Quartermaster

PROFESSIONAL BULLETIN

AUTUMN 1995

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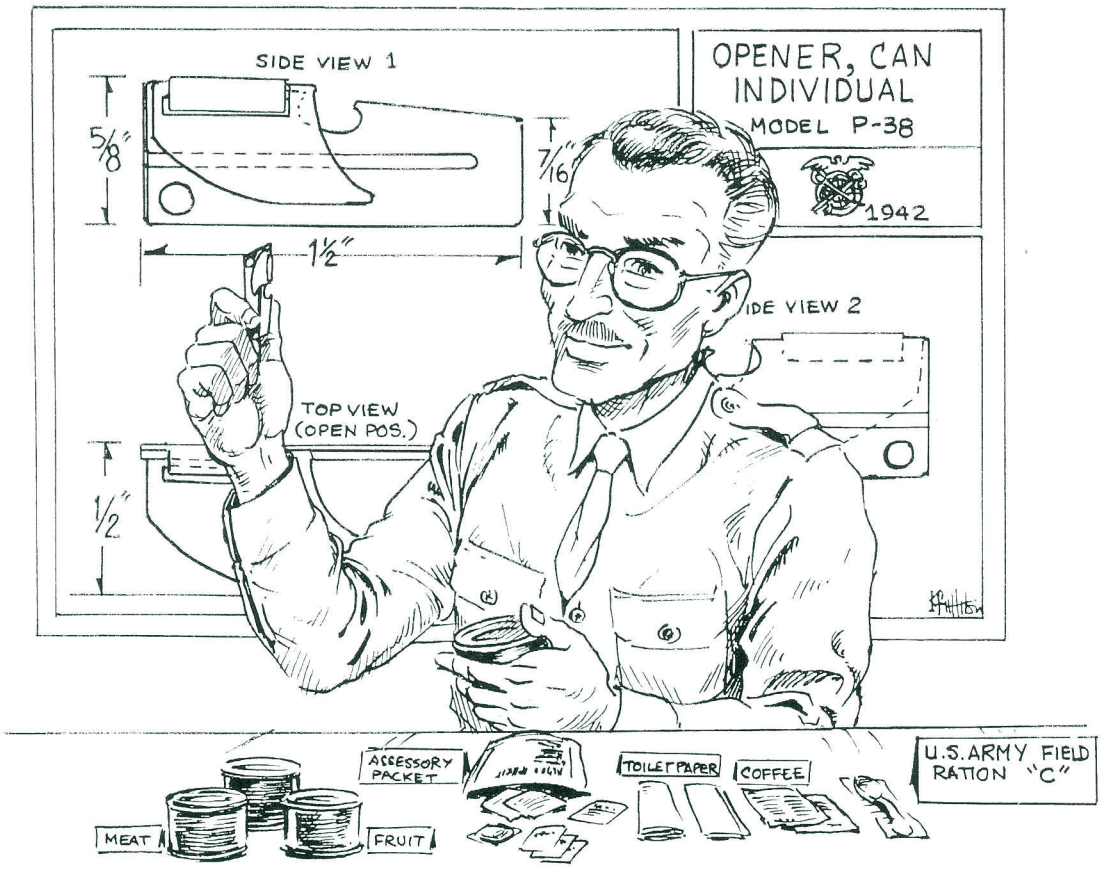
SUPPORTING VICTORY

Training With Industry

Also in this edition:

- *Quartermaster Four-Star General Began As A Private*
- *1995 Hall of Fame*
- *Reserve Unit Tests 'Paperless Office'*



A Quartermaster officer at the Subsistence Research and Development Laboratory in Chicago, Illinois, demonstrates the versatile P-38 can opener in 1942.

Autumn 1995 Theme: Quartermasters Training With Industry

Quartermaster
PROFESSIONAL BULLETIN

The Quartermaster General
Major General Robert K. Guest

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COVER AND ILLUSTRATIONS: LTC Keith K. Fukumitsu, Quartermaster, created all the cover art for this edition. 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, VA.

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From The Quartermaster General

Major General Robert K. Guest

Important Training Tool

This edition of the *Quartermaster Professional Bulletin* focuses on a small but important training tool — Training With Industry. You will read about the programs we have in place today and the experiences of the Quartermaster officers who have served in these business training programs. It is important to keep in mind that this is a small piece of the training puzzle, yet it helps our Corps keep in touch with industry leaders in several fields. We began this year with the addition of two Training With Industry positions for warrant officers: one at Sears, Roebuck & Co. and one at Marriott Corp.

This *Bulletin* also has an award-winning article about an absolutely great soldier — General Richard H. Thompson. General Thompson is our only Quartermaster four-star general, and he held a host of essential Army jobs. This article addresses the thread that held so many of those jobs together — professional and personal ethics. Clearly, our professional ethics are the cornerstone of all that we do to support America's Army.

We highlight in this quarter's *Bulletin* the inductees into our 1995 Hall of Fame. This was a great year for the Corps as we selected the best of the best for inclusion in this elite group. During a ceremony on September 29, we inducted eight new and most distinguished members. We are proud of the world-class accomplishments of each person. Each one is a true representative of the finest our Corps and our Army has to offer the cause of freedom.

As you find our Army moving into the next season, I hope you will all remember the importance of your Quartermaster Corps to the success of the battle and winning of our next war. As we work, each in our own way, to support America's Army, we must keep in mind the importance of taking care of soldiers and maintaining readiness in our units. The Quartermaster Functional Review looks at many of the personnel issues affecting our Corps today. This critical review is still in draft form and will be presented in final form to the Deputy Chief of Staff for Personnel on January 12, 1996. Many issues in the Career News section of this publication today will be resolved before we present this laydown to the Deputy Chief of Staff for Personnel.

This laydown of issues folds into the Functional Area Assessment that will be briefed to the Vice Chief of Staff of the Army in March 1996. I invite each of you to write to us with any additional issues or supporting comments you may have. Send your comments to COMMANDER, US ARMY QUARTERMASTER CENTER AND SCHOOL, ATTN OFFICE OF THE QUARTERMASTER GENERAL, 1201 22D STREET, FORT LEE VA 23801-1601. Together, addressing the right issues, we make our Corps and our Army stronger. Thanks to each of you for supporting our Corps and our Army in such a first-class manner as we move into the 21st century.

Major General Robert K. Guest, 43d U.S. Army Quartermaster General, has held a wide variety of command and key staff positions. His previous assignments include Deputy Chief of Staff, Logistics, U.S. Army Europe and Seventh Army; Commander, 3d Corps Support Command, Wiesbaden, Germany; Director of Logistics Management, U.S. Army War College, Carlisle Barracks; Commander, Division Support Command, 101st Airborne Division (Air Assault); Chief, Supply and Maintenance Policy Division, Office of the Deputy Chief of Staff for Logistics; and Commander, 1st Supply and Transportation Battalion, 1st Infantry Division.

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Promotion

Command Sergeant Major Ricky A. Vernon

In this edition I need to talk about promotions — the recurring questions I get when I talk to soldiers around the world. Basically, our 10 enlisted Quartermaster military occupational specialties (MOSs) have a sound structure. A few have problems in the sergeant (SGT) to staff sergeant (SSG) area. The U.S. Army Total Personnel Command (PERSCOM) and my Office of the Quartermaster General are both working diligently to solve the questionable areas and fix the structure. These SGT to SSG problems may be reasons the structure is somewhat out of balance, but the primary reason is the Army's downsizing. For example, Quartermasters have one MOS that has 2,400-plus soldiers waiting for promotions to 950-plus slots.

Main Concern

So, the main concern is this: Do we have enough time to solve the problem before we lose good soldiers to the retention control point (RCP)? Not always. Noncommissioned officers (NCOs) can take two actions to help themselves: Apply for the Warrant Officer Corps or reclassify.

At present the Quartermaster Corps has a shortage of warrant officers. Good NCOs should and can apply for warrant officer. With a shortage, getting selected is not that difficult for an NCO with a good record. Submit your packet now. See your local personnel service center to apply. (Send applications directly to COMMANDER, HQ USAREC, ATTN RCRO SM A, FORT KNOX KY 40121-2726.) For further information, telephone DSN 536-0457/0458 or TOLL FREE 1-800-223-3735 (then dial 4 plus 0457 or 0458).

Reclassify

Soldiers in a balanced primary MOS or soldiers approaching their RCPs in an MOS with no promotion opportunities should consider reclassifying into a shortage MOS to improve promotion opportunities. Soldiers are generally limited to voluntary reclassification from an overage to a shortage MOS. However, specialists with 600 or more promotion points or sergeants with 700 or more promotion points, serving in a balanced MOS, may request reclassification into a shortage MOS as an exception. Soldiers within three years of their RCP should request reclassification as early as possible.

To reclassify, a soldier must meet the eligibility requirements for the new MOS. For assistance to determine which MOSs are short and to find out eligibility requirements and the requesting procedure, a soldier should contact the local personnel or enlisted strength management office. If within eight to three months of expiration term of service, contact the organization's retention office. Point of contact at PERSCOM is MR J BRUMBAUGH, 2461 EISENHOWER AVENUE, ALEXANDRIA, VA 22331. Telephone DSN 221-5400 or (703) 325-5400 or E-mail tapxeprf@hoffman-emh1.army.mil.

I know this is a "bad" subject, but I would rather lose a good Quartermaster soldier to another Quartermaster career management field than lose a good soldier period.

Command Sergeant Major Ricky A. Vernon is the Command Sergeant Major of the Quartermaster Regiment and of the U.S. Army Quartermaster Center and School, Fort Lee, Virginia.

Quartermaster Warrant Officer Opportunities

The Quartermaster Corps is experiencing critical shortages in two warrant officer military occupational specialties (MOSs) primarily because of lack of quality applications from the field. The shortage MOSs are 920B (Supply Systems Technician) and 922A (Food Service Technician). To improve the quality of applications, the Department of the Army, Deputy Chief of Staff for Personnel has agreed **on a selective basis** to waive the active federal service (AFS) mandate from 12 to 14 years for critical shortage MOSs 920B and 922A. All applicants with more than 12 years AFS must be in the rank of SSG(P) or higher. Commanders' endorsements should be more than "Recommend Approval." Make sure your Army Physical Fitness Test is within six months. Ensure your microfiche is up to date, and enclose a copy with your packet. See AR 135-100 and the U.S. Army Recruiting Command (USAREC) Directory for application requirements. Work with your military personnel office, they will help. For further information, telephone USAREC at DSN 536-0457/0458 or TOLL FREE 1-800-223-3735 (then dial 4 plus 0457 or 0458).

The Professional Army Ethic: Thompson's Standard From Private to General

COL Daniel G. Mongeon

From his earliest days in the Army to his last days on active duty as a four-star general, Richard H. Thompson was guided by an unwavering ethical framework. This deep-rooted set of values, overpowering sense of duty, and unbending devotion to do the right thing regardless of the consequences was the central theme of his 42 years of service.

This article originated with the author's Military Studies Project in 1993 at the United States Army War College, Carlisle Barracks, PA. His project received the college's Bristol Oral History Award. The author examines Thompson's career in light of the professional Army ethic. Specifically, his article illustrates how a staunch ethical framework was consistently applied, regardless of the ambiguities in many situations. COL Mongeon presents a series of vignettes that illustrate the four elements (Duty, Integrity, Loyalty and Selfless Service) of the Army ethic. These vignettes are taken from General Thompson's Senior Officer Oral History (draft transcript). In addition, the author's personal observations and comments, based on years of experience with General Thompson, are woven into the text. The author's intent is to foster a better understanding of the decisions involving tough ethical choices facing young soldiers and generals alike. While there is no "cookbook" solution to ethical dilemmas, there are professional values that can help guide soldiers to do the right thing. Thompson's vignettes are thought-provoking and are reflective of an often complex, ambiguous environment in which Army professionals must operate.

> **The soldier's heart, the soldier's spirit, the soldier's soul are everything. Unless the soldier's soul sustains him, he cannot be relied on and will fail himself and his country in the end.**
>
> ***General George C. Marshall***

General Richard H. Thompson's career traveled many different roads, and he encountered many ethical dilemmas. But his steadfast focus on the preeminence of ethical behavior always seemed to carry the day. Thompson the general doggedly applied the same standards that had guided his actions as a young soldier.

Interestingly enough, Army doctrine as developed in various Department of the Army Field Manuals (FMs) such as FM 100-1 (The Army), FM 22-103 (Leadership and Command at Senior Levels), and FM 22-100 (Military Leadership) implies that as rank and responsibility increase, a certain amount of flexibility and situational judgment are required. However, for Thompson no ambiguities or dilemmas fell outside the bounds of his basic ethical framework.

He blended the professional Army ethic into a uniquely personal leadership style and philosophy. This philosophy provided him the staying power to weather the frequent storms of the turbulent decades following World War II. His was a self-made career. It might have been a quirk of fate that he achieved the pinnacle of his profession as the first-ever four-star general in the Quartermaster Corps and as the commanding general of the United States Army Materiel Command. It certainly was not a series of picture-perfect assignments. Regardless of why and how Thompson achieved success, his consistency in making value decisions was a hallmark of his career. Superiors, peers, and subordinates alike always knew where General Thompson stood in terms of the Army's professional ethic.

General Thompson's career was anything but typical. He served in the New York State Militia, the Army Reserve, and the Active Army. General Thompson did not graduate from the United States Military Academy at West Point, New York. He neither received a Reserve Officers Training Corps (ROTC) nor an Officer Candidate School (OCS) commission. Rather, he received a direct reserve commission through a post World War II program for specially qualified veterans attending college.

He wore the brass of four different branches. As a young soldier, he wore Artillery brass. As an officer, he wore the brass of the Adjutant General, the Infantry, and the Quartermaster Corps.

While his career spanned three wars — World War II, Korea, and Vietnam — he was not a highly decorated warrior. Despite aggressively volunteer-

ing for duty and eventually serving three wars — he was never tactically involved.

His undergraduate and graduate degrees were obtained through night school. He never attended an officer basic course. He attended two officer advance courses — Infantry and Quartermaster — but never attended another principal Army school. However, he did attend the United States Air Force Air Command and Staff College, the Armed Forces Staff College, and the National War College.

General Thompson commanded as a lieutenant, captain, lieutenant colonel, colonel, brigadier general, major general and general; but only his battalion command was in a division or corps. He was consistently promoted early, but *not* from an inside track or with exceptional support from his branch or a special mentor.

Besides his relentless drive to do his best, what distinguished General Thompson was an unwavering adherence to the professional Army ethic. His career easily illustrates elements of that ethic: Duty, Integrity, Loyalty and Selfless Service. These elements provided Thompson a rock-solid base for making moral decisions about right and wrong. From private to general, he faced decisions involving tough ethical choices head-on. The Army ethic, according to FM 100-1, "sets standards by which we and those we serve will judge our character and our performance."

Duty

In official publications, duty is variously defined. "Duty is doing what needs to be done at the right time despite difficulty or danger; it is obedience and disciplined performance," according to FM 100-1. "A

★ ★ ★ ★ General Richard H. Thompson ★ ★ ★ ★

During his career General Richard H. Thompson served in numerous Quartermaster positions. In 1966, he commanded the 503d Supply and Transport Battalion, 3d Armored Division in Frankfurt, Germany. In 1967, he returned to the United States to attend the National War College. Afterwards, he was assigned to the Office of the Assistant Vice Chief of Staff, Department of the Army, as a Logistics Systems Officer and then as Chief of the Tactical Support Systems Group. In 1970, he assumed command of the U.S. Army Inventory Control Center. He was assigned as Commander of the Defense Logistics Services Center, Battle Creek, Michigan, in 1971 and later in a dual role became Commander of the Defense Property Disposal Service, an organization which he established and activated. In 1973, he was reassigned to Department of the Army as Director of Logistics Plans, Operations and Systems, Office of the Deputy Chief of Staff for Logistics. In 1975, he became the Director of Supply and Maintenance, Office of the Deputy Chief of Staff for Logistics. In 1977, he assumed command of the U.S. Army Troop Support and Aviation Materiel Readiness Command. He returned to Washington in 1980 as the Assistant Deputy Chief of Staff for Logistics, Department of the Army, a position he held until 1981, when he became the Deputy Chief of Staff for Logistics. In 1984, Lieutenant General Thompson was promoted to the rank of General, thus becoming the first Quartermaster Officer in the Army's history to be elevated to that rank. Upon his promotion, General Thompson assumed command of the United States Army Materiel Command (formerly DARCOM). General Thompson's awards include the Distinguished Service Medal (with one Oak Leaf Cluster), Legion of Merit (with two Oak Leaf Clusters), Bronze Star, Joint Service Commendation Medal (with one Oak Leaf Cluster), Army Commendation Medal (with four Oak Leaf Clusters), the Army Logistician designation, Brazilian Grand Master of the Order of Military Merit, Spanish Grand Cross of the Order of Military Merit, and the Korean Order of National Security Merit Tong—IL Medal. He retired from active duty in 1987 after 42 years in the U.S. Army, beginning as a private and ending as the first Quartermaster four-star general.

General Richard H. Thompson
Hall of Fame Inductee in 1991

duty is a legal or moral obligation to do what should be done without being told to do it. Duty means accomplishing all assigned tasks to the fullest of your ability," according to FM 22-100.

Three incidents from General Thompson's oral history provide examples of his sense of duty. The first took place when he was a young soldier. The second occurred during his first assignment as an officer, and the third took place when he was a general officer.

The year was 1946: 19-year-old Sergeant Thompson was on a routine night patrol in ravaged, postwar Germany. Though an artilleryman, most of his unit's time was spent performing police duties commonly associated with an occupation force. His 10-man patrol was told to check out the situation at a nearby farm where some soldiers from an adjacent French Colonial unit had allegedly killed a German farmer and possibly his entire family. Sergeant Thompson's patrol went to investigate. As they approached the farm, the patrol received fire. As Sergeant Thompson started forward, some of the old timers in the patrol yelled, "What in the hell are you doing? We are not going to get killed over something like this. Are you crazy?" Sergeant Thompson continued forward, joined only by one young private. They carefully made their way into the farm and found four French Colonial soldiers, who had, in fact, killed the farmer. In the barn, hung by a meat hook in his throat, the farmer was a grisly sight. The French soldiers had also raped and killed the farmer's wife and two daughters. Sergeant Thompson took immediate action by confronting the French soldiers and escorting them back to their unit. A full report was made of the incident. Thompson was called as a key witness for the prosecution in their court martial.

I'll never forget that night . . . shots being fired . . . finding myself by myself!

In the oral history, General Thompson stated, "I'll never forget that night, the lights on in the farm house, the shots being fired, and turning around and finding myself by myself!" Sergeant Thompson went forward because it was the right thing to do. He knew the danger — shots had been fired — but also knew it was his mission and moral obligation to investigate what had happened at the farm. This basic ethic of duty first was and has remained General Thompson's standard of performance.

In 1950 General Thompson had his first active duty assignment as an officer, at Fort Hamilton, NY. He commanded the ceremonial Honors Detachment for the Long Island National Cemetery. General Thompson recalled himself as "a young man with a tremendous sense of responsibility because it was all mine; I was totally in charge with 30 men, a bus, and a barracks." Second Lieutenant Thompson was responsible for 20 to 30 interments a day. While not all of them were full honor burials, many were. On bitterly cold winter days, successive full-honors interments were a bone-chilling experience. Despite the discomfort, he insisted that his honor detachment go through the entire ceremony for every interment. This insistence caused many arguments with cemetery personnel. If no family was present, the past practice had been to do what they called "the drop," which was just burying the person without a ceremony. "My very strong stand on this issue didn't make me very popular with the cemetery personnel." However, he worked for "a great Colonel," Erwin F. George. When the complaints started to surface about young Lieutenant Thompson, Colonel George took the time to find out the true facts before taking any action. Once Colonel George had found out the real story, "he made certain that instead of being chastised, I was thanked and rewarded for my very conscientious performance of duty."

Clearly, there is no substitute for doing your duty to the best of your ability and for doing what is right regardless of its unpopularity or consequences. For Lieutenant Thompson to take such a disciplined, responsible stance at such an early time in his career reflects his career-long sense of duty.

This story from Thompson's time as the Deputy Chief of Staff for Logistics, Department of the Army (DCSLOG, DA) finds him at odds with the Army Secretariat and a Congressman from Kentucky. The Congressman had contacted the Army Secretariat and was insisting that a maintenance facility be established at Lexington Bluegrass Army Depot. The depot was losing other missions and the Congressman wanted to save defense jobs in his district. The Secretariat, thinking it politically wise, pushed Thompson to establish the facility. Thompson told the Secretariat that he would not support the idea

because there was no need for the facility. Thompson was asked to at least go out and look at the depot. Thompson thought that was fair and went. When he arrived he was met by a group of reporters who had been alerted to his visit by the Congressman. The reporters had been led to believe that Thompson was going to make an announcement concerning a future maintenance facility at the depot. Thompson refused to make a public statement or be interviewed. While Thompson was visiting the depot, he received a call from the Army Secretariat's office asking why he was so uncooperative. Thompson told them that he had no intention of making any announcement about putting a maintenance facility at the depot. After Thompson returned to the Pentagon, he was asked to explain his actions to the Army Chief of Staff, which he did. The Chief said, "OK, it's your call."

Duty is a personal act of responsibility. Thompson fully accepted responsibility for his actions, regardless of the consequences. Thompson placed duty above danger, self-gain, and personal advantage. The concluding sentence on Duty in FM 100-1 best articulates Thompson's concept of duty: "It requires the impartial administration of standards without regard to friendship, personality, rank, or other favoritism."

Integrity

"Integrity is the strong thread woven through the whole fabric of the Army ethic," according to FM 100-1. "You must be absolutely sincere, honest, and candid and avoid deceptive behavior," according to FM 22-100.

Duty is a very personal act of responsibility.

Although General Thompson's oral history is sprinkled with examples that show his sense of integrity, three vignettes will illustrate. The first occurred while he was at Fort Hamilton, NY. The second took place in Japan during the Korean war. The third example details a situation Thompson faced while he was stationed at Fort Chaffee, AK.

Lieutenant Thompson's assignment as the Honors Detachment Commander resulted from the fact that the previous commander was under investigation for taking kickbacks from funeral directors. One of the honors detachment commander's duties was to drive the car used for taking the deceased's family and the funeral director to the grave site. The first time he drove a family and a funeral director to the interment site, Lieutenant Thompson found an envelope in the front seat near the driver's side. The envelope contained a fifty dollar bill. Thompson immediately charged after the funeral director and said, "You must have dropped this." Told, "No, that is for you," Thompson said, "No that isn't!"

Kickbacks were to ensure favorable scheduling of interments for the funeral directors, who had to drive 60 miles from New York City. This situation made it desirable for the funeral director to have morning interments — the earlier, the better — to let the funeral directors get back to the city to have a second military funeral the same day. Lieutenant Thompson's predecessor had set it up so that the honors detachment commander was responsible for scheduling interments. Upon learning this, Lieutenant Thompson decided that scheduling was not part of his responsibility and returned the function to the civilians who ran the national cemetery.

In Japan, one of Lieutenant Thompson's duties along with all the other lieutenants at the post, was to audit nonappropriated funds. Lieutenant Thompson's name came up to audit the post theater, run by Special Services. When the major in charge of Special Services heard that Lieutenant Thompson was the auditing officer, the major sent Thompson the papers with a message just to sign them. Thompson refused. He looked into things and, unfortunately, found several thousand dollars missing. "That was it for the major," who had a wife and four children. Thompson found it interesting that people can be so sympathetic toward the one caught in wrongdoing: "we were at a small post with about 30 officers, and there was a lot of implied criticism that I could have handled the situation differently." Thompson knew what he had to do, regardless of peer pressure or sympathy for the major's family.

At Fort Chaffee, AK, when Captain Thompson had just given up command of his basic training company, he was told that he was going to be the Basic Training Center S4. The officer he was to replace, a lieutenant colonel who had spent the last 10 to 15 years on the Olympic pistol team, was just nominally involved in running the office. When Thompson went to see him at his office, Thompson met a sergeant who was obviously running the

show. What amazed Thompson was that the sergeant was driving a Cadillac! Thompson dug into the accounts and found that the sergeant, through an elaborate scheme, was pocketing the money people were paying for separate rations. This scam, having gone on for at least three years, involved a considerable sum of money. Captain Thompson decided to report his findings to the Basic Training Center commander. After hearing the report, the center commander told Thompson not to do anything about it — he would handle it. Then the commander told Thompson in very unfriendly terms that this report was something that would completely ruin the current S4's career. The commander concluded by giving young Thompson a good dressing down.

Thompson left "feeling rather depressed." While walking back to his unit, his former battalion commander, Lieutenant Colonel Gatlin, came by in his jeep. Gatlin stopped and asked, "What the hell is the matter with you?" Once Thompson explained, Gatlin told him to get into the jeep and proceeded to the post headquarters to see the commanding general. Gatlin had been around "forever." When they got in to see the commanding general, Colonel Gatlin called the general by his first name: "Tom, I want you to hear what young Captain Thompson has to say." Upon hearing the whole story, the general thanked Thompson and took immediate action. Later that day, Thompson went back to the S4 office and walked in just ahead of the Army Audit Agency. The commanding general was able to say that he was aware of the situation and had already taken action.

As a young officer, the pressure of dealing with a person of superior rank on an integrity issue can be overwhelming. Lieutenant and, later, Captain Thompson held fast to his convictions and did not compromise his integrity.

Loyalty

"Loyalty to the nation, to the Army, to the unit and its individual soldiers is essential," according to FM 100-1. "The military leader who deeply values loyalty to the nation sees himself as a person who will always do his best to defend American ideals," according to FM 22-100.

Loyalty up and down the chain of command is not only highly desirable, but essential to the good order and discipline of the Army. Loyalty is a quality that builds on itself to foster teamwork. Without loyalty, there is no trust or confidence in the leaders or the led. Two vignettes from Thompson's general officer years show the importance of loyalty to the welfare of the Army and soldiers.

Loyalty is a quality that builds on itself to foster teamwork.

General Thompson's loyalty to subordinates is best examined in the broadest context. He was loyal to the welfare of the Army, its principles, and just causes as they related to subordinates. This was clearly the case with regard to equal opportunities for women in the Army, as illustrated by an incident shown from General Thompson's tenure as the Director of Supply and Maintenance in the Office of the Deputy Chief of Staff for Logistics, Department of the Army (ODCSLOG, DA). Thompson received a call from the General Officer Management Office (GOMO) asking about the pending assignment of two female missile maintenance officers to Korea. While there could be no formal objection to qualified female officers being assigned to these positions, concerns had been obviously raised through informal general officer channels. At the time, Korea was only authorized two missile maintenance officers. The Ordnance branch was going to fill both vacancies with very qualified women, but there was a concern in Korea that the units involved were too close to the demilitarized zone (DMZ). While there was no objection to females in Seoul or Pusan, there was near the DMZ:

> Well, I took very real umbrage at any indication that these officers should not be given this opportunity just because they were females . . . . I'm happy to say that the system stood up and sent the two female officers to Korea.

A second story reflects General Thompson's loyalty to the Army and his superiors. To set the stage, Thompson was bitterly disappointed with his assignment after his three-year tour as commanding general of Troop Support and Aviation Materiel Readiness Command (TSARCOM). It was only after a personal request from General Vessey, then the

Army Vice Chief of Staff, that Thompson reluctantly accepted the assignment as Assistant DCSLOG, DA. Thompson tells the story of his "reality check" on his first day on the job. His new office was a third the size of his former office. He shared a secretary and an executive officer; as the commanding general, he had had two secretaries, an aide, and an executive officer with a supporting staff. He had no dedicated transportation; at TSARCOM he had had his own staff car, and both a helicopter and airplane standing by at all times. In other words, at TSARCOM he was well cared for, king of the hill. This certainly was not the case as the Assistant DCSLOG. He went down the hall to the bathroom. Unbeknown to Thompson, the urinal was broken and when he flushed it, water splashed up his coat and down his trousers. He stood there, dripping water in the dingy, smelly restroom and thought, "Welcome back to ODCSLOG and the Pentagon. How the mighty have fallen!" He laughed at himself and decided right then and there that he would work loyally for General Art Gregg, the DCSLOG. Thompson would give his honest opinions on what he thought should be done; if Gregg accepted his advice and counsel or not, that was fine — Gregg was the boss. If things did not work out, he would leave.

Loyalty has to be a two-way street. General Thompson was loyal to subordinates and appreciated it when his superiors were loyal to him. Loyalty produces dedication to an organization and its chain of command.

Selfless Service

Selfless service is variously defined in official publications. "Selfless service puts the welfare of the nation and the accomplishment of the mission ahead of individual desires," according to FM 100-1. "You must resist the temptation to put self-gain, personal advantage, and self-interests ahead of what is best for the nation, the Army, or your unit," according to FM 22-100.

Resist the temptation to put self-interest ahead of your nation, Army or unit.

While the distinctions between elements of the Army professional ethic are fairly clear, often a situation involves considerable overlap of two or more. For example, an action by an individual may touch on aspects of one, two, or for that matter, all four elements. While the purpose here is to highlight selfless service, the examples show that integrity often plays a big part.

While General Thompson was the commanding general of TSARCOM, the Army had a major helicopter program with Iran. That program involved the sale of 1,000 helicopters and a comprehensive program to train 10,000 Iranians in all the skills necessary to support the helicopter fleet. There was also a requirement to develop a maintenance depot and three direct support units at three different geographical areas of the country. This was big business. Under the program agreement the commander of TSARCOM was required to make in-country reviews of the program and of the work being done by the U.S. contractor. General Thompson made his first trip to Iran after the program had been in existence for some time. He was terribly dissatisfied with what he saw—with the Iranians, with the Americans who were running the program for the Army, and with the actual contract. When he out-briefed, he made it very clear how unhappy he was. General Thompson related being told by the ambassador that he couldn't make such a negative report: "A report of this nature would upset the Iranians and would definitely upset the Shah." In addition, by saying bad things about an American contractor, he would become a *persona non grata* in Iran. General Thompson rejected the advice: "I can only tell things as I see them and my loyalty is to the Army, not to contractors or the Iranians." After General Thompson returned to the United States, he met with the Army Materiel Command (AMC) commander, then General John Guthrie, and told Guthrie what he thought about the program and its deficiencies. Guthrie told Thompson he had done the right thing and to submit the report without change.

General Thompson could have toned down his report to please the State Department, the Iranians, and the contractor, but Thompson did not deal in half truths. His guiding ethical framework left no room for situational ethics.

As General Thompson was finishing up his three-year tour at TSARCOM, he was at a crossroads. He had had two major general assignments and thought retirement might be next. The GOMO called and told him he would get another assignment, to Europe to

be the DCSLOG for United States Army Europe. It was absolutely what Thompson wanted and he was elated. A few days later, GOMO called back and told him that they had reconsidered. Now he was going to be the Assistant DCSLOG, DA. Thompson was very disappointed. The ADCSLOG, at least as seen during four prior tours in the Pentagon, had never been a great job because of the way the ADCSLOG was used by four different DCSLOGs. Thompson told GOMO that he was not interested. If he could not have the Europe job—and he certainly understood that it was their prerogative to change assignments — then he would just retire. GOMO accepted the decision and that was the end of the conversation. A couple days later, General Vessey, who was the Vice Chief at the time, called. Thompson and Vessey had been brigadier generals together in the Pentagon, had held equivalent jobs in ODCSLOG and ODCSOPS, had worked closely together, and were friends. Vessey said, "Tommy, nobody is making any promises to you. Nobody is going to commit themselves to you, but we need you in that job. We need you to be ADCSLOG. General Meyer needs you in that job." So, Thompson agreed to take the job.

Thompson's framework had no room for situational ethics.

General Thompson's decision to accept the ADCSLOG job and to subordinate personal gain and preference for the good of the Army was truly selfless service. He was bitterly disappointed at not getting the Europe job, but since the Army leadership needed him in Washington, he answered the call to serve.

The professional Army ethic (Duty, Integrity, Loyalty and Selfless Service) are the essence of military professionalism and served General Thompson well. From his earliest to his last days of military service, the Army professional ethic guided his career. According to FM 100-1, "The Army ethic sets standards by which we and those we serve will judge our character and our performance. Each leader is personally accountable to ensure these standards are upheld." General Thompson met this challenge, and his uniquely successful career reflected his character and professional fiber.

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Quartermaster Corps

Purpose

Arrange for or provide supplies, materiel management, distribution, procurement and field services to support and sustain soldiers, units and their equipage in peace and war.

Mission

Arrange for or provide in peace and war:

Major end items, repair parts, rations, water, petroleum, individual and organizational clothing and equipment, personal demand items, storage and distribution of maps, fortification and barrier material and materiel to support military and nonmilitary programs.

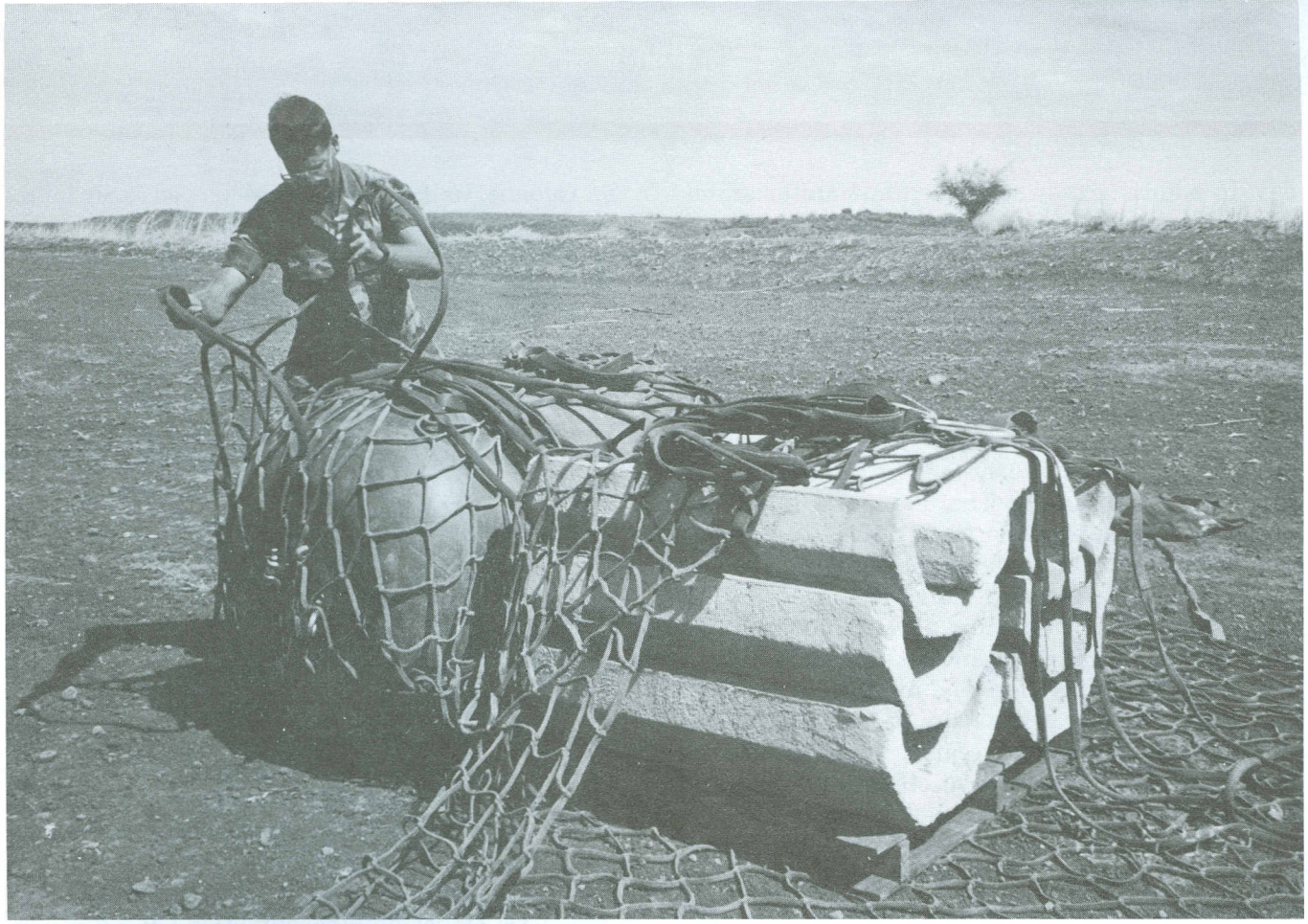
Field services including laundry and shower, fabric repair, mortuary affairs, classification, reclamation, salvage and property disposal.

Parachute packing, maintenance, and aerial delivery.

Training and professional development of Active Army, Reserve Component and civilian personnel in proponent and common skill areas.

Doctrine, systems, and force integration to include research, development and acquisition in proponent areas.

Post exchange and commissary support.



This Quartermaster sergeant single-handedly slingloaded more than 850,000 pounds of building materials, equipment and various classes of supply during Joint Task Force Builder '95 in El Salvador.

Rely on the CSS Soldier

LTC Charles H. Shaw III *LT Stephen Gil* *LT Geoffrey Keillor*

This article was originally submitted in early Summer 1995, following an extremely arduous 1995 exercise season and series of humanitarian operations in Central and South America. Since this time, the continuing U.S. Army drawdown combined with the Panama Canal Treaty Implementation Plan have brought significant changes to the U.S. Army South (USARSO) and Panama. The 41st Area Support Group (ASG) and 193d Support Battalion have inactivated, effective 15 Oct 95. The entire logistical support structure of the 41st ASG that included over 1,000 active duty soldiers, numerous civilians and multiple battalions/units has now been replaced with a small and very austere area support battalion, the 245th Support Battalion, totaling only 325 personnel. The many significant contributions of the 41st ASG and the 193d Support Battalion during Operation Just Cause and Uphold Democracy, in support of nation-building throughout Central and South America, and during numerous operations other than war helped promote the peaceful transition to free governments and brought about better lives for thousands of Latin American People.

This might sound like a joke to you. How would you like to support over 20,000 troops in one year located from the South of Mexico to the Tierra Del Fuego (an area of 3,000 miles by 5,000 miles) with only two battalions of combat service support (CSS) soldiers? I hear you laugh, but that is exactly what the men and women of the 41st ASG did every

day. In addition, they supported humanitarian migrant relief operations in summer 1994 for another 4,000 troops and almost 10,000 Cuban migrants in Panama at the same time. Tough to do? Yes! Mission impossible? No, not with the quality soldiers in CSS today!

The 41st ASG was the only permanently assigned U.S. Army CSS unit in the theater with just over 1,000 soldiers assigned. The group supported up to 40 operations or exercises in 19 Latin American countries annually. The mission required the group to tailor support for the USARSO units, Special Operations and numerous Reserve Component exercises conducting many diverse operations. To succeed, they took maximum advantage of the sustainment imperatives — anticipation, integration, continuity, responsiveness and improvisation.

The true hallmarks of the group's ability and success were the initiative and competence of the individual noncommissioned officers (NCOs) and soldiers who made up these small yet robust logistical support elements (LSEs) which operated independently under some of the harshest conditions in Latin America. The group supported many operations and exercises simultaneously, causing a single section or platoon to deploy to multiple locations, usually in different countries at the same time. This required bright young soldiers who performed independently or in small groups with little or no supervision.

Hey Man, I'm Thirsty

Water production support for the U.S. Southern Command (SOUTHCOM) area of responsibility consisted of the Water Section in the Supply Platoon, Company A, 193d Support Battalion. With only eight soldiers and four 600-gallon per hour (GPH) Reverse Osmosis Water Purification Units (ROWPUs), the section supported several nation-building and other operations each year. Company A's water section consisted of a staff sergeant leader, two sergeant team leaders, and five to six enlisted soldiers who operated and maintained the four 600-GPH ROWPUs. The water section's strength was in those sergeants and water treatment specialists who had the training and initiative to operate in remote locations with little guidance.

While the 193d Support Battalion was recovering from the 1994 exercise season in June and July, the call came to prepare for a now-familiar operation other than war, humanitarian migrant relief. During July and August 1994, migrant relief efforts were started in Suriname for Haitians and Panama for Cubans. Half of the section deployed to Suriname with two ROWPUs to purify water for a 500-person base camp and a potential migrant camp of 5,000 Haitians.

Simultaneous Missions

At the same time in Panama, USARSO was preparing to receive up to 10,000 Cuban migrants. The water section's equipment was augmented by 20 20,000-gallon collapsible storage tanks and 20 3,000-gallon semitrailer mounted fabric tanks (SMFTs) shipped from the United States. The section worked with the Directorate of Engineering and Housing in Panama to construct water storage sites next to the migrant camps with the 20,000-gallon tanks and later implement a pipeline distribution system. The section then worked with Company A's Transportation Platoon using the SMFTs to line-haul water from an approved site to the 20,000-gallon tank storage/distribution site. The water crews, who transported an average of 60,000 gallons daily, usually consisted of a sergeant and two enlisted soldiers. They also pumped and distributed water from two wells drilled later.

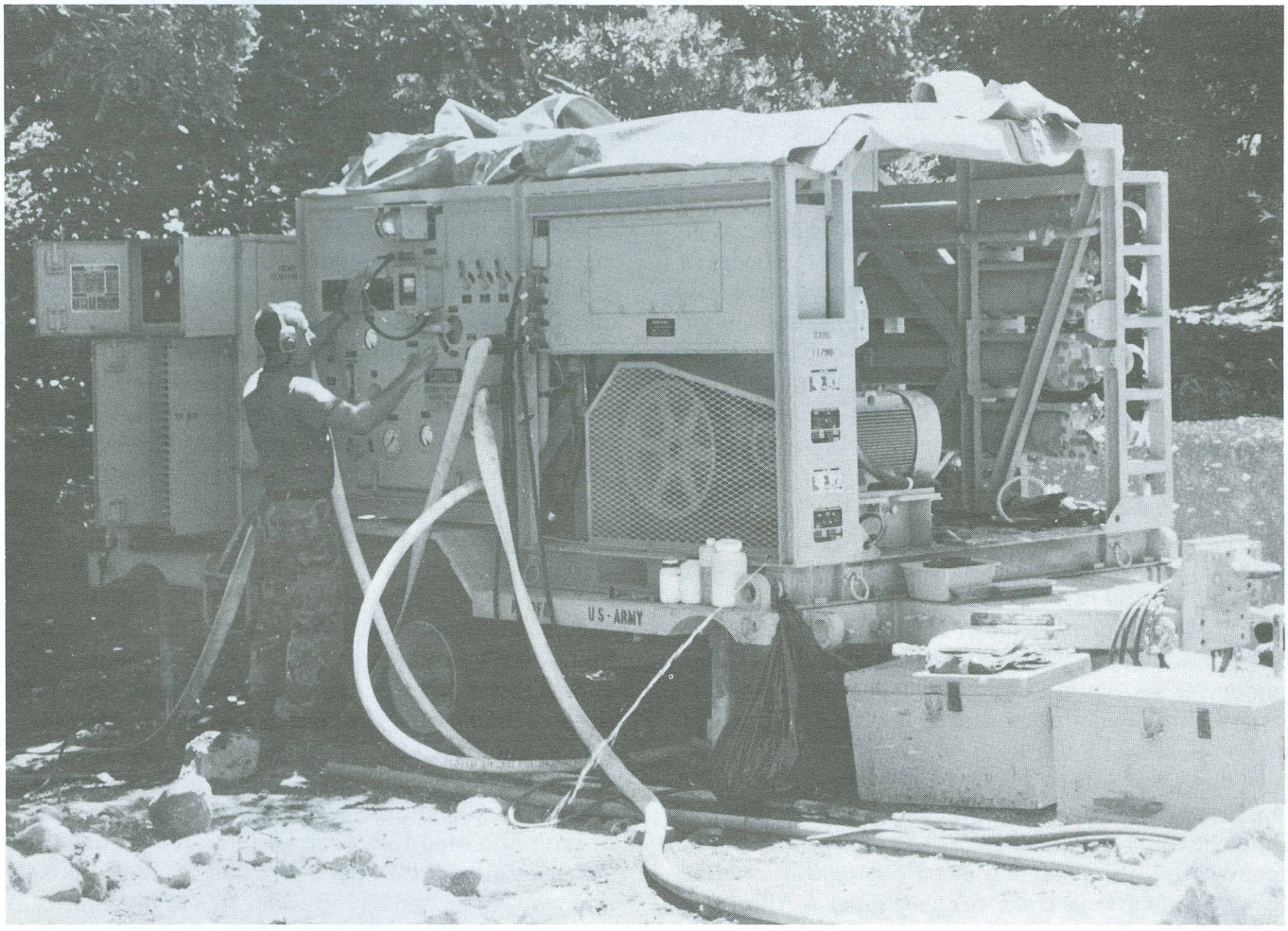
By December, daily consumption had risen from 60,000 gallons to 120,000 gallons. The Joint Task Force (JTF) commander decided to supplement the water operation, and two ROWPUs were deployed to a small river next to the migrant camps. Three more ROWPUs were issued from the Theater Equipment and Maintenance Site (TEAMS) because of the section's deployment to El Salvador in support of JTF Builder at the same time. Typically, a sergeant and two enlisted soldiers were on each ROWPU team. However, during January and February 1995, the water section found itself divided into three elements and significantly understaffed with supporting an LSE in El Salvador, operating the well and ROWPU sites in Panama, and also line-hauling and distributing water.

What made all the diverse operations work was leadership at the team level and the individual competence and dedication of sergeants and specialists who had the personal initiative to make things happen. The embodiment of this can-do attitude were soldiers such as one specialist who deployed to El Salvador in support of JTF Builder. JTF Builder was a typical USARSO operation involving the construction of infrastructure in Central America by U.S. Army Engineers. This specialist deployed as part of a team with the 600-GPH ROWPUs. The ROWPUs were first set up at a base camp site. However, as the operation developed, one of the ROWPUs had to be airlifted to a forward secondary site.

The responsibility for operating this single ROWPU fell upon the lone specialist. He was the perfect example of an enlisted soldier acting with minimal guidance and a lot of training and personal initiative. This specialist excelled at producing 3,200 gallons of water daily. In addition, he helped the one cook prepare meals for the camp, and he operated engineer equipment, forklifts and other materiels handing equipment (MHE). On one occasion, he attempted to use his combat lifesaver skills after a local man was fatally shot. This specialist also provided key transportation support during slingload operations at the site. He even saved the day during the operation by developing a plan to provide electrical power using the ROWPU's generator when all other power generation assets at the forward location became inoperative. This all occurred with no NCO supervision - highlighting use of all the sustainment imperatives at the lowest level. This lone specialist proved the worth of the CSS soldier in every respect.

How Do You Get There From Here?

The U.S. SOUTHCOM area of responsibility has every type of terrain imaginable, covers large expanses, but has fewer than 9,000 miles of paved road. Transportation is often the "Achilles Heel" of logistics in the region. This is why the Air Force's only Composite Air Wing with C-27 aircraft and the Army's only Composite Boat Company are stationed in Panama. However, fixed wing aircraft and medium or heavy watercraft can only reach so far. All USARSO soldiers rely on transport such as the 128th



By himself, this Water Treatment Specialist operated a 600-GPH Reverse Osmosis Water Purification Unit to produce 3,200 gallons of water daily at a remote forward site during Joint Task Force Builder '95 in Central America.

Aviation Brigade's helicopters or even horseback and packmule. More than anything else, slingload support is a vital element in all operations. The types of missions supported and their remote sites required a helicopter to move materiel, equipment and personnel. The majority of slingload support for USARSO came from Company A, 193d Support Battalion, which also included an Airborne Rigger Detachment. In most cases, the slingloading was a secondary mission for all CSS soldiers in the command. The result of this dual mission requirement created some very well-rounded, multifaceted NCOs and enlisted soldiers.

One particular sergeant with military occupational specialty 77F (Petroleum Supply Specialist) embodied this multifaceted soldier. As a Petroleum Supply Specialist, he had been deployed 20 of his 26 months in Company A. During these deployments, besides responsibility for a three-soldier fuel support team, he gained fame for his abilities to slingload materiel. He became the USARSO "expert" in slingload operations.

Some of the operations that relied on this sergeant's hard work and expertise were JTF Builder '93 and '95 in El Salvador; Task Force Rushmore in Caisan, Panama; Cosecha Amistad 94-1 in El Toro and Oku, Panama; and *Operation Distant Haven* in Suriname. He thrived on deploying and providing support throughout the theater. His reputation was such that he was asked for, by name, especially on "moment's notice" missions such as a plane crash recovery in the jungle outside of Colon, Panama, and earthquake disaster relief in Naiva, Columbia, during which he "slung" one million pounds of supplies and equipment.

His most recent deployment was to support JTF Builder '95 in El Salvador. This was a typical USARSO mission in which units were deployed in nation-building exercises to construct schools, roads and bridges in remote parts of Central America. He single-handedly loaded over 850,000 pounds of building materiels, equipment and various classes of supply. He slingloaded all materiel for construction of a complete school by himself.

The most difficult part of his mission involved the preparation and inspection of materiel which often formed irregular loads. These loads could not be found in any slingload manual. Keeping this in mind, the sergeant stressed safety above all else. After nine deployment missions working with fuel and slinging over four million pounds, his safety record was perfect.

He also did not keep his knowledge to himself. He trained his petroleum, oils and lubricants (POL) soldiers and other sections in the 193d Support Battalion who deployed with him and was instrumental in training the U.S. Army Reserve and Army National Guard units that deployed to USARSO on missions. His unique accomplishments exemplified imperatives such as anticipation, responsiveness and improvisation in the CSS soldier.

Call Home

Logistics automation support to most exercises and particularly USARSO units was also necessary during many of these exercises and operations. A variety of methods accomplished this requirement. Most forward locations and very small elements operated manually for supply and maintenance actions. Longer duration or larger operations with forward operating bases or fixed base camps had LSEs with direct support maintenance and even tailored supply support activities (SSAs). Depending on size and scope, these split operations were automated using the Unit Level Logistics System, Standard Army Maintenance System (SAMS) and Standard Army Retail Supply System-Objective (SARSS-O) at the forward site.

These methods rely on a couple of key factors: communications and technical competence. Integration of the latest Logistics Standard Army Management Information System with current tactical and strategic communications hardware was challenging and successful. The marriage of new SARSS-O computer and communications software with Mobile Subscriber Equipment and satellite communications using digital interfaces such as the TELLAB-2B Interface Box or Tactical Terminal Adapters (TTAs) allowed a SARSS-1 SSA and SAMS direct support unit to deploy to El Salvador with JTF Builder and then to submit or receive requisition or status data electronically with materiel management centers in Panama or all the way to the continental United States. The innovation and competence of CSS and Signal NCOs from the 193d Support Battalion and 106th Signal Brigade consummated the marriage of these technologies. Young NCOs, along with contractors helping field these systems, broke the code.

Also, young soldiers — operating with limited NCO supervision and often operating alone — set up, ran and repaired these systems. These included specialists from Company B, 193d Support Battalion, who supported JTF Builder in El Salvador. One specialist was the sole computer repairer in El Salvador while another specialist was the only SARRS-O operator. The system was so efficient that JTF Builder's order ship time (OST) was less than the

OST of units stationed in Panama. The system even directed the JTF Builder SSA to process lateral issues back to units in Panama and Honduras from their stocks when supply availability became low on critical items. The willingness to accept new challenges and win using all the sustainment imperatives was more than evident in these young soldiers who ran this show for almost five months.

So What's the Deal?

The bottom line is that today's CSS soldiers are the best they can be. Given the right training, encouragement and resources, even the most junior of these soldiers will make the mission happen. The many diverse missions in the U.S. SOUTHCOM area of responsibility during the past year, of necessity, forced CSS units to deploy forces in nondoctrinal organizations and nontraditional roles. They bent at times, but they never broke. The need to draw on individual soldiers and small units in order to meet these requirements proved the true worth of each and every CSS soldier in the 41st ASG, not just the ones mentioned in this article.

Trust and use your soldiers, be willing to take risks with young NCOs, allow them the opportunity to excel, and tell them why. They won't disappoint you.

LTC Charles H. Shaw III graduated from the United States Military Academy at West Point, New York, and has held numerous positions at battalion level, as an analyst at the Defense Logistics Agency, and in the Office of the Deputy Chief of Staff for Logistics at U.S. Army South in Panama. Most recently, he served as Commander of the 193d Brigade Material Management Center and Executive Officer of the 193d Support Battalion in Panama. He is currently a Military Instructor in the Operations Research Department, U.S. Naval Postgraduate School at Monterey, California.

LT Stephen Gil graduated from the University of Miami. He is also a graduate of the Quartermaster Officer Basic Course, Fort Lee, Virginia, and Airborne School, Fort Benning, Georgia. His previous assignments include S4, Petroleum Platoon Leader in Company A (Supply and Transport), and Training and Operations Officer in the 193d Support Battalion in Panama. He is currently Executive Officer, Company E (Supply and Service), 245th Support Battalion, Fort Clayton, Panama.

LT Geoffrey Keillor graduated from Texas A&M Corps of Cadets. He also is a graduate of the Quartermaster Officer Basic Course, Fort Lee, Virginia, and the Airborne School at Fort Benning, Georgia. His previous assignments include 41st Area Support Group Assistant S3; Joint Task Force Distant Haven J4; and Supply and Service Platoon Leader in Company A, (Supply and Transport), 193d Support Battalion in Panama. He is currently a Platoon Leader in Company E (Supply and Service), 245th Support Battalion, Fort Clayton, Panama.

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Tooth to Tail Ratios: Lessons From the Digitized World of Wal-Mart

CPT Vernon L. Beatty Jr.

What does a G.I. Joe doll in the local Wal-Mart store have to do with supporting the rapid deployment of U.S. Army forces?

This is a question which, at first, may seem ludicrous.

With a little background knowledge and some intuitive thought, however, the seeming chasm between the worlds of retail and military distribution becomes a small and valuable step forward. Although most of us think of Wal-Mart Stores Inc. in terms of local discount shopping, the company is in fact much more than just a store. It is an organization with a base of knowledge and technology from which to draw valuable lessons on the art of supply chain management.

General Robert H. Scales, in his book, *Certain Victory: The U.S. Army in the Gulf War*, described some of the problems encountered by the U.S. military in the rapid buildup of combat forces during *Operation Desert Shield* in Southwest Asia. In the opening months of the operation in 1990, logisticians faced major problems in keeping track of the location and contents of container shipments from point of shipment in the U.S. to point of issue in Saudi Arabia. Early in the planning of the operation, the decision was made to err on the side of combat power (in the form of combat arms personnel and equipment) and to operate lean on logistics personnel, a risk that General H. Norman Schwarzkopf was willing to accept. This created an expected but still painful void in some key logistics functions. The shippers of containers often provided only the minimum documentation that transportation regulations allowed.

According to General Scales, "Because the personnel needed to document the receipt of materiel were not among the early arriving units, stacks of containers sat in ports unprocessed, their exact contents unknown." Locating a specific high priority item for expedition was an arduous task to say the least. Items shipped by air were not immune to this problem. Even with tail number identification, air shipments were still lost. If there were problems at the port, just imagine the difficulty in identifying a misshipped container arriving to you in the middle of the desert! From experience, I can tell you that wading through mounds of jumbled table of organization and equipment supplies in a container, trying to find some way to identify its owners, is not easy.

Fortunately for deploying U.S. forces, however, Saddam Hussein assisted in the buildup of U.S. combat power, allowing coalition forces in the Persian Gulf to amass for attack. Saddam, in his decision to shift to the defense, allowed the U.S. tail to catch up with the teeth. Will future enemies be likely to repeat this mistake? For that matter, will U.S. airlift and sealift capabilities be increased to a level that will guarantee that leaders in the next rapid buildup scenario will not have to make the same choices between deployment of combat power and logistics support?

Simple Answer

In the midst of this "tooth or tail" dilemma, where do Wal-Mart and its methods of distribution come in? The answer is simple. Using automated systems and a little common sense, Wal-Mart does more with less. For years, Wal-Mart has been keeping track of billions of items from point of purchase to point of sale with a logistics force amounting to less than six percent of its total work force. In 1994, the company managed to transport, receive, store and issue (sell) nearly two billion cases of freight through its automated distribution network. Although the actual numbers are classified as confidential by Wal-Mart executives, all performance factors (safety, receiving, order filling, cyclic inventory, shipping accuracy and so on) were in excess of 99 percent. The bottom line: the company lost track of less than one percent of Wal-Mart's two billion cases! A great deal of this success is attributable to an immense relational database and state-of-the-art distribution system technology.

All data necessary to manage freight flow through the supply chain (in-transit supply status, trailer locations and contents, warehouse receiving and shipping, and point of sale information from individual customer purchases at the store) are stored in one database. Every evening, the home office in Bentonville, AK, receives incredible amounts of digital information via one of the largest privately owned satellite communication networks in the world. Each of the over 2,000 Wal-Mart stores transmits point of sale information on what was sold that day while over 20 regional distribution centers transmit information on receipts and shipments and the transportation management system updates data on inventory intransit. All this information is downloaded into the largest civilian-owned database in the world and rests at the fingertips of the supply chain management team.

At the distribution centers, freight flows through the system like the notes of a brilliant symphony. When the freight is unloaded, it is placed on a conveyor and carried past a bar code scanner. Information from the bar-coded label on the case of freight is matched against purchase orders. In the blink of an eye, a new bar-coded label is printed and put on the box showing the item, price, warehouse location, receipt data, stock number and final destination (store number).

Using the bar-coded information on this label, freight is automatically routed through the distribution center by scanners and conveyor switching points. The freight flows down shipping lanes, each of which represents a separate truck route. The truck is loaded and the driver pulls away, confident that the freight in the truck belongs to the stores located along the route. The very next day, the process begins again as warehouse bins that were depleted by the previous day's shipments are filled again with new freight. So how can this type of system benefit the military?

Consider a system that provides immediate documentation on container contents and routing instructions to its final destination. Logistics personnel at the U.S. port would scan and verify contents, port of debarkation, and final customer unit and enter this information into the battlefield distribution system (BDS) database. Transmitted at light speed throughout the network, this information would be instantaneously available to all supply chain customers, from contractors to deployed supply units. Once at the port, scanning the bar-coded label would automatically give a "received at port" status and either assign a storage location at the port container yard or expedite the shipment to a transportation unit. The database could provide an inventory, by item, of all containers on the yard as well as a map diagram of the yard to assist in locating specific items. Because bar codes and database fields can represent anything from Meals, Ready to Eat to major end items, information about any container could be added, deleted or changed at any point along the supply chain.

Logistics Cadre

Such a system would allow relatively untrained personnel to operate under a highly trained logistics cadre from the rapid deployment force to perform many logistics functions which now can only be performed by experienced transportation and logistics

personnel. Personnel at the port of Dammam, for example, could scan a bar-coded adhesive label and have immediate access to all information in the BDS about that container. If the contents happened to be in critically short supply, the system might redirect that container to units in contact.

Integrate the system with the battle command system envisioned by the Force XXI initiative and the possibilities are endless. The system could provide the most current grid location of the customer unit. Transporters would be able to scan the bar-coded label as the freight is loaded on the truck and view the customer's grid location on a display terminal in the cab of the vehicle or at least get a printout of the grid. With global positioning technology and timely update of the battle command system information, the system might eventually provide the driver with a map display of his current location and the location of the delivery point.

Computer Server

All this could be managed by the emplacement of a computer server and communications link. A small server unit equipped with local cellular capability could receive, transmit and manage data on activities at the port of debarkation. A satellite link could in turn upload and download information from both the main processing unit at the sustainment base in the United States and deployed units in the theater of operations. Most of the senior logistics decision makers typically found at a port facility could be located at the sustainment base instead of theater ports and airheads.

Small logistics "quick reaction teams" could deploy with the necessary expertise and systems hardware to set up to receive deploying combat power. If airlift and sealift space were limited, as in *Operation Desert Shield,* host nation support personnel or combat arms personnel already deployed could be used to supplement the team with manpower until space could be freed up to transport logistics personnel. Because the process of receipt, storage and distribution would be simplified by technological innovations, the ratio of tooth to tail in theater could be increased without the risk of botched shipments and loss of critically needed supplies. "But this all sounds impossible!" you might say. Why?

Why, in an age where the difference between information such as in-theater requirements, confirmation of receipt, container contents, mode of shipment, and customer unit grid location is merely a few binary numbers, is it so difficult to use all of this information at one time and in one place to better manage distribution? This question is obviously too large for one article to manage. The starting point for any such system is a distributed database which emphasizes the concepts of connectivity and information sharing.

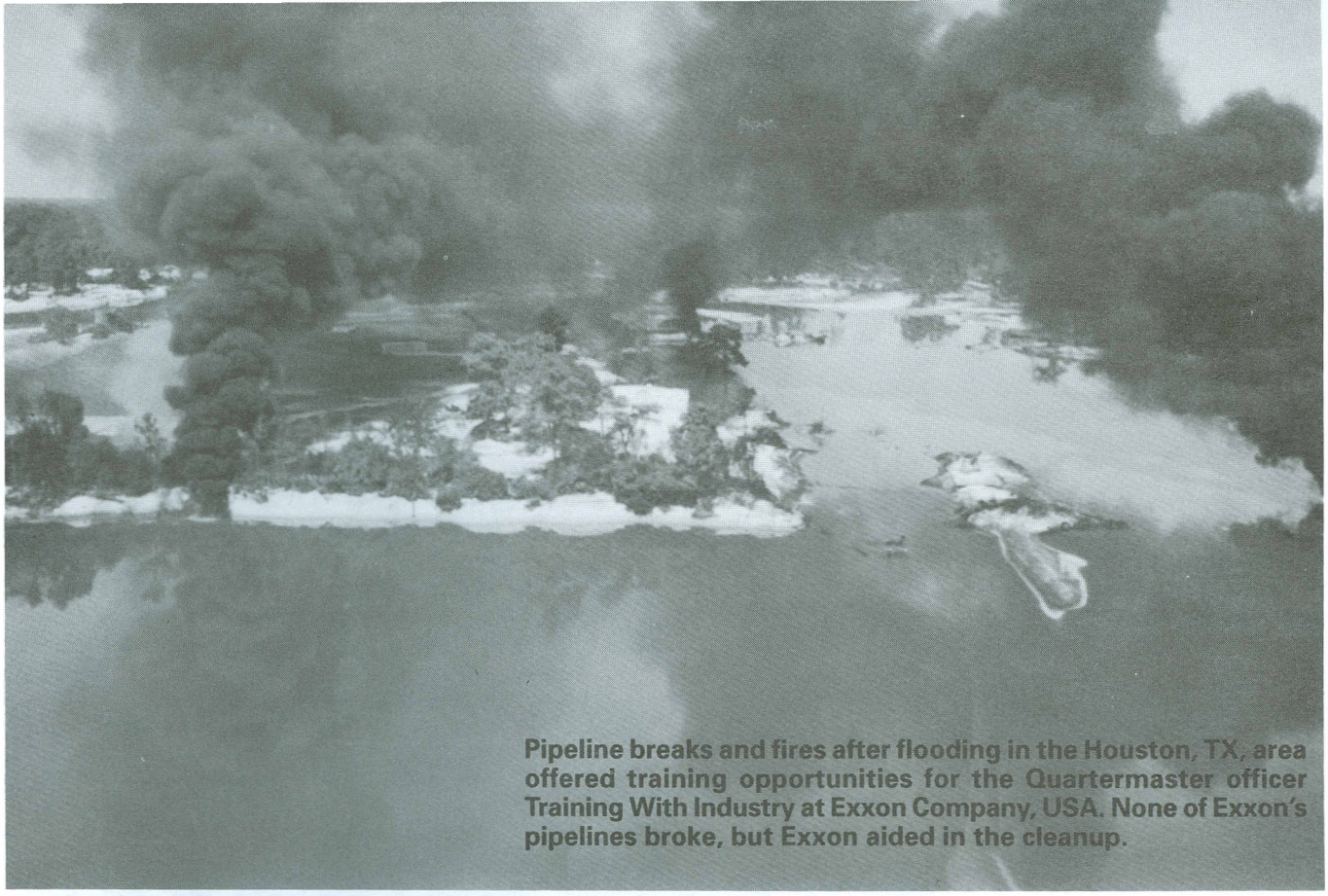
This is what Wal-Mart has developed. Wal-Mart maintains a central database that processes all information about an item from the point of purchase to the point of sale. All information servers download their information nightly to the main database in Bentonville, AK. The information is then processed, updated and downloaded back to network users in useable form.

The Army, on the other hand, maintains multiple computer tracking systems such as the Standard Army Maintenance System, Standard Army Intermediate Level Supply System, Standard Army Retail Supply System, Direct Support Unit Standard Supply System, and the Unit Level Logistics System. Systems manage different classes of supply at different levels with differing degrees of detail. This does not even consider systems used by the U.S. Navy, Air Force and Marines. Then there are all the "off-line" spreadsheets and databases used by logisticians in support commands, corps support commands and division support commands to estimate supply requirements and inventories on hand. Throw in the Military Traffic Management Command and other mega-organizations in the military establishment and what have you got? Potential chaos.

Asset Visibility

Of course, Wal-Mart does not have to pick up and move a store from Augusta, GA, to Columbus, OH, every day. However, if there is one thing the U.S. defense industry has proven over the years, it is that where there is Pentagon will, the defense industry can find a way. If Wal-Mart can figure out continuity of control and asset visibility in the supply chain, cannot the U.S. Department of Defense do the same? If military logisticians are to ride the wave of Force XXI digitization rather than being swept under the current, the answer has got to be yes.

CPT Vernon L. Beatty, Jr. is a Quartermaster serving in the Defense Logistics Agency as Aide-de-Camp to the Commander, Defense Construction Supply Center, Columbus, Ohio.



Pipeline breaks and fires after flooding in the Houston, TX, area offered training opportunities for the Quartermaster officer Training With Industry at Exxon Company, USA. None of Exxon's pipelines broke, but Exxon aided in the cleanup.

The Army's Petroleum TWI Program

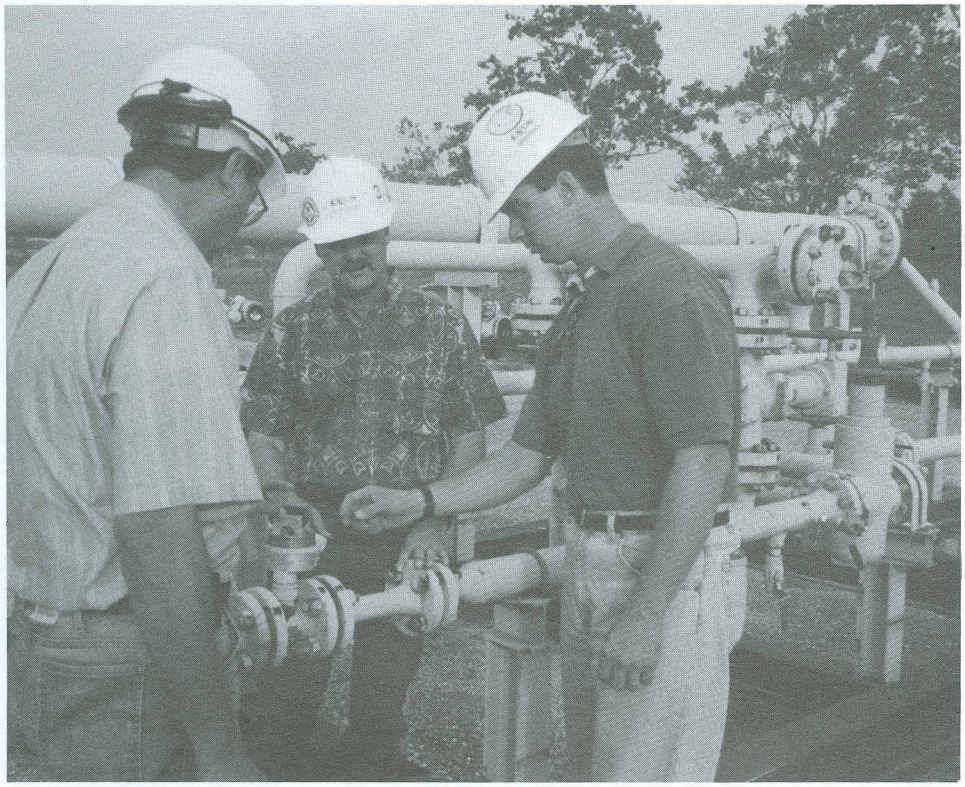
CPT Stanley B. Olson

The fire raged out of control as crude oil and diesel fuel spread over the San Jacinto River in Houston, TX. A flaming barge rumored to contain cyanide drifted toward populated areas. Schools were evacuated and major highways were closed in the region. No, this was not a drill. Welcome to the Army's petroleum Training With Industry (TWI) Program at Exxon Company, USA.

In the above scenario, flooding had caused multiple pipeline breaks. Although none of the pipelines belonged to Exxon, the company did contribute to that containment and cleanup effort. Early in my program, assigned to Exxon Pipeline Company, I was able to help Exxon maintain operations during these adverse conditions. Exxon's complete preparedness and rapid reaction to reduce the oil's environmental impact showed me the professionalism that I would encounter throughout the organization.

My 10-month TWI assignment with Exxon was well-structured and exciting, and TWI offered an outstanding opportunity for professional development. My training agenda began with upstream operations in exploration (finding the oil) and production (getting the oil out of the ground), and followed the flow of oil through pipelines, the refinery and into the product terminals and service stations. My objective was to understand the fundamentals of the petroleum industry and return to the Army with efficiency and safety concepts and technologies as well as a broad industry perspective.

Both Exxon and the U.S. military are large organizations striving to meet their objectives with budgetary constraints. After spending most of my military career in deployable units, I was somewhat naive about the tremendous downsizing in the civilian sector. Much like the Army, Exxon has reduced its personnel staffing levels to remain competitive in a mature industry. Since 1985, Exxon Company, USA has downsized by approximately 40 percent. At the same time, petroleum requirements and governmental regulations have significantly increased. So how has Exxon progressed during these difficult



Exxon pipeline company engineers reviewed equipment in Houston, TX, with the author (right) during his Training With Industry program in 1994.

times? The company implemented continuous improvement and re-engineering programs and used a proactive management system designed to reduce risk and manage internal and external changes. Also, Exxon invests in state-of-the-art technology to maximize efficiency.

Automation

Automation is a common tool for both the military and industry to increase personnel efficiency. By automating most recurring processes, Exxon has become more efficient in training, communications and petroleum operations.

Training Automation

With increased governmental regulations and harsher penalties for impacting the environment, the petroleum industry stresses training. Computer-based training (CBT) is the industry's current trend to provide standardized training to employees at reduced costs. CBT is an interactive computer program that simulates normal and abnormal conditions using animation. With CBT, training modules are developed to support initial and refresher training. The modular training includes an end-of-module test in which the results are electronically transferred to a centralized database. Employees can train in the field during duty hours. The interactive process stimulates the employees' interest and that helps increase retention levels. This standardized training also eliminates instructor bias. Standardized videos are produced for mandatory refresher training when it is not economical to use CBT. The Army may benefit by incorporating CBT for its numerous annual training requirements.

Communications

Exxon uses a voice mail phone system to manage its voice communications. Imagine never hearing a busy signal or the endless ringing of an unanswered phone. The voice mail system can be remotely accessed by a touch tone phone from anywhere in the world 24 hours a day. While at a meeting, in the field or on a trip, an employee can continue to monitor and manage operations effectively using the voice mail system. Due to the required mobility of most military personnel, the voice mail system would be ideal to help manage Army telephone communications.

Most written communications within Exxon are performed on a worldwide electronic mail system. Electronic mail (E-mail) enables employees to send and receive messages, maintain calendars, view the

calendars of other employees, schedule meetings and conference rooms, and address messages to multiple destinations. As office automation eliminates clerical positions, employees are tasked to perform their own written communications. Using the E-mail system, employees are able to communicate more effectively. They are able to pass information or coordinate upcoming events while providing hard copy documentation if necessary. Employees can gain access into this system from remote terminals with the use of a password. Many military installations use E-mail systems but may not be using such systems to their fullest capability or may only be using E-mail at higher echelons.

Electronic Data Interchange

Electronic data interchange (EDI) is a computer-to-computer system designed to reduce transaction processing times between any trading partners. It creates human-free ordering, invoicing, quality testing and payment processing. By eliminating human interaction, the electronic process also increases accuracy. By submitting early payments, buyers will be able to take advantage of discounts. Suppliers will benefit by accruing additional interest. The Defense Fuel Supply Center, Cameron Station, VA, recently initiated EDI transactions with its suppliers. Exxon currently performs EDI with many of its customers. EDI may also be an advantage for all in the Army's contracting process.

Other Technologies

Exxon has automated most activities at each of its product terminals. Using state-of-the-art technology, Exxon personnel can monitor and activate terminal security, fueling operations, inventory management, resupply operations and invoicing from one remote location. Other technologies that protect the environment are also used as mandated by the environmental authorities and Exxon management. Although these technologies are useful commercially, I do not see their immediate use by the deployed Quartermaster soldier providing support in underdeveloped theaters. This technology, however, may be beneficial in a long-term deployment when commercial facilities are available.

Fuel Handling

Although I found few technologies to increase efficiency for the field soldier, I did reaffirm my confidence in the Army's fuel-handling procedures. From the frequency of changing filter elements on a filter separator to quality control activities after a pipeline receipt, I found few differences between Exxon and the Army's procedures. The American Society for Testing and Materials or American Petroleum Institute standards used by the military are the same standards used by the petroleum industry. From my experiences, however, operator environmental awareness is significantly greater within Exxon.

I reaffirmed my confidence in the Army's fuel-handling procedures.

Environmental Awareness

With our military objectives as our primary concern, soldiers must include environmental protection whenever possible. As the Army's role in humanitarian relief efforts increases, soldiers do not want to damage the environments of countries we are trying to assist.

The Oil Pollution Act of 1990, as well as Exxon policy, mandates that all who handle petroleum products shall maintain site-specific spill response plans and maintain adequate resources to execute the plan. Also, Exxon has purchased and prepositioned cleanup equipment at regional locations. Exxon and the federal government conduct exercises to test their response teams. Military petroleum units should deploy with adequate cleanup materials to protect their immediate area and coordinate with contractors to provide cleanup equipment for larger spills. If working near water sources, responsible parties should understand the flow of the water and identify sensitive areas downstream that need protection. The Army may benefit from incorporating environmental protection into exercises at all levels.

Strategic Energy Outlook

The United States now imports over 50 percent of its crude oil for domestic needs. History has shown that the oil supply line may become a country's "Achilles heel" very quickly. Oil dependency was a major factor in the defeat of Nazi Germany and Japan during World War II. With longer crude oil supply lines,

the U.S. military must strategically plan for defense of these longer oil supply lines. With a downsizing military, this may be more difficult to achieve and may require help from our allies.

Economics

Industry is accountable to its shareholders and must allocate resources responsibly to generate a higher return on investment. Therefore, economics is usually the foundation in industry's decision-making process. The military is also accountable to its shareholders, the American people. As the military downsizes and budgets are reduced, military planners must incorporate economics into the decision-making process whenever possible. Soldiers must continue to break current paradigms and use initiative to resource activities at reduced costs. The Army must evaluate the costs against associated benefits in order to maintain a high state of readiness.

Personal Benefits

This TWI experience has better prepared me for my next assignment at the Defense Fuel Supply Center. The Defense Fuel Supply Center has the mission to provide comprehensive energy support to the Department of Defense in the most effective and economical manner possible. My broad industry perspective and understanding of industry's basic structure and objectives should help as I negotiate contracts or support the contract negotiation process. Also, I had the opportunity to conduct project work and refine the decision-making process learned at the Army's Combined Arms Services Staff School to make recommendations to Exxon management. By understanding the business of getting fuel to the battlefield and applying better business principles, I should be able to provide optimal solutions to problems at reduced costs.

As the flames of the pipeline fires have been extinguished and the oil flows through new lines, I move back to the military — excited to contribute to the renowned supply traditions of the Quartermaster Corps. The structure of the Exxon TWI program and also the guidance, trust and unlimited opportunities provided by my Exxon training coordinator and all involved managers and trainers earmark Exxon Company, USA as a committed team player in the training of petroleum officers. I strongly recommend this program to anyone who wishes to provide new perspectives and contributions to the military's petroleum support mission.

CPT Stanley B. Olson has a bachelor of science degree from the United States Army Military Academy at West Point, New York. He is a graduate of the Field Artillery Officer Basic Course, Airborne School, Ranger School, Multiple Launch Rocket System (MLRS) Cadre Course, Quartermaster Officer Advanced Course, Petroleum Officer Course, and Combined Arms Services Staff School. His assignments include Battery Fire Direction Officer, Fort Bragg, North Carolina; MLRS Battery Operations Officer and MLRS Battalion Maintenance Officer, Fort Bragg; Directorate of Plans, Training, Mobilization and Security Operations Officer, Fort Lee, Virginia; Petroleum Operations Officer, Somalia; Commander, 267th Quartermaster Company, Fort Lee; and Training With Industry Officer, Exxon Company, USA.

Quartermaster Corps Distinctive Unit Insignia

The distinctive unit insignia was authorized June 1994 to be worn by soldiers affiliated with the Quartermaster Corps under the U.S. Army Regimental System.

The device utilizes the traditional Quartermaster Corps branch insignia with the eagle in a slightly different configuration known historically as the "Regimental Eagle." The eagle symbolizes the United States. The wagon wheel symbolizes transportation and delivery of supplies. The stars and spokes of the wheel symbolize the original colonies. The sword, indicating the military forces, and the key, alluding to storekeeping functions, symbolize the control of military supplies by the Quartermaster Corps. The wreath signifies honor and achievement.

Training With Exxon

CPT Shawn P. Walsh

As the first military officer to train with Exxon Company, USA and Exxon Corporation affiliates, I did not know what to expect during my 10-month Training With Industry (TWI) program. Before TWI, I did not have much exposure to information technology. Therefore, I was quickly impressed with the information systems used by Exxon to manage logistical systems. In this article, I will outline a portion of Exxon's enormous operations and show how Exxon uses applications of information technology to manage some logistical challenges.

Operations

Undoubtedly, our Army is the most technologically advanced and greatest fighting force in the world. By comparison, Exxon is the world's largest oil producer. In 1993 Exxon had sales of $111 billion, profits of $5.3 billion and was ranked the third largest company (largest oil company) in the world. According to an article in *Economist* magazine, "measured in perspective as a country economy, Exxon would be three times larger than the economy of Ireland."

During my TWI program, I was best able to understand the magnitude of Exxon's operations, while working with affiliate Exxon Company International (ECI) headquartered at Florham Park, NJ. ECI manages the petroleum interests of Exxon Corporation outside of the United States and Canada that account for about half of Exxon's total production of petroleum products.

ECI's supply and transportation (S&T) department manages supply and transport of petroleum products and raw materials to 27 Exxon refineries in 19 countries. Twenty-eight vessels owned by Exxon, as well as chartered vessels, are managed by ECI S&T to meet Exxon's international trade requirements. A portion of Exxon's trade requirements are based on ECI refineries that have a combined daily processing capacity of about three million barrels (126 million gallons) of crude oil per day.

In order to keep business in balance, ECI S&T must monitor refinery crude oil stocks and requirements to keep refineries supplied and must understand the type of crude oil best suited for each refinery. Analysts scrutinize hundreds of diverse crude oils available on the world markets, because quality and characteristics of crude oil varies. Refineries are designed and built to process crude oil with specific characteristics. Therefore, different crude oils have different refinery yields that impact profitability. ECI's S&T buys and sells internationally traded crude oil and refined products based upon the outcome of daily business analyses.

ECI, much like the military, plans and operates in a volatile environment. Besides the continual change of crude oil prices on the world's trading markets, business can also be affected by shipping delays caused by poor weather or port labor disputes. Shipping delays can be detrimental to a refinery, for example, that depends on a very large crude carrier cargo of 2.4 million barrels (over 100 million gallons) needed to keep the refinery running.

ECI must gather, compile, monitor and analyze an abundance of information to conduct daily business and remain competitive in the changing business environment of the oil industry. ECI management decisions are measured in terms of fractions of a penny per gallon and can add up to millions of dollars in potential profit or loss. Understandably, timely and accurate communication of information is essential to manage efficient and economic operations. Instant communication through state-of-the-art information technology is imperative.

ECI S&T management of daily logistical operations is assisted by a computing platform known as Supply and Transportation Local Area Network (SNTLAN). SNTLAN allows analysts to share and integrate a wide spectrum of ECI business information from a centralized database available to all users of the system. The blend of mainframe and personal computer applications allows users quick and easy electronic access, eliminates paper flow between offices, and maximizes distribution of information. SNTLAN also enhances ECI's business effectiveness by supporting centralized information and decision support tools, the Integrated Supply/Shipping Information System (ISIS), and on-line business information.

Single Database

ISIS programs make it easier and more efficient for S&T schedulers to share a single database that supports business needs. ISIS applications schedule petroleum and vessel movements, develop contract information, and handle invoicing and cargo payments. ISIS also provides data for business controls, financial and stewardship systems. In addition, ISIS gathers data for various business functions and supports management of crude oil, product purchases, sales and fleet utilization.

When ISIS applications were first introduced at ECI, ship communication systems were improved by replacing hard copy telexes with electronic mail. According to *Lamp*, an Exxon publication, "Exxon ships are tied into a satellite network so they can receive and initiate instantaneous telecommunications, including voice, data and facsimile, just as if they were in a modern office building instead of thousands of miles from civilization." Exxon's savings from eliminating hard copy telexes is approximately $20,000 per year, as well as the saved opportunity costs associated with allowing S&T to instantly react to shipping delays.

If there is a delay with either an Exxon-owned or a chartered ship, ECI's database allows a shipping specialist to immediately determine cargo rates and to select the international, third-party vessel available for charter and best suited to meet ECI's shipping needs. ECI's database contains information on over 7,000 vessels, 1,500 ports and 3,000 berths. The database is used to determine if tankers meet ECI's stringent safety and environmental standards and to ensure that the vessel size and manifold systems are compatible with specific ports and berths. Access to current information allows shipping specialists to immediately approve or disapprove a vessel for movement of petroleum product anywhere in the world.

Access to immediate price supply and transportation information is essential for decision makers to determine what crude oils are most economical to buy and transport anywhere in the world and thereby substantiate what could potentially be million-dollar business decisions. SNTLAN allows decision makers prompt access to real time, on-line business information (OBI) essential to follow the ever changing market prices of crude oils as well as other news that may immediately affect the entire industry. Decision makers can instantly tap into real time industry supply and pricing information provided by different news or information services that include Dow Jones Energy News, Platts Oil Global Alert and Reuters. OBI also accesses daily published industry information such as the London Oil Report and OPEC (Organization of Petroleum Exporting Countries) crude oil production and world benchmark crude prices.

Global Computing

A different aspect of instant communication technology has brought greater productivity to Exxon through global computing services and the formation of another Exxon affiliate company, Exxon Computing Services Company (ECSC). According to the Exxon publication, *Lamp*, ECSC was formed in January 1992 to capitalize on economies of scale achieved when Exxon's mainframe capacity is used efficiently and to keep pace with fast-evolving technological advances that can bring greater efficiency to Exxon's organization. Declining telecommunications costs, improved satellite technology, worldwide fiber-optic cable networks and the reliability of instant communication have allowed ECSC to consolidate computing and increase the productivity of the computing center.

An example of ECSC's use of instantaneous communication technology is ECSC's mainframe controlling the operation of Esso Standard Thailand Limited (ESTL) Bangkok, Thailand, Marketing-Distribution terminal. According to *Lamp*, "In a time span of two seconds, electronic data is transmitted via satellite from Bangkok to San Francisco, where it enters a fiber-optics network to ECSC in Houston and then data is transmitted back to Bangkok." The information transmitted includes truck driver identification number, receiving customer's account number and other invoicing information. Once the information is received in Houston, the return transmission of data allows the driver to fill his tank for fuel delivery. In addition to increasing the productivity of ECSC's computing center, this application of instantaneous communication technology has reduced ESTL computing costs 10 percent.

Since completing my TWI program, I have been assigned to the U.S. Army Combined Arms Support Command (USACASCOM) at Fort Lee, VA. At USACASCOM I have been exposed to some of the latest uses of information technology in the military and concepts for information technology applications in the future. One objective is clear in both military and industry uses of information technology: maintain a competitive advantage. In today's changing military and industrial environments, one of the best ways to maintain the advantage is using information technology to increase efficiency, optimize limited resources, and do more with less.

CPT Shawn P. Walsh recently completed Training With Industry at Exxon Company, USA, Houston, Texas, and is serving his utilization tour at the Combined Arms Support Command, Fort Lee, Virginia. He was a Distinguished Military Graduate from The Citadel with a bachelor of science degree in business administration. He completed Airborne, Quartermaster Officer Basic, Quartermaster Officer Advanced, and Psychological Operations Courses. His previous assignments include Platoon Leader, 549th Quartermaster Company; Executive Officer, Support Company-South Multinational Force and Observers, Sinai; Class III Accountable Officer, 2d Infantry Division; Commander, 114th Quartermaster Company; and Plans and Operations Officer and S5, 4th Special Operations Support Command.

Training With Industry = Quality Training

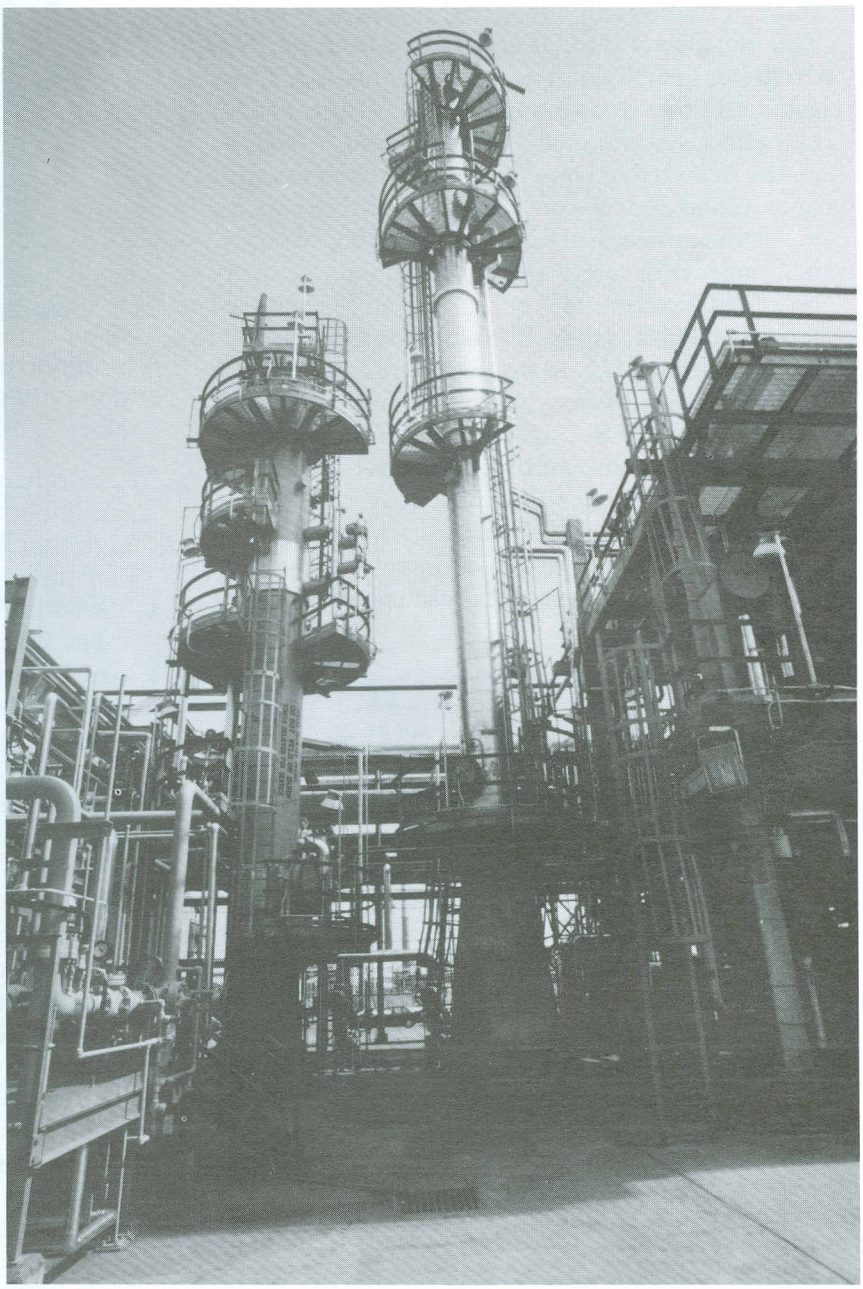
CPT Vince A. Morikawa

From September 1994 through July 1995, I took a crash course in the oil business at Sun Company, Inc. (SUNOCO), headquartered in Philadelphia, PA. I was the latest of 20 career Quartermaster officers in the Army's Training With Industry (TWI) program at Sun Company since the program began in 1975.

Sun Company owns and operates six petroleum refineries that process crude oils into an extensive line of products within the categories of fuels, lubricants and commodity petrochemicals. These products are sold to wholesale, commercial, industrial, retail and military customers. Sun's storage and distribution system uses petroleum terminals, pipelines, tanker vessels, barges, rail cars and tank trucks.

From experiences at Sun, I learned that nearly every facet of the petroleum industry has some degree of application in the U.S. Army. How is that possible? The Army does not own and operate crude oil terminals, refineries and tanker vessels. However, many of the work processes associated with the petroleum industry have direct applications in the Army. Although organizational goals may differ, many similarities exist in the leadership techniques, work processes and resources used to achieve goals.

The Army's ability to "talk the talk" and "walk the walk" with the petroleum industry streamlines the customer-supplier relationships between the two. The Army's understanding of industry management practices enhances the ability to work more effectively and efficiently with industries providing products and services to the Department of Defense. The Army's understanding of the technologies used by private industry further supports these work relationships and may also have direct application in the Army. These are the primary objectives of TWI.

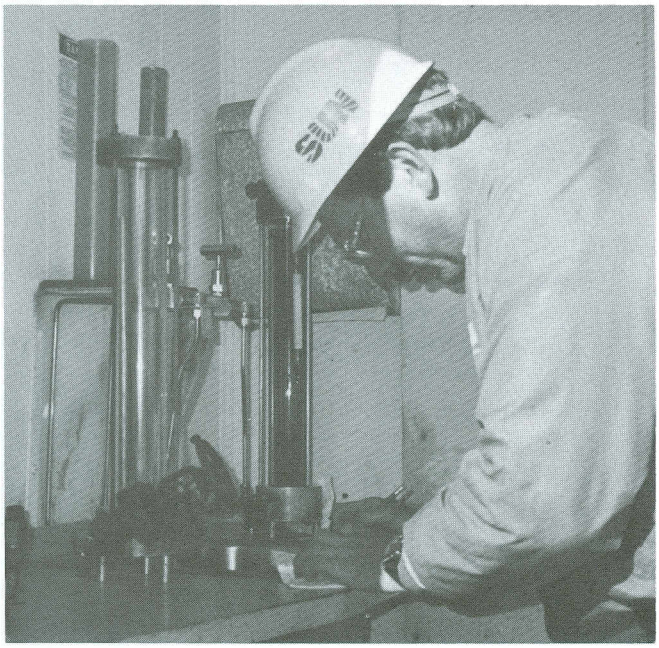


Sun's Propane and Propylene Units at the Marcus Hook, Pennsylvania, Refinery

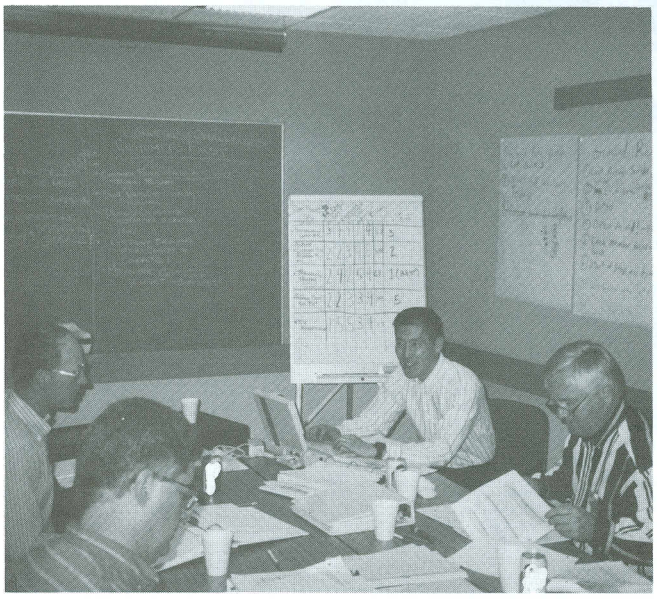
Innovation and Technology

At Sun, I was exposed to many petroleum industry innovations with practical application in the Army. While remaining sensitive to cost, simplicity and Army applicability, the following areas are a sample of the many technologies at Sun that I found of particular interest:

- **Constant Flow Device.** Sun's delivery supervisors (pump station operators) use a constant flow device when conducting interface cut (change of product) operations at terminals along their only manually operated pipeline system. This device consists of one or two thermal hydrometers enclosed in a glass viewing tube. The constant flow device is simply designed, economical, effective, and easily adapted and installed on the Army's fixed pipeline distribution systems and Inland Petroleum Distribution System. It also ends unnecessary handling of sample product, improving safety and environmental health practices. Procurement or fabrication of constant flow devices is feasible. If used, these devices will help streamline U.S. Army petroleum operations.
- **Portable Grabner Vapor Pressure Tester, Model CCA-VPS.** Sun's petroleum laboratory, terminal and pump station personnel use a Portable Grabner Vapor Pressure Tester to determine the product's Reid Vapor Pressure (RVP). The instrument also displays the total pressure, gas pressure, and absolute pressure readings of petroleum products. Determining product RVP is important in petroleum quality assurance programs. RVP indicates the vapor-lock tendency of liquid petroleum products, as well as their associated explosion and evaporation hazards. The current RVP test apparatus used by the Army is large and heavy, making transport difficult. Also, the current test method for RVP readings is slow and tedious. The most desirable characteristic of the Portable Grabner Vapor Pressure Tester is its small size (approximately one cubic foot). The tester requires significantly less sample product and time to obtain vapor pressure readings. Lastly, all displays are digital liquid crystal display (LCD), further assuring accurate pressure readings.
- **Gastechtor Multiple Gas Testing Instrument, Model 1214SMPN.** Currently, the Army uses a manually-operated combustible gas indicator (CGI) to detect levels of hydrocarbons or flammable gases in confined spaces or excavations. Army personnel are required to take CGI readings to check for explosive conditions. Sun uses the Gastechtor Multiple Gas Testing Instrument when employees may be exposed to hazardous levels of petroleum vapors. It is lightweight, fully automatic, self-adjusting, and has an audible signal when an alarm state exists. A



A terminal delivery supervisor records temperature and gravity data from a constant flow device.



The author (with laptop computer) worked on group problem-solving exercises at a corporate leadership course.

digital LCD readout is visible in light and dark conditions and simultaneously displays combustible gas and oxygen content readings.

Continuous Improvement

Downsizing, organizational restructuring and budget cuts are all too familiar to the Army and, similarly, to the petroleum industry. Despite the adversity attributed to these trends, all carry a common theme: change. Amid all this change, a fast-growing phenomenon has occurred in this country: an increased commitment to QUALITY. So what is the big deal about quality?

Sun has learned that continuous improvement must be emphasized throughout the organization to remain competitive. The leadership philosophies, the technology and associated work processes must continuously improve or adapt to changing situations. What is believed to be a quality product, service or process today will more than likely be considered poor or inadequate tomorrow. At Sun, continuous improvement initiatives are the responsibility of every member of the organization. Each employee contributes to the organization's adaptability to change, overall success and survivability.

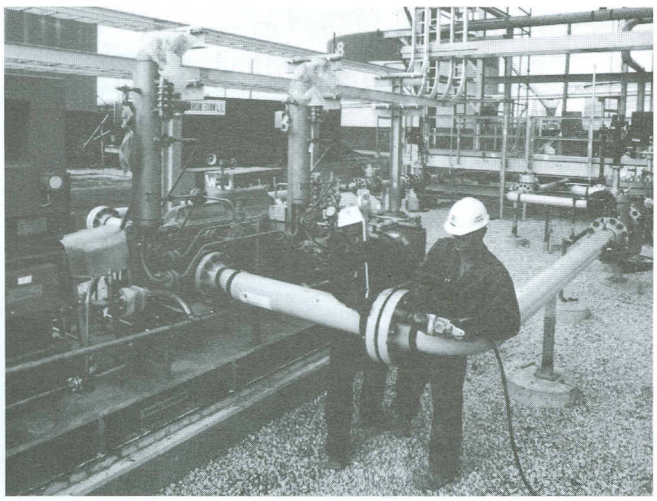
High Performance

Sun has standardized quality improvement training. This required a cultural change within the company, where Sun employees are expected to be sensitive to their respective work processes, know their customers and suppliers, and most importantly, adopt a shared commitment to realize the company's vision.

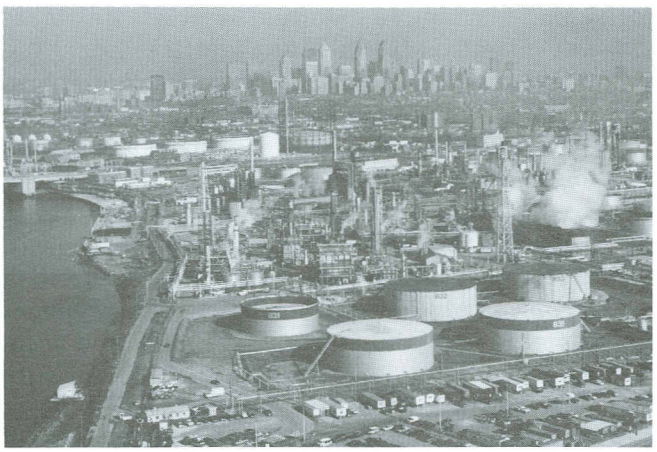
Sun's objective is to build and maintain a "high performance organization" that consistently achieves desired results. Sun's high performance organization model contains these critical elements: leadership, vision, strategy, culture, teamwork, work process, learning, technology and results.

- **Leadership** — High performance organizations have leaders who understand leadership as a relationship. They recognize that their credibility and ability to influence the organization depends on the work force's choice to follow. They operate with an understanding that leadership is a results-driven process and that a key function of leadership is to continuously challenge the organization to higher and higher levels of performance.
- **Vision** — High performance organizations are characterized by members who share a commitment to a vision of the organization's future.

Sun Transport, Inc., operates a fleet of petroleum tanker vessels.



Personnel secure pipe fittings on Sun's new inter-refinery pipeline system.



Sun's Point Breeze refinery in Philadelphia, Pennsylvania, stretches along the riverfront.

Compelling visions are clear, challenging, and related to the needs of the organization's members and customers.

- **Strategy** — High performance organizations operate on a balance of intended and emerging strategies. They are innovative and not rigid, adaptive and not reactive. High performance organizations maintain a constant openness to the world at large and make the strategic and operational changes needed to achieve vitality, prosperity and excellence.
- **Culture** — High performance organizations are organized around values, customer requirements and performance expectations. Decisions are value-based, and performance is value-driven. The organization's "culture" is the glue that holds things together. Structure is a useful mechanism to provide order but is not the central determinant of decisions or performance.
- **Teamwork** — High performance organizations get work done through teams of people who are responsible for whole processes, not just specialized functions. In high performance organizations, active teams take the form of work teams that serve as the basis for how most of the work in the organization is conducted and also project teams brought together for a specific purpose and specific period of time.
- **Work Processes** — High performance organizations are organized by processes needed to deliver results to customers. Teams of people who span functions have shared responsibility for performance and for continuous improvement to consistently meet customer needs.
- **Learning** — High performance organizations accept change as a business reality. They are committed to individual, team and organizational learning to maintain strategic flexibility and organizational adaptability. Learning throughout the organization is based on learning philosophy and is supported by processes for leadership development, team development and job-related skill development.
- **Technology** — High performance organizations are noted for the appropriate use of technology. Technology supports work processes designed to meet customer requirements, gives organizational members the access to timely and accurate information, and supports working relationships across time and location.
- **Results** — High performance organizations deliver the results. They are able to meet customer expectations, achieve company goals, and provide a satisfying work experience for organization's members.

Sun's high performance criteria have broad applications in the U.S. Army. Coupled with quality improvement tools, these criteria help the organization adapt and succeed in an ever-changing environment. Total Army Quality (TAQ) is the U.S. Army's answer to meet the significant challenges of our dynamic and unpredictable world.

Like Sun, the Army has always realized the importance of maintaining a competitive advantage to succeed and has also identified the need for standardizing its continuous improvement training programs and publications. This initiative for continuous improvement will further strengthen the Army's organizational culture and standardize the tools to maintain a quality Army. TAQ has application in every Army organization or activity. Where there are people and work processes, continuous improvement opportunities always exist.

Into the 21st Century

The TWI program at Sun Company, Inc., since 1975 has produced a long lineage of Quartermaster petroleum officers who share a commonality: all had the unique opportunity to train and work with the professionals in the petroleum industry. The Army's TWI program at Sun provides an extremely valuable "link" between the U.S. Army and the petroleum industry. In essence, the TWI program serves as an Army quality improvement tool. TWI promotes the sharing of managerial and technological innovations critical to continuous improvement, and TWI further ensures the Army's adaptability to change. The U.S. Army and Sun Company, Inc. possess a commitment to quality that will ensure continued success, while advancing into the 21st century.

CPT Vince A. Morikawa has a bachelor of arts degree from the University of Hawaii. He is a graduate of the Combined Arms and Services Staff School, Petroleum Officer Course, Quartermaster Officer Basic and Advanced Courses, and Airborne School. His assignments include Company Commander, 505th Quartermaster Battalion (Petroleum Pipeline/Terminal Operating), Okinawa, Japan; Aide-de-Camp, U.S. Army Japan/IX Corps, Camp Zama, Japan; Battalion S4, 29th Signal Battalion, Fort Lewis, Washington; and Company Executive Officer and Platoon Leader, 80th Ordnance Battalion, Fort Lewis, Washington.

Training With Industry: SuperValu Inc.

CPT James A. Blanco

During my Training With Industry (TWI) tour, I worked with SuperValu Inc., a food distributor and food retailer supplying both the private sector and the military commissary system, with headquarters in Minneapolis, MN. TWI proved a rewarding experience, both personally and professionally. This training opportunity provided me an entirely new outlook on the differences between the U.S. Army and the private sector.

Although the differences are quite obvious, the logistics mission is the same: get the right product, at the right time, to the right place. SuperValu's complex logistics system served as a training ground to expand my previous experience in the Quartermaster Corps. In addition to superb training in warehouse operations and transportation, I completed various projects to reinforce training objectives. My one year of training consisted of these five phases:

Phase I: Home Office Orientation
Phase II: Retail Store Training
Phase III: Distribution Management Training
Phase IV: Pittsburgh (PA) Division
Phase V: Tacoma (WA) Division

Phase I: Home Office Orientation. SuperValu's TWI coordinator and SuperValu's director of military sales both met with me before an in-depth tour of the home office and a briefing from key department representatives. I learned that SuperValu supplies about 4,600 supermarkets in 48 states, most independently owned and operated. Also, SuperValu, a major force in food retailing, operates 296 supermarkets and ranks as the 12th largest food retailer in the nation.

The company's two lines of business are food distribution, accounting for 75 percent of sales, and food retailing, accounting for 25 percent of sales. In food distribution, SuperValu had $14.8 billion in sales last year within 6 marketing regions, 25 wholesale food divisions and 4 general merchandise divisions. SuperValu serviced about 84 million retail square feet from 24 million square feet of distribution space by traveling 109 million miles last year. In food retailing, SuperValu had $4.2 billion in corporate retail sales from the 296 corporate-owned stores in 31 states.

SuperValu, much like the Army, was restructuring to increase efficiency and reduce costs during my TWI tour. This major initiative, named "Advantage" by SuperValu came at the end of a year-long analysis of how the company does business and how to streamline operations.

"Advantage" by SuperValu started about four years ago after the food distribution industry formed a joint study. Wholesalers, retail chains, independent retail grocers and grocery manufacturers studied ways of improving industry efficiency to better serve the consumer.

Although the most efficient in the world, the U.S. food distribution industry has not kept pace with other industries that distribute product from manufacturer to retail store - particularly in the areas of efficiency and use of technology. The industry's study concluded that the grocery distribution system could eliminate $20 to $30 billion related to inefficient activities. The study's report created significant changes in how manufacturers disperse trade promotion dollars as well as how products get to retailers.

As a result of this industry study, SuperValu hired outside consultants and initiated "Advantage." This strategic plan has three major thrusts: build the delivery system at the least cost; develop and deploy market-driving capabilities for independent retailers; and strengthen and redefine customer, employee and vendor relations through a new pricing approach.

Under SuperValu's newly revamped distribution network, product volume and velocity as well as retailers' choices will determine the distribution path for a particular item or vendor. The company is building a unique logistics infrastructure based on state-of-the-art technology. The technology will use the most cost-effective path for products to flow, reduce excess handling of products and speed products to market.

With improved forecasting ability and extensive automation, the new SuperValu distribution system will move products more quickly through the company's traditional warehouse facilities, regionalize the distribution of slow-moving items, and lead to more direct buying from manufacturers. The new system also will pool manufacturers' products to achieve more truckload shipments. Expected benefits include lower purchase costs of merchandise, reduced handling expenses and lower freight costs.

The current logistics plan includes developing three regional or "upstream" facilities. The first of these is being built in Anniston, AL. This 220,000-square-foot distribution center will serve as part of

a regional facility for frequently replenished inventory. In part, this "upstream" depot will handle slow-moving products for five SuperValu distribution facilities. The "upstream" Anniston depot will be the company's first to use an inbound/outbound freight management system. Freight will be collected and grouped in order to lower costs.

The Anniston facility also will include mechanized systems such as conveyors and a sophisticated computerized picking system with the ability to select items for 10, 20 and even 30 stores at a time instead of one store at a time. The benefits include greater purchasing power as a result of regionalization and radically restructured product flows to shorten order lead times and help lower the delivery cost of goods to the retail shelf. The formerly slow-moving products will move faster when distributed on a regional basis. Inventory is expected to reduce by up to 50 percent. Also, the new logistics model will be less labor intensive and will maximize vertical facility space. The logistic concepts created by SuperValu's "Advantage" system can apply to the present Army supply system and should be explored for possible implementation.

Phase II: Retail Store Training. SuperValu gave me hands-on retail store training with my assignment to a store in Coon Rapids, MN. Before TWI, the extent of my retail store training was as a consumer. However, I found a very complex business operation with many moving parts. I worked in each of the store's departments, including grocery, dairy, bakery, customer service and produce. Also, I trained in retail store accounting, scheduling, interviewing and merchandising. The retail store was a great learning environment and possibly the most enjoyable portion of my training. As a result of my time at the retail store, I gained an appreciation for retail management and store employees.

Phase III: Distribution Management Training. SuperValu Inc., like the Army, spends a great amount of money, time and resources on training personnel. I completed a two-week course with warehouse supervisors from throughout SuperValu. The "melting pot" created by the diversity of my classmates made the course informative and, at times, entertaining. The course provided extensive training in warehouse and transportation operations from the corporate perspective. Additional training in retail operations included a tour of the different types of retail store formats. However, the primary focus of the course was management training. Blocks of instruction were taught in focused interviewing, facilitating meetings, problem solving, oral communication, and personal development. The information from this two-week class gave me a solid foundation for the rest of my TWI tour.

Phase IV: Pittsburgh Division. After my distribution management training, SuperValu assigned me to the Pittsburgh Division that was moving its warehouse operations from New Stanton, PA, to Belle Vernon, PA. Upon arrival, I took an extensive tour of both warehouse sites. Management's primary focus was to improve productivity of the employees who are the order selectors. To improve their work, SuperValu had each selector observed.

To understand this procedure, I will summarize the order selector's job description. After punching into the clock and performing eight minutes of stretching exercises, the order selector picks up a pallet jack and then goes to the scheduling office to pick up a work assignment from the "batch dispenser." A batch is a list of grocery items with item location, item description, cubic feet of product, and customer account number. The list is printed on individual, adhesive-backed labels. The list is generated in the best overall selection sequence for efficiency. The order selector then enters his employee number and batch number into the Productivity Measurement System, a computer terminal which displays the allotted time to select the order. After reviewing the batch, the order selector gets the required number of pallets to pick the order and then goes to the start point. Each order is selected using a "Z-pick" pattern. Upon completing the selection, the employee stretch-wraps each pallet and drives the pallet to an assigned door for loading.

To observe an order selector's productivity, the observer must follow the selector throughout the order selection process before giving an oral and written critique of employee performance. Performing such an observation gave me an in-depth perspective of how the warehouse operated. Also, observing individual productivity increased my awareness of other potential issues in the warehouse. One such issue was low accuracy on locating orders. At one point, the warehouse's location accuracy was 50 percent. This was a direct result of employee inexperience with the warehouse's location system called Telxon.

To eliminate this issue, I teamed up with the Pittsburgh Division's distribution analyst to develop a Telxon Quick Reference Sheet. We posted it on each forklift. We also provided blocks of instruction to all forklift drivers. The results were significant. Loca-

tion accuracy increased to 90 percent, and the customer service rate (demand satisfaction) increased from 84 percent to 98.8 percent.

Phase V: Tacoma Division. The Tacoma Division has the largest military sales department in SuperValu. My Tacoma assignment included a general orientation of the military resale system, data processing support systems, and the distributor's role in working with military vendors and the Defense Commissary Agency (DeCA). Incidentally, I met with the director of military sales, a former U.S. Army officer.

My first assignment was to review commissary receiving procedures. When a commissary receives products from SuperValu, the pieces are counted. If the number of cases does not match the invoice, a memorandum is generated to credit the commissary. Credits depend on the average case cost. Generally, the average case cost is $18.00. Because of an increased number of reported "shorts," I was tasked to review each commissary's receiving procedures to ensure compliance with DeCA and SuperValu guidelines. I visited six commissaries in Washington: Fort Lewis, McChord Air Force Base (AFB), Whidbey Island, Bremerton Naval Ship Yard, Sandpoint, and Bangor. My report resulted in better standardization and control of the commissary receiving function.

I participated in the DeCA-directed comparison of produce prices between SuperValu and the Defense Personnel Support Center. The project's objective was to determine the cost effectiveness of using distributors to supply produce. Personally, I gained an understanding of produce pricing and quality along with an orientation of SuperValu's produce operations.

Vendor Analysis

I performed an analysis of the Tacoma Division's meat vendors to review sales, service fees variation, and gross profit. This gave me a detailed level of review for military sales, operating costs and distributor margins.

I performed a study of the ordering pattern for Guam, Mt. Home AFB, and Hill AFB. The study provided an analytic view of ordering cycles and identified issues of ordering frequency and the size of promotional inventory.

My last project in SuperValu's military sales department was to develop procedures for the Tacoma Division's Deli/Bakery Cross Dock Program. DeCA had recently contracted the commissary delicatessen and bakery operations. Since the program was new, I was assigned to develop receiving, billing and shipping procedures. I also visited each commissary to troubleshoot problems and to clarify procedures. These procedures ensured uniformity among the commissaries and resulted in a profitable program for SuperValu.

Last April, I was assigned to the grocery warehouse for extended training in warehouse and transportation operations. I toured the warehouse with its complex logistics mission. To ship a load, products had to be consolidated from a minimum of four different warehouses. For example, the frozen warehouse was located about 16 miles away. I gained admiration for the supervisors' and warehouse employees' ability to synchronize and execute this mission routinely with few mistakes.

Warehouse Assignment

My first assignment in the grocery warehouse was to oversee preparation for the upcoming American Sanitation Institute Inspection. In addition to developing new warehouse sanitation techniques, I wrote a Warehouse Sanitation Handbook. This handbook served to standardize and streamline sanitation practices.

My final project was to develop procedures for all warehouse operations. At the direction of the warehouse manager, I wrote job descriptions, training instructions, and procedures for order selecting, forklifting, hauling and loading operations. This final project gave me the me the opportunity to explore each warehouse function and a unique chance to interact with warehouse personnel.

In conclusion, I consider my tour with SuperValu Inc. a huge success. The demanding requirements of the SuperValu TWI Program significantly increased my personal and professional competency. The invaluable experience in TWI will pay dividends in my future assignments. Also, as many of the support functions of today's Armed Forces go to private industry, our understanding of corporate America will be increasingly vital to ensure a smooth transition.

CPT James A. Blanco is a Class I Project Officer for the Army Center of Excellence, Subsistence at the U.S. Army Quartermaster Center and School, Fort Lee, Virginia. He has a bachelor of science degree in business administration from the University of New Mexico, Albuquerque. He is a graduate of Airborne School, the Quartermaster Officer Basic and Advanced Courses, Subsistence Officer Course and the Food Service Management Course. His previous assignments include Officer in Charge and Executive Officer, Mission Supply Support Activity, Field Station Berlin, Germany; Class I, Class II and Class IV Officer, Corps Materiel Management Center (CMMC), Fort Lewis, WA; and Commander, Headquarters Company, CMMC, Fort Lewis.

Keeping the Thread in the Needle

CPT M.C. Stephen Cherry IV

Editor's Note: CPT Cherry was the last Quartermaster officer at Hertling Industries, Inc., in the Army's Training With Industry program. The business shut its doors in July 1995, although the 70-year-old company's name continues under manufacturing by Hertz of America, Inc.

Ever since the Army drawdown started after the Persian Gulf War in the early 1990s, we have experienced the impacts on our organizations of downsizing, resignations of our friends who no longer wanted to stay in the Army, those who were forced to leave and retirements of those who decided to call it quits. Through my Training With Industry (TWI) program at Hertling Industries, Inc. in Brooklyn, NY, I have experienced firsthand the effects that our current economy and our retail buying trends have had on a civilian manufacturing industry. This enables me to compare my experiences with the military drawdown to the downsizing in the civilian sector.

In Business Since 1925

Hertling Industries, a tailored clothing manufacturer, had been in business since 1925. Hertling manufactured men's and women's suits, sportcoats, slacks, topcoats and vests for retailers such as Nordstrom's, Brooks Brothers, Polo and Neiman Marcus, just to name a few. The majority of garments that Hertling manufactured were 100 percent wool. The company did manufacture a small number of silk, silk/linen blend and cashmere garments. Initially, Hertling did only contract work, manufacturing garments with all the fabrics and trimmings provided by the retailer. This meant that all Hertling had to do was sew garments together at a predetermined cost and meet the retailer's specifications for a particular model.

Hertling became a full-blown manufacturer in 1980. A manufacturer merchandises the products/models to sell to the retailer. A manufacturer purchases the fabrics or piece goods and the trimmings and develops the models that the company thinks the retailer will buy.

From 1983 until the late 1980s, Hertling was one of the premier tailored garment manufacturers in the nation. Hertling had over 550 employees with two separate coat factories and a separate women's skirt and slack shop to try to meet the demand for orders from retailers. Hertling's production during this period was over 3,000 coats and more than 2,500 pairs of slacks per week.

Since that time, competition from manufacturers abroad with their cheaper labor rates overseas and also the current consumer trends at home toward more casual wear and a less-tailored look have influenced a declining production of men's suits. According to industry statistics, the average American male is buying only one new suit every seven or so years. Most men are simply not buying suits at all. This had obviously hurt production of men's suits at Hertling Industries, Inc. Annual sales 10 years ago

The author inspected basting operations on a suit coat at a tailored clothing manufacturer in Brooklyn, New York.

were around $26 million. Sales forecasts predicted around $10 million in sales for 1995. The number of Hertling employees had decreased from a high of more than 550 to a work force of just under 200.

These factors forced Hertling, much like today's Army, to combine positions in management and the work force by only allowing multifunctional employees to remain. Declining sales also forced Hertling to reduce its work schedule to only four days per week to cut costs.

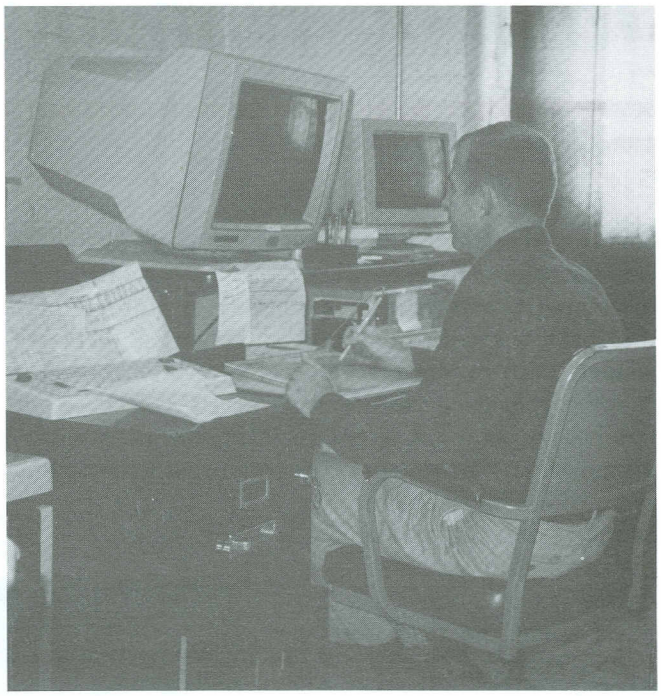
Competition within the tailored garment manufacturing industry, much like today's Army, is too severe to allow for excess. Even the large manufacturers of suits are feeling the heat.

The Army's TWI program provided me a unique opportunity to learn the basics of the clothing and textile industry. It has also enabled me to experience the day-to-day operations in a civilian manufacturing industry and the different problems of today's manufacturers in our marketplace and economy. These problems, although in a civilian setting, mirror many of the same problems we are experiencing as soldiers. Collectively, we have to learn how to do as much or more with less. Individually, through education and training, we have to strive to be multifunctional to stay competitive.

High-Performance Organizations

My TWI experience also reinforced some of the Army's characteristics of high-performing organizations: good organizations communicate on all levels, and personnel are always the most important resource. The TWI experience at Hertling will serve me well as I transition to my follow-on assignment as the Chief of Cadet Services Branch at the United States Military Academy at West Point, NY. I will be in charge of a civilian work force with the mission of operating a uniform manufacturing facility and providing equipment, academic materials and personal services for the U. S. Corps of Cadets.

CPT M.C. Stephen Cherry IV has a bachelor of science degree from East Carolina University. He is a graduate of the Combined Arms and Services Staff School, Quartermaster Officer Advanced Course, Infantry Officer Basic Course, and the U.S. Army Officer Candidate School. His assignments include Assistant Support Operations Officer, Headquarters and Company A Commander, and Battalion S4, 325th Forward Support Battalion, 25th Infantry Division (Light), Schofield Barracks, Hawaii; Battalion S1, Company Executive Officer, Assistant S3 and Rifle Platoon Leader, 3/6 Infantry Battalion, 5th Infantry Division (Mechanized), Fort Polk, Louisiana.



The author operated a computerized pattern maker (top photograph): a step that preceded cutting the wool fabric by hand for a special order (bottom photograph).

Marriott Management Services — Training With Industry

CPT Debra L. Thomas

The Marriott Corp. is an industry leader in food service. Marriott Management Services (MMS), a separate division from Marriott's hotel and turnpike divisions, provides total food service management and production to hospitals, universities, colleges, schools with kindergarten through grade 12, and to other corporate accounts such as IBM, Kodak and federal government agencies. MMS literally covers all aspects of the market from buying and distributing national and in-house brands to developing recipes and managing the menus.

I spent my first few weeks Training With Industry (TWI) with the MMS department directors to gain an overview and to develop a training plan. My current follow-on assignment is Chief of the United States Military Academy's Cadet Mess at West Point, NY. Very familiar with the Cadet Mess, the Marriott staff had visited once with another TWI participant. I had visited the Cadet Mess once before arriving at Marriott to see the field feeding operations and to discuss areas of emphasis for my TWI assignment.

The author (left) and test kitchen executives prepared pork dishes for a recipe contest at the Marriott Corp.

My formal TWI training began with basic cooking methods and quality assurance instruction at the Culinary Institute of America, Hyde Park, NY. This is a management-level course for leaders to learn by doing. This was fun for me because cooking and nutrition were a part of my college studies. Each day we would study cooking techniques, with emphasis on French terms and methods, and also nutrition and quality control for large food production. The laboratory portion of each day focused on demonstrating the methods studied earlier. Each small group used different techniques. We sampled and critiqued the products produced in the laboratory that afternoon. Part of the preparation involved creating an individual and large display plate. Plate presentation or how to present the product plays an important part of customer satisfaction. Meal presentation at the Cadet Mess is limited because the food is placed in portions of 10 on full sheet pans and held in hot carts. However, I did observe the importance of mixing colors and textures.

The final examination for graduation at the Culinary Institute of America was to produce a meal using a prescribed list of ingredients. This was more work than I originally imagined. Researching recipes with all the ingredients was more an exercise in how to successfully use all leftovers in a nutritionally correct meal.

My favorite laboratory was making fresh pasta. Of course, we used the manual method of cranking the dough through the pasta machine. It took all three of my group to rotate, crank and stretch the over-five-foot band of dough. I enjoyed this because it was like Army physical training, but my classmates were not so easily amused. Meanwhile, a tourist group laughed while watching us getting tangled in the dough. I think that I will continue buying the dried pasta in the future.

My Culinary Institute of America training led to working in the Marriott test kitchen with the head executive chef and the test kitchen manager. First, I had to "pass the test" in cooking so that I could be a part of this professional team and the Marriott Chef's Guild. I learned how to break out a recipe like a chemistry experiment. Developing a recipe into large quantities for food production is a tedious process that must be exact. All measurements are precise in order to make an accurate nutritional and costing analysis. Portion size and weight are key in the cost analysis. Plus, we were always looking for recipes that fit in the "wellness" category of low fat, low salt and nutritional balance. Writing the instructions over

and over was like being at the Combined Arms and Services Staff School again and getting "redos." But now, when I look at recipes, I can imagine whether they are suitable for large quantities.

I began with selecting and testing recipes for the Marriott Monthly Promotion Series. The marketing department sends a packet to accounts monthly with new theme recipes and promotions to use for variety and client interest. I believe this is what separates Marriott from other food service providers. The packet includes giveaways, background music, decorations and point-of-sale ideas to order. I helped research new recipes for these promotions. I also became the project officer for vegetarian recipes. Several of my vegetarian and international recipes were actually published. I continued to work on the Marriott Monthly Promotion Series throughout my tour, between other assignments.

It was like setting off a smoke grenade in a kitchen.

The real test of my newly acquired chef skills came with the first recipe contest sponsored by the National Pork Council. This was much like getting ready for a command inspection in the motor pool. Everything has to be perfect and ready at the exact same time. I was very excited about working with all the guest chefs, but I was also skeptical about producing these recipes for judging that were created by executive chefs from all over. I can relate this experience with how the Cadet Mess has to prepare all 4,400 meals for consumption at one time, three times a day. Both take a solid timeline.

The display plate also plays a part in the Marriott judging. It not only has to taste new and exciting, but the display plate also has to be appealing to the eye. I worked several contests and am proud to announce that at least one of my products in each contest placed in the top two. The rules of engagement for a recipe contest are different from regular recipe testing. Contest entrees cannot be "reworked" or made to work if the recipe does not taste right. I only had one recipe fail, and that was for green chili pork stew. I made it twice, and twice the stew looked like grey mush. I do not think the cadets at West Point will appreciate grey chili to go with their grey uniforms, so I will not try this recipe at my new job. Another lesson for me was to add the liquid to dry ingredients at the appropriate time. During my first experience with a 50-gallon mixer to test cake batter, I turned on the mixer before I added the liquid. I guess it was like setting off a smoke grenade in a kitchen. This was also the same day we were getting ready to film a cooking demonstration. My advice: always follow the instructions in the correct order.

Meeting Marriott's many expert chefs was like being an apprentice. I especially enjoyed working at the French Embassy in Washington, DC - even though I could not understand most of the conversation. The French and Americans chop onions universally the same. It was also interesting to talk to the French military personnel at the embassy about my training with Marriott. They were so amazed to see a U.S. Army captain filling pastries! One large catering event had an extensive gourmet menu. The only cuisine I would not taste was the veal brains that were considered a delicacy. Even I have my limits.

Understanding the principles of cooking and how to make food look appealing are important to anyone in the food service business. My philosophy has always been to learn the process myself by doing it. Then I can manage the process and help improve it. I will encourage testing of new recipes with my new Cadet Mess staff by participating in the development. The cadets are like any customers: they want to see something new occasionally or at least improvement of existing products.

The next phase of training was planning and maintaining menus. This included food specifications, sanitation and costing. I worked on the Corporate Services Menu Task Force to write a six-month menu. I compare this experience to writing a six-month, detailed training calendar as a commander. There were so much criteria to consider when putting together a long-term menu. Nothing could repeat itself, and the menu had to be nutritionally balanced. All new recipes had to be included. We had to always consider leftovers that could be added to the next day's menu, just to name a few factors. This menu guide was published and looked like a three-inch-thick standing operating procedure. All the nutritional data, costs, new recipes and complete production instructions were included.

With the six-month menu, managers can choose from items each day based on their clients and oper-

ating budget. This is like Army commanders considering the tactical situation for their units and adjusting the type of rations accordingly. The challenge with the Marriott menu plan is standardization. What is popular on the East Coast may not work in California, for example, but the menu plan has to consider all geographical trends. The Cadet Mess holds menu boards, and this Marriott training will help me with reviewing West Point menus.

As in the Army, food safety is a high priority in the food industry. Marriott is a leader in developing a Hazard Analysis of Critical Control Point (HACCP) Program. Although HACCP has not been accepted worldwide yet, Marriott believes every dollar saved in the prevention of foodborne illness is a dollar well spent. I took the National Restaurant Association's food safety course with the Host Marriott Division and was certified in food sanitation. Marriott has internal sanitation audits within the entire management structure and has area-based food sanitation offices to conduct random inspections. I conducted several unannounced food safety audits during my tour using Marriott's 21-Point Inspection checklist. I inspected hospitals and university cafeterias. I also assisted with a Quality Assurance Audit for the turnpike rest stops. Each type of unit had its own unique challenges.

Because of this training, I find myself carrying a thermometer everywhere.

Conducting food sanitation audits was a continuous responsibility during my entire tour. I plan to implement many of these checklists at my new job and set up similar training. The important note to remember is to do it right the first time.

Because of all this training, I find myself carrying my thermometer everywhere and questioning the waiters on how food is prepared. I also check for the use of plastic gloves, especially in fast food chains. This habit can be a disadvantage when I eat out because I have a new appreciation for sanitation.

Midway through my TWI tour, it was time to actually work "in the field" with a Marriott unit. I worked at the American University, Washington, DC, for nearly two months. Marriott has an individual training program for managers to train and verify skills. This is like a combination of military qualification skills and common tasks training. I set up a schedule using a task book so that I worked in each of the unit's jobs and all shifts. One day I was a comptroller and paid vendors. For several weeks I cooked and set up buffets. I worked in catering, production management and quality assurance. American University uses the latest marketing strategies and food trends. I had to reflect back to my college and Reserve Officers' Training Corps days.

Although the food court concept worked well at American University, that food trend would probably never work at the Cadet Mess because of the cadets' strict time schedule. However, a new place in Eisenhower Hall at West Point is much like a food court for the cadets, and it is a big hit. (Normally, cadets have 30 minutes to eat, and the waiters have 6 of the 30 minutes to serve.) The "cluster" concept works best when meals run continuously all day or when there are restaurant-type hours. Small batch cooking works for "just in time" food preparation.

The help-yourself buffet arrangement for all food stations cut down on cafeteria servers at American University. It would appear that not controlling portion size would increase costs, but the savings are huge because the students pay a flat rate for meals. Many options to a meal plan encourage a high participation rate. Also, American University students can have "plus dollars" on their meal card to charge food and convenience items at the other Marriott retail operations. Those "plus dollars" come in handy for early morning coffee breaks at a gourmet retailer's shop. The average college customer, however, is very different from the Cadet Mess customer. The collegiate "grunge look," for instance will never replace tailored, dress grey wool uniforms and military haircuts at West Point.

Working in an actual account was an invaluable experience. It gave me a new insight into the latest food service trends in higher education. During my field duty with Marriott, I was invited to be a part of a Customer Driven Process (CDP). The Education Services Division of MMS selects accounts each year that need revitalizing. I participated in a CDP at the University of Reno, NV. I conducted client interviews of selected academic deans and faculty, focus groups of students, employees and faculty, and helped with

the various internal audits of administrative functions. Each night we summarized the Marriott study and looked for common problems, perceptions and recommendations. At the end of the week, we came up with a 30-day action plan for the University of Reno. I plan to conduct my own version of a CDP at my new job.

Food Service Alternatives

As I arrived at West Point, the Cadet Mess was undergoing a total renovation of the kitchen and other supporting areas. We will be adding a cook/chill operation. I was fortunate to work with Marriott on two occasions with cook/chill. This process is a bulk manufacturing of meals in heavy-duty pouches that are chilled rapidly and stored in a food bank. The process saves on labor at the user end. The Kodak cook/chill operation in Rochester, NY, serves over 30 cafeterias run by Marriott at the Kodak plant. I also worked on the task force for the Tennessee Project, where Marriott will manage one the largest cook/chill facilities to feed prisons and other government agencies on an area basis. This setup is much like a brigade support area in the Army. The food bank stores all the menus in a four-week cycle, and the cafeterias can order whatever they want to serve. The Cadet Mess will use cook/chill for soups, bases and sauces.

Total Quality Management

I was not surprised that Marriott uses Total Quality Management (TQM) as a part of everyday business. However, I did learn how to expand upon TQM. Marriott's Introduction to Management Course gave me the foundation of principles that I use frequently. I often use the concept of "win/win," whereby I look at how everyone involved gains something.

The TWI tour of duty ended with an introduction to how Marriott began. I spent a week with the general manager of the Hot Shoppes restaurants. A Marriott executive showed me the last of the free-standing restaurants and cafeterias. One restaurant was state-of-the-art in the 1950s with curb service and a drive-in design. The food is famous for its "comfort" appeal. The Hot Shoppes evolved from the original A&W Rootbeer stands run by J.W. Marriott. Most of today's customers have eaten at the Hot Shoppes since they began. Senior citizen specials draw long lines when groups come and actually reserve tables. I'll be feeding the Long Grey Line at West Point, and I also have experience from feeding another long grey line at the Hot Shoppes!

CPT Debra L. Thomas became Chief of the Cadet Mess at the United States Army Military Academy at West Point, New York, after her Training With Industry assignment with Marriott Corp. She has a bachelor of science degree from Indiana University of Pennsylvania. She is a graduate of the Quartermaster Basic and Advanced Courses and the Combined Arms Staff College. Her military assignments include Petroleum and Water, Supply Support Activity, Mortuary Affairs Platoon Leader and Operations Officer, 40th Supply and Service Company, 124th Transportation Battalion, and S4, 84th Engineer Battalion in the 45th Support Group, Hawaii; Proponency Analyst, Office of the Quartermaster General, Fort Lee, Virginia; Commander, 16th Field Services Company, 240th Quartermaster Battalion, Fort Lee; and Training, Counseling and Assessment Officer for the Officer Basic Course, Fort Lee.

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.

Quartermaster Regimental Hall of Fame

1996 Nomination Procedures

Nominations are being accepted for the 1996 Hall of Fame (HOF), Distinguished Members of the Regiment (DMOR) and Distinguished Units of the Regiment (DUOR). All retired personnel (former Active and Reserve Component Quartermasters) and civilians who have made significant contributions to the Quartermaster Corps are eligible for the HOF five years after retirement, discharge or death. For consideration by the 1996 selection board, nominations must be received by the HOF project officer at the U.S. Army Quartermaster Center and School, Fort Lee, VA, by 1 May 1996. The Quartermaster General will determine and convene the selection board in June 1996. The induction ceremony will be held with the Quartermaster Corps Regimental celebrations in September 1996.

Nominations for the HOF and DMOR will consist of the following:

- The nominee's biographical data (one to two pages).
- A narrative description of the nominee's significant contributions to the Quartermaster Corps.
- The nominee's photograph (preferably an 8x10-inch color photograph).

Supplemental information may be included, such as letters of support from individuals who know of the nominee's accomplishments or citations received for those accomplishments. Nominations should be concise and contain the nominee's specific contributions to the Quartermaster Corps.

Nominations for the DUOR should show service to the Quartermaster Corps over a period of 10 years or 2 wars. Units with one or more redesignations during their periods of service may be nominated under their current (or last, if deactivated) unit designation. A unit's official lineage should (but is not required to) show participation in a minimum of five campaigns. A unit's official honors should (but is not required to) show a minimum of one unit decoration.

Send completed nomination packets to US ARMY QUARTERMASTER CENTER AND SCHOOL, ATSM OQMG R ATTN REGIMENTAL ADJUTANT, 1201 22D STREET, FORT LEE, VA 23801-1601.

Major General Hugh Mackintosh was born October 7, 1907, in Boston, MA, and died May 8, 1974. He was commissioned as a second lieutenant in the Infantry following his graduation from the United States Military Academy at West Point, NY, in 1929. His military education includes the Industrial College of the Armed Forces and the Command General and Staff College. General Mackintosh served with the Infantry during the first 10 years of service and was detailed to the Quartermaster Corps in 1939.

General Mackintosh made significant contributions to the United States Army and the Quartermaster Corps during three wars. In World War II, he commanded the 471st Quartermaster Group in the European Theater of Operations, where he provided Quartermaster support from Normandy through Central Europe to the largest American army ever assembled, the United States First Army. In the Korean conflict, General Mackintosh was Quartermaster for the Eighth Army, Commander of the Tokyo Quartermaster Depot, and acting Quartermaster for the Far East Command. During the war in Vietnam from 1962 to 1966, he was Commanding General of the U.S. Army Quartermaster Training Command and Commandant of the U.S. Army Quartermaster School, Fort Lee, VA. General Mackintosh also served as Commander of

MG Hugh Mackintosh

1995 Hall of Fame Honorees

The Quartermaster Regimental Hall of Fame inducted eight new members in September 1995 to recognize retired military and civilians who have made lasting, significant contributions to the Quartermaster Corps. This year's inductees are MG Hugh Mackintosh, MG Harry L. Dukes Jr., MG William K. Hunzeker, MG James S. Welch, MG Duane H. Stubbs, COL John F. Dennington, CW4 Daryl W. Giddings and James A. Burdette.

The photographs of Hall of Fame members are placed in the Quartermaster Regimental Hall of Honor in Mifflin Hall at the U.S. Army Quartermaster Center and School, Fort Lee, VA. Since the first four inductees in 1986, the Hall of Fame has grown to 49 members.

the Defense Subsistence Supply Center and Commanding General of the Columbus General Depot.

General Mackintosh's awards and decorations include the Distinguished Service Medal, Legion of Merit (with two Oak Leaf Clusters), Croix de Guerre with Silver Star, Cross of the Brigadiers of the Royal Battalion of King George I, Honorary Commander of the Most Excellent Order of the British Empire, and Ulchi Distinguished Military Service Medal with Silver Star.

Major General Harry L. Dukes Jr. was born October 29, 1928, in Newberry, SC, and died May 21, 1987. After graduating from Clemson University with a bachelor of science degree in textiles, General Dukes was commissioned a second lieutenant. He also graduated from the Georgia Institute of Technology with a master's degree in textile engineering.

General Dukes' last command before his retirement in 1984 was Quartermaster General and Commander of Fort Lee, VA. His other commands include Army and Air Force Exchange Service (AFFES)-Europe, Munich, Germany; Deputy Chief of Staff for Logistics, U.S. Army Training and Doctrine Command, Fort Monroe, VA; U.S. Army Quartermaster School Brigade, Fort Lee; Sacramento Army Depot, Sacramento, CA; Umatilla Army Depot, Hermiston, OR; and 96th Supply and Service Battalion, Vietnam. Among General Dukes' numerous contributions to the Quartermaster Corps were his development of a Family Advocacy Program and a Family Center that became the model for the entire Army during the "Year of the Family." General Dukes was also responsible for upgrading the Quartermaster Officer Basic Course to include leadership training for advanced individual training companies of the Quartermaster Brigade. While commanding AAFES-Europe, he was responsible for increasing sales by 20 percent at 4,500 retail outlets that generated more funds for morale, welfare and recreation programs throughout the joint services.

General Dukes' awards and decorations include the Distinguished Service Medal, the Legion of Merit (with one Oak Leaf Cluster), the Meritorious Service Medal (with one Oak Leaf Cluster), and the Army Commendation Medal (with one Oak Leaf Cluster)

MG Harry L. Dukes Jr.

Major General William K. Hunzeker was born July 10, 1927, in Pittsburgh, PA. He was enlisted in the regular Army in 1946 and was discharged in 1947. He was commissioned a Quartermaster officer after graduating from the University of Pittsburgh with a bachelor of arts degree. He also holds a master of education degree from Indiana University of Pennsylvania. General Hunzeker's military schooling includes the Command and General Staff College and the Industrial College of the Armed Forces.

General Hunzeker's last assignment before retirement was Deputy Chief of Staff for Logistics, United States Army, Europe. General Hunzeker's other commands include the U.S. Army Logistics Center, Fort Lee, VA; the U.S. Army Quartermaster Center and School, Fort Lee; the Army and Air Force

Exchange Service (AAFES), United States Army, Europe; Sharpe Army Depot, Lathrop, CA; 43d Support Group, U.S. Army Forces Command, Fort Carson, CO; 34th Supply and Service Battalion, An Khe Sub Area, Vietnam; and Battery D, 514th AAA Gun Battalion (90mm), Boston, MA. General Hunzeker's significant contributions to the Quartermaster Corps are numerous. As an assistant professor of military science at Indiana State Teacher's College, he played a key role in commissioning more than 200 Quartermaster officers. Many of these officers had successful careers, with one rising to the rank of lieutenant general. As the Commander of AAFES-Europe, General Hunzeker initiated many programs to improve the availability of goods and services for military personnel and dependents and also boosted profits from $18 million to $50 million. In his assignments as the Commander, Quartermaster Center and School, and later the Army Logistics Center, he used his education, experience and innovative thinking to improve the quality of logistics soldiers and systems and the support of the U.S. Army.

General Hunzeker's awards and decorations include the Distinguished Service Medal, the Legion of Merit, the Meritorious Service Medal (with two Oak Leaf Clusters), and the Army Commendation Medal (with one Oak Leaf Cluster).

MG William K. Hunzeker

Major General Duane H. Stubbs was born July 3, 1929, in Bismarck, ND. He was commissioned a Quartermaster officer with a two-year combat arms detail in the Artillery following his graduation from the University of California at Los Angeles with a bachelor of arts degree in history. General Stubbs also holds a master of business administration degree from American University. His military education includes the Command and General Staff College and the Industrial College of the Armed Forces.

General Stubbs' last assignment before his retirement was Special Assistant to the Deputy Chief of Staff for Logistics (DCSLOG), Office of the Deputy Chief of Staff for Logistics (ODCSLOG), Washington D.C. General Stubbs' other key commands include the U.S. Army and Air Force Exchange Service, Dallas, TX; Division Support Command, 4th Infantry Division (Mechanized), Fort Carson, CO; Chief, Logistics Division, and Chief, Quartermaster Branch, Officer Personnel Directorate, U.S. Army Military Personnel Center, Alexandria, VA; Chief, Asset Data Management Branch, Supply Division, Supply and Maintenance Directorate, ODCSLOG, Washington, D.C.; 7th Support Battalion, 199th Infantry Brigade, Vietnam; and 8th Supply and Transport Battalion, 8th Infantry Division, United States Army, Europe. General Stubbs created systems relying heavily on computers and other electronic equipment that improved control of Army assets, both stationary and intransit. His programs focused on hand tools, accountability of firearms, and visibility of secondary items. These programs began saving the Army millions of dollars upon implementation. While at the Military Personnel Center, General Stubbs furthered the careers of hundreds of Quartermaster officers.

General Stubbs' awards and decorations include the Distinguished Service Medal, the Legion of Merit (with one Oak Leak Cluster), the Meritorious Service Medal, the Bronze Star Medal (with one Oak Leaf Cluster), the Army Commendation Medal (with two Oak Leaf Clusters, and the Purple Heart.

MG Duane H. Stubbs

Major General James S. Welch was born in Hermosa Beach, CA, April 19, 1925, and died September 13, 1993. After serving in World War II with the Office of Strategic Services, General Welch was commissioned a Quartermaster officer following his graduation from Stanford University with a bachelor of arts degree in economics and accounting. He also received a master of business administration degree from Harvard University. His military education includes the Command and General Staff College, Armed Forces Staff College and Army War College.

General Welch's last assignment before his retirement was Director of Materiel Management, Headquarters, U.S. Army Materiel Command, Alexandria, VA. His other major command positions include the U.S. Army Depot System Command, Chambersburg, PA; Chief, Supply and Maintenance Division, Office of the Deputy Chief of Staff for Logistics, Headquarters, United States Army, Europe (USAREUR); Kaiserslautern Army Depot Complex, USAREUR; Nahbollenbach Army Depot, USAREUR; Chief of Staff, U.S. Army Materiel Command, USAREUR; Logistics Data Service Center, Vietnam; and the 95th Supply and Services Battalion, Fuerth, Germany. General Welch was a major contributor to the following programs with a lasting effect on the Quartermaster Corps and the Army: Total Package Fielding, Stock Funding of Depot-Level Reparables, Battle Damage Assessment and Repair, and National Inventory Accountability. General Welch's most important contributions were in the area of depot operations where his newly introduced management tools allowed accurate measuring of efficiency and effectiveness for all Army depots.

General Welch's awards and decorations include the Distinguished Service Medal, the Legion of Merit (with one Oak Leaf Cluster), the Bronze Star Medal, the Army Commendation Medal, and the Air Force Commendation Medal.

MG James S. Welch

Colonel John F. Dennington was born April 19, 1921, in Texarkana, TX. He received a bachelor of science degree from Texas A&M University. Colonel Dennington also has a master of business administration degree from Syracuse University and attended the Advanced Management Program at Harvard University. His military education includes the Command and General Staff College and the Industrial College of the Armed Forces. He was commissioned a second lieutenant in the Quartermaster Corps. Ordered to Europe in January 1944 from the Atlanta General Depot, he served in the Supply Division, Office of the Theater Quartermaster, before volunteering for duty as Quartermaster Supply Officer, 101st Airborne Division. He participated in four campaigns and was cited for his contributions in Holland and Bastogne. He returned home in early 1946 and was released from active duty as a captain.

Recalled to active duty in August 1948, Colonel Dennington served in many duty positions during the next 30 years, including Commander of the 561st Quartermaster Petroleum Supply Company, 501st Supply and Transport Battalion, 45th General Support Group (Vietnam), Defense Industrial Plant Equipment Center, and Lexington-Blue Grass Army Depot. His staff assignments included Deputy Chief of Staff for Logistics (DCSLOG), Fifth Army. In Europe, he developed the logistics portions of war plans. He played a key role in developing early plans for the removal of materials from Vietnam. He was DCSLOG's initial representative to develop the Selected Item Management Systems, vital for accurate asset visibility. As Quartermaster Branch Chief of the Officer Personnel Directorate, Colonel Dennington improved selection rates for promotions, commands and schools for Quartermaster officers.

COL John F. Dennington

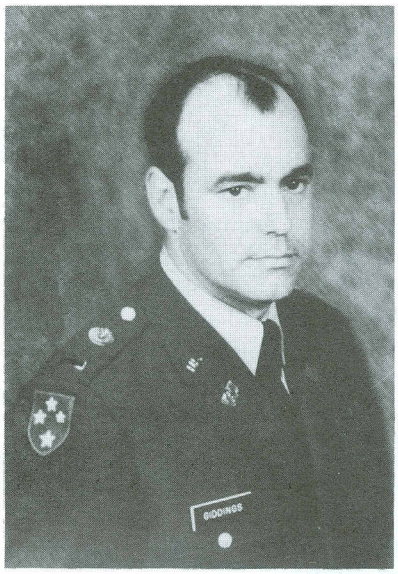
As Commander, Lexington-Blue Grass Army Depot, he set up a special organization and ensured that personnel affected by a major staff reduction from 4,600 to 1,800 civilian employees would be employed elsewhere.

Colonel Dennington's awards and decorations include the Legion of Merit (with three Oak Leaf Clusters), the Bronze Star Medal (with two Oak Leaf Clusters), the Meritorious Service Medal, the Air Medal, the Army Commendation Medal (with two Oak Leaf Clusters), and the Joint Chiefs of Staff Identification Badge. He also has the Glider Badge and the Parachutist Badge.

CW4 Daryl W. Giddings served the Quartermaster Corps for over 26 years in food service. CW4 Giddings' major assignments include Director, Army Food Service School, Fort Jackson, SC; Quartermaster Warrant Officer Career Manager/Assignment Officer, Military Personnel Center, Alexandria, VA; and Director, Army Food Service School, Fort Jackson, SC. He was Food Advisor for the following units or agencies: Army Security Agency Europe, Augsburg, Germany; 3d Advanced Individual Training Brigade, Fort Jackson, SC; 11th Infantry Brigade, Vietnam; 1st Basic Combat Training Brigade, Fort Gordon, GA; and 35th Engineer Group, 18th Engineer Brigade, Vietnam.

CW4 Giddings was responsible for implementing ethnic specialty feeding, weight control diet lines, specialty houses, and multiple entree meals - all now standard in dining facilities worldwide. CW4 Giddings was a major contributor to the development of the Army Field Feeding System. He was responsible for the establishment of the Warrant Officer Advanced Course. He was a major force in restructuring the accession criteria for new enlistees into the food service military occupational specialty that improved the caliber of soldiers providing food service to the Army.

CW4 Giddings' awards and commendations include the Legion of Merit (with one Oak Leaf Cluster), the Bronze Star Medal (with two Oak Leaf Clusters), the Meritorious Service Medal (with two Oak Leaf Clusters), the Air Medal (with one Oak Leaf Cluster), the Army Commendation Medal (with two Oak Leaf Clusters), and the Army Achievement Medal.



CW4 Daryl W. Giddings

James A. Burdette was born May 15, 1924, in Iva, SC. His career spanned more than 45 years in both the military and civil service sectors. With a reputation as an innovator, doer, mentor and teacher for countless Quartermaster and other logistics officers, Burdette was often referred to as a "logistics Moses."

His military career began in World War II. After basic training, he served as a parts clerk and supply sergeant in the Pacific Theater. After World War II, he continued in the supply field on assignment to the Army Chemical Center in Maryland. He deployed to Korea in 1950 and was appointed warrant officer in the chemical supply field while serving with the Pusan Chemical Depot. Later, he held specialized and general supply positions at various levels in the U.S. and Europe. In 1960, Burdette transferred to the Quartermaster Corps. He retired from active duty in 1964, but continued his work in logistics. His military decorations include the Army Commendation Medal (with two Oak Leaf Clusters).

His civil service career began with the Army Petroleum Center. He also served in the Supply and Maintenance Directorate, Army Materiel Command, and Headquarters, Department of the Army (HQDA), Office of the Deputy Chief of Staff for Logistics. He was a key player in the Army's first attempt to automate

James A. Burdette

the supply system at the division and nondivision levels. As a member of the HQDA Test, Planning and Evaluation Staff, he provided critical guidance in development of 82 divisional logistics concepts for automation that were tested and adopted. He was influential in developing data bases for intransit visibility of items in the supply pipeline and also the technique for routing Army cargo to a specific point for consolidation and containerization. He was the principal proponent for unitizing cargo for direct delivery to the ultimate customer, minimizing subsequent handling and pilfering. He was also instrumental in creating new supply concepts such as "bottoms up" reconciliation and direct requisitioning. His civil service awards include the Decoration for Meritorious Civilian Service, the Decoration for Exceptional Civilian Service and the Army General Staff Badge.

Hall of Fame Members

1986

BG Thomas S. Jesup
LTG Edmund B. Gregory
MG Robert M. Littlejohn
MG Montgomery C. Meigs

1987

BG Rufus Ingalls
MG Thomas Mifflin

1988

MG James B. Aleshire
LTG Andrew T. McNamara

1989

MG Nathanael Greene
MG Henry G. Sharpe

1990

BG Richard N. Batchelder
COL Timothy Pickering

1991

MG Webster Anderson
LTG Arthur J. Gregg
MG Kester L. Hastings
MG George A. Horkan
LTG John D. McLaughlin
GEN Richard H. Thompson
LTG Woodrow W. Vaughan

1992

LTG Eivind H. Johansen
COL Frederic E. Johnson
SGM John C. Marigliano
MG Joseph E. Pieklik

1993

CW4 Stephen N. Chobanian
LTG Kenneth E. Lewi
SGM Roy L. Morrow
Mr. Wayne A. Smith
COL Joseph J. Volpe

1994

BG Everett Busch
Miss Jane C. Ebbs
MG Roy T. Evans Jr.
MG Robert C. Gaskill
BG Charles D. Hartman
LTG Joseph S. Laposata
CW4 Howard P. Melvin
Mr. Edward H. Neese
Mr. Richard P. Porter Sr.
COL Oscar J. Sanders
MG Fred C. Sheffey
MG Eugene L. Stillions Jr.
CW4 John A. Ward

Hands Across the Quartermaster Corps

Michael L. Davis

Over 20 some years ago when I was entering military service, I ran into a man I had first met in school. He had a very severe hand injury. This was one of first, but not last, hand injuries I was to see.

He was being discharged from the service because of the injury. He had been dismounting from a vehicle when his ring became caught on a bolt. The finger and ring were left hanging on the side of the vehicle when he hit the ground. His finger had been ripped out at the metacarpal phalangