapter 46 (Logistician) of DA Pamphlet 600-3 (Commissioned Officer Development and Career Management Guide) describes the certification standards for FA 90.

— The following statistical analysis of the FY92 lieutenant colonel selection board results was compiled by the Officer Proponency Office in the Office of the Quartermaster General.

Assignment History of FY92 Selectees Versus Nonselects

| OFF # | Types of Assignments | Selected | | Nonselects | |
|-----------|--------------------------------|-----------|--------------|------------|--------------|
| | | # | % | # | % |
| 20 | 2X BIG 3 (XO, S3, SPT OPS OFF) | 16 | 80% | 4 | 20% |
| 15 | 1X BIG 3 + JDAL/DA STAFF | 12 | 80% | 3 | 20% |
| 24 | 1X BIG 3 + DIV/CORPS LOG STAFF | 18 | 75% | 6 | 25% |
| 24 | STAFF ONLY (DIV AND HIGHER) * | 12 | 50% | 12 | 50% |
| 3 | MOSTLY NON-92 POSITIONS | 0 | 0% | 3 | 100% |
| 86 | | 58 | 67.4% | 28 | 32.6% |

* OF THE 12 STAFF ONLY SELECTEES, 7 (58.3%) WERE AT JOINT OR HQ DA LEVEL.

* OF THE 12 STAFF ONLY NON-SELECTS, 3 (25%) WERE IN JOINT OR HQ DA LEVEL.

| OFF # | Types of Assignments | Selected | | Nonselects | |
|-------|--------------------------|----------|-------|------------|-------|
| | | # | % | # | % |
| 36 | BN XO | 29 | 80.6% | 7 | 19.4% |
| 19 | S3, S2/S3 | 13 | 68.4% | 6 | 31.6% |
| 25 | SUPPORT OPERATIONS/FASCO | 20 | 80.0% | 5 | 20.0% |

| | | | | | |
|----|------------------------------|----|-------|---|-------|
| 16 | BRIGADE, GROUP, DISCOM S4 | 10 | 62.5% | 6 | 37.5% |
| 31 | JOINT, OSD, HQ DA | 25 | 80.6% | 6 | 19.4% |

Other Analysis From The Board Results

| OFF # | Types of Assignments | Selected # | Selected % | Nonselects # | Nonselects % |
|-------|---|------------|------------|--------------|--------------|
| 45 | NON-RESIDENT CGSC (MEL 4) | 23 | 51.1% | 22 | 48.9% |
| 57 | CEL 2 (MASTERS) | 43 | 75.4% | 14 | 24.6% |
| 29 | CEL 5 | 15 | 51.7% | 14 | 48.3% |
| 24 | DESERT SHIELD/ STORM PARTICI- PANTS | 15 | 62.5% | 9 | 37.5% |
| 22 | PRIOR SERVICE | 15 | 68.2% | 7 | 31.8% |
| 73 | PHOTOS WITHIN 1 YR OF BOARD | 53 | 72.6% | 20 | 27.4% |
| 13 | PHOTOS OVER 1 YR OLD | 5 | 38.5% | 8 | 61.5% |

— The FY92 Command and Staff College (CSC) Selection Board analysis for YG 79-83 was completed by the Officer Proponency Office in the Office of the Quartermaster General. The single most important factor considered for selection to a resident CSC is job performance, especially during company command. Having stated the obvious, the following factors may have distinguished the selectees from their non-select peers:

- 29 (59.2%) had master's degrees (CEL 2), including 3 BZ selectees to major from YG 83.
- 11 (22.4%) had completed non-resident CGSC (MEL 4).
- 16 (33.7%) attended a fully funded (6) or cooperative (5) master's degree program, Logistics Executive Development Course (LEDC) (3) or TWI (2).
- 14 (28.6%) had two company commands. 8 had two TOE units, 3 had two TDA units, and three had one TOE and one TDA unit.
- 34 (69.4%) commanded a TOE company.
 - 1 (2.0%) commanded a TDA company.

Assignment History of Resident CSC Selectees

- 8 (16.3%) in BIG 3 (BN XO, SPT OPS, S3).
- 8 (16.3%) in DIV/CORPS G4/LOG STAFF/DMMC.
- 8 (16.3%) in TRADOC.
- 7 (14.3%) in 3Rs (Reserves (4), ROTC (2), Recruiting (1)).
- 5 (10.2%) in JOINT (1), PERSCOM (1), USMA (3).
- 4 (8.2%) in NTC (3), CAC (1).
- 3 (6.1%) in Natick Lab (2), USA Test & Eval Ctr APG (1).
- 3 (6.1%) in DLA (1), Depot (1), DPRM (1).
- 3 (6.1%) in FA 53 (1), IG (1), Comptroller (1).

— The new CSC plan is for each basic branch to send 60 percent of each year group, starting with YG 79, to resident CGSC. In the past, Quartermaster officers have been selected at a 35-40 percent rate. Those who have been selected for resident CSC have had an almost 100 percent promotion selection rate to lieutenant colonel, while nonselects have been promoted at about 50 percent. With the increase in percentage (60 percent versus 40 percent) per year group going to resident CSC, it would appear that the number of non-selectees who will be promoted to lieutenant colonel will decrease dramatically. Thus, being selected for resident CSC seems to be even more critical than ever.

— All below the zone selectees to major are automatically selected to resident CSC as directed by the Chief of Staff, Army, (CSA) in instruction to the selection board members.

— Officers who have had an "exceptionally qualifying" assignment before resident CSC can expect a joint billets assignment upon completion of CGSC.

— As a senior rater of lieutenants, straight COM OERs in a 3-block profile will not guarantee that the lieutenant will be selected for promotion or even retention. Lieutenants with files containing some top block OERs, even top block COM profiles, tended to be favorably viewed by the Captain Promotion/Retention board.

Lieutenant Colonels

Must — Serve in at least two of the following types of positions:

- Battalion command (TOE/TDA) or its equivalent.
- Joint assignments.
- Staff assignments at division, Corps, major Army commands or DA.
- Wholesale assignments at AMC or DLA.
- Faculty assignments at U.S. Army Quartermaster Center and School or at other Army schools such as CGSC, and Senior Service College.

FA 90 (Logistician) coded positions.

Understand — Quartermaster officers will be given FA 90 (Logistician) based upon their desires and previous experience. FA 90 positions will be recognized by position code 90A on the authorization documents (MTOE/TDA). The 90A will replace positions coded 03A (logistics immaterial) and Additional Skill Identifier (ASI) 7Z (logistician). It will replace current combat service support (CSS) branch-specific coded positions that are multifunctional in nature. Most positions in separate, divisional and corps support battalions are multifunctional. Examples of FA 90 assignments are forward support battalion, CSB, division materiel management center (DMMC), and depot commanders; division ACOS, G4; and DA DCSLOG assignments.

— To be selected for Senior Service College (SSC) you need two top block command OERs (CDPL CMDs).

— SSC graduates are selected for promotion to colonel.

— SSC graduates (eight of nine) without a previous joint assignment are assigned to joint billets.

— You must have commanded at the O5 level to be selected for a brigade-level command.

— An advanced degree is beneficial.

— As a senior rater of lieutenants, straight COM OERs in a 3 block profile will not guarantee that the lieutenant will be selected for promotion or even retention. Lieutenants with files containing some top block OERs, even top block COM profiles, tended to be favorably viewed by the Captain Promotion/Retention board.

— Every job is important and the need to have a competent officer filling the position is critical to the overall Army mission. However, the reality of the situation is that boards do not view successful accomplishment of assignments equally. For example, a successful assignment as a PMS or logistics staff officer does not carry the same weight as a successful assignment as a FSB commander or division G4.

— An analysis from the ORBs of the FY 92 colonel board selectees was conducted. The following factors and assignment history may have distinguished the 38 selectees from their non-select peers:

— Of the 38 selectees, 37 were PZs and 1 was BZ. 3 of the 37 PZ officers were Quartermaster officers serving in the AAC.

— 37 (97.4%) had master's degrees (CEL 2), including the 1 BZ.

— 27 (71.1%) were SSC graduates (12), attending SSC (13), or completing Army War College Correspondence Studies Course (2) for MEL 1.

— 31 (83.8%) had attended a resident CSC.

— 32 (84.2%) had recent photographs (within 1 year).

— Of the 34 Quartermaster PZ officers:

— 20 (58.8%) had SWA experience.

— 17 (50%) had Joint experience.

— 11 (32.4%) had ARSTAFF experience.

— 2 (5.9%) were from YG 70.

— 25 (73.5%) were from YG 71.

— 5 (14.7%) were from YG 72.

— 2 (5.9%) were from YG 73.

— Average age was 44 years and 10 months.

— There were no AZ officers selected and the Army AZ average was 0.9%.

Assignment History of the Colonel Selectees

10 Command and SSC

10 Command and JDAL/DA Staff/PERSCOM

7 Command and G4

7 Command and Installation (DOL) DIV/corps Staff

2 Command only (including 1 CDPL PL)

1 Command and G4 and SSC

1 Command and JDAL/DA Staff/PERSCOM and SSC

38 (All had command or CDPL PL assignments)

The types of LTC Commands:

| | |
|-------------------|----------|
| 13 FSB | 3 POL |
| 5 SEP SPT | 6 SUPPLY |
| 1 COMMISSARY | 1 TRANS |
| 2 GEN SPT CTR | 1 MAINT |
| 1 TRADOC | 1 MSB |
| 2 DPRO | 1 DCMAO |
| 1 PRODUCT MANAGER | |

Colonels

Must — Serve in one or more of the following types of positions:

Command at a brigade, group or depot level

DLA, DA, AMC, MACOM staff officer

Faculty (Directorate at Quartermaster Center and School/SSC)

FA 90 (logistician) coded positions

Understand — By law, service in a JDAL assignment is required to be eligible for selection to General Officer.

— Being a graduate of an SSC or the Army War College Corresponding Studies course (MEL 1) is advantageous.

— The FY 94 colonel-level command, project manager (PM), and TRADOC System Manager (TSM) Positions Boards had 22 Quartermaster officers as principal selectees.

— 5 of the 22 Quartermaster selectees are Quartermaster officers serving in the AAC in FA 97 (Contracting and Industrial Management) and will command a procurement command.

— 3 of the 22 selectees were colonels deferred from the FY 93 list

— 16 of the 22 were lieutenant colonels (P) including 4 of the 5 serving in the AAC.

— When you exclude the 3 FY 93 deferrees and the 5 serving in the AAC, 12 of the 14 other selectees were lieutenant colonel (promotable). The Colonel Division Assessment Officer indicated that had there been available lieutenant colonel (promotable) officers qualified for other positions, the lieutenant colonel (promotable) would have been selected for command.

— 8 of the 22 are currently attending a senior service college.

If you have any questions, please contact the Officer Proponency section in the Office of the Quartermaster General at DSN 687-4741/4226 or Commercial (804) 734-4741/4226. The mailing address is Office of the Quartermaster General, ATTN: ATSM-QMG-O, Fort Lee, VA 23801-5032.



CPT Michael G. Nadeau is the Documentation Analysis Officer, Officer Proponency, Office of the Quartermaster General, Fort Lee, Virginia.

Directory – Points of Contact

U.S. Army Quartermaster Center

Fort Lee Autovon prefixes: 687/539
Commercial prefixes: (804) 734/765-XXXX

| | | | |
|--|---------------------|---|------------------------|
| The Quartermaster General BG John J. Cusick | (ATSM-CG) 43458 | Airborne and Field Services Theodore J. Dlugos | (ATSM-ABN-FS) 43771 |
| Acting Assistant Commandant COL Warner T. Ferguson, Jr. | (ATSM-AC) 43759 | Logistics Training Department LTC Gary L. Harris | (ATSM-LTD) 43195 |
| Deputy Assistant Commandant - Future COL Thomas C. Hill | (ATSM-FD) 46686 | Petroleum and Water (Acting) James F. Barros | (ATSM-PWD) 46658 |
| Deputy Assistant Commandant - Training COL Warner T. Ferguson, Jr. | (ATSM-DT) 44644 | Army Center of Excellence, Subsistence LTC Larry M. Edmonds | (ATSM-CES) 46648 |
| Chief, Office of the Quartermaster General COL David L. Shaw | (ATSM-QMG) 44237 | Mortuary Affairs Center LTC Thomas O. Rexrode | (ATSM-MA) 43831 |
| Command Sergeant Major CSM Milton B. Hazzard | (ATSM-CSM) 43248 | 23d Quartermaster Brigade COL Barry D. Bates | (ATSM-TPC) 43007 |
| Directorate of Combat Developments LTC Tommy H. Roberson | (ATSM-CD) 53701 | Noncommissioned Officer Academy CSM Norbert L. Schouviller | (ATSM-SGA) 52066 |
| Quartermaster Automation MAJ Robert B. Anderson | (ATSM-AD) 46683 | United States Army Reserve LTC James F. Ninnis 1-800-285-9440 | (ATSM-RC) 45258 |
| Directorate of Training Support Richard E. Strongin | (ATSM-SPT) 43398 | United States Army National Guard LTC Lawrence H. Lee 1-800-285-9440 | (ATSM-RC) 44168 |
| Directorate of Evaluation and Standardization Arlene R. Barkley | (ATSM-EV) 45769 | | |

MAILING ADDRESS:

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

TELEPHONE:

Autovon 687-4382
Commercial (804) 734-4382

UNIT DISTRIBUTION:

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

ARTICLE SUBMISSIONS:

Submit articles in 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.

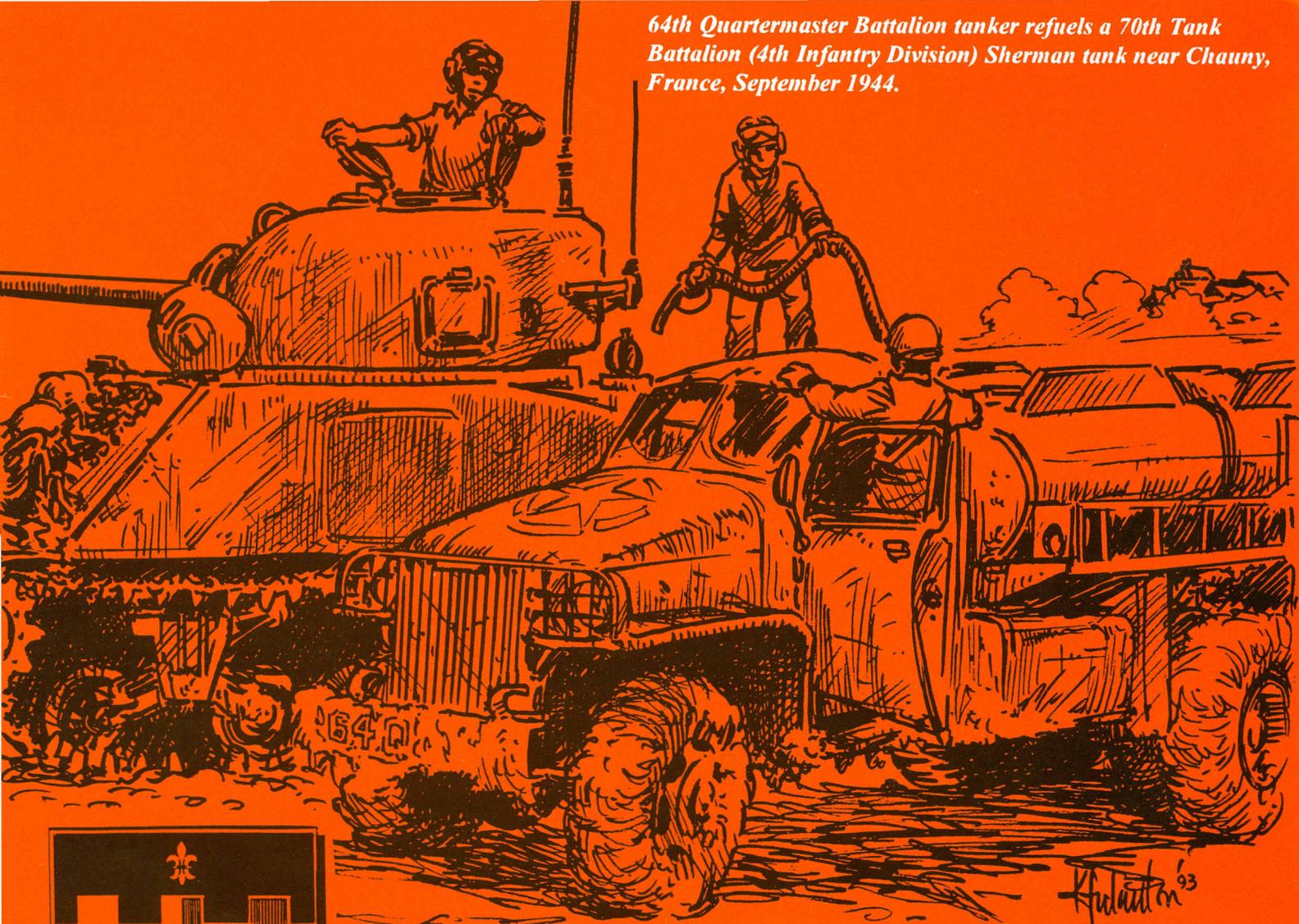
QUARTERMASTER HOTLINE:

The Quartermaster HOTLINE collects immediate feedback from the field on issues such as doctrine, training, personnel proponency, and Quartermaster equipment development with a 24-hour telephone answering service. The Directorate of Evaluation and Standardization records incoming calls after normal duty hours and responds to the caller the next duty day. DSN: 687-3767, Commercial: (804) 734-3767. Collect calls cannot be accepted.

SUBSCRIPTIONS:

Individual subscriptions are available from the Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954 at the rate of \$9.50 per year (\$11.88 foreign).

64th Quartermaster Battalion tanker refuels a 70th Tank Battalion (4th Infantry Division) Sherman tank near Chauny, France, September 1944.



64th SUPPORT BATTALION

LINEAGE

Constituted 29 April 1942 in the Army of the United States as the 64th Quartermaster Battalion

Activated (less organic elements) 15 August 1942 at Camp Barkeley, Texas, as the 64th Quartermaster Laundry Battalion (organic elements activated 25 July - 15 August 1942)

Reorganized and redesignated 16 December 1943 as Headquarters and Headquarters Detachment, 64th Quartermaster Battalion

Allocated to the Regular Army 18 November 1948

Inactivated 1 March 1949 at Camp Lee, Virginia

Activated 19 September 1950 at Fort Lee, Virginia

Inactivated 20 October 1953 in Germany

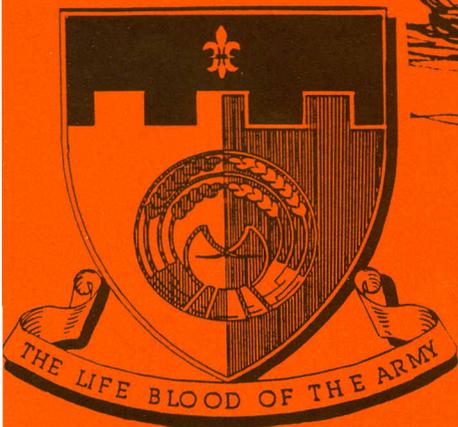
Activated 26 March 1963 at Fort Leonard Wood, Missouri

Inactivated 8 April 1970 in Vietnam

Redesignated 1 December 1975 as Headquarters and Headquarters Detachment, 64th Support battalion, assigned to the 4th Infantry Division, and activated at Fort Carson, Colorado (organic elements concurrently constituted and activated)

Inactivated 15 September 1984 in Germany

Activated 15 May 1987 at Fort Carson, Colorado



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

OFFICIAL BUSINESS

Inside the Quartermaster Professional Bulletin - -

Refuel on the Move: Supporting Patton's Third Army

Managing Your Career in Today's Changing Army

Rear Battle Victory

Systems for Logisticians

Class IX Operations: A View From the Main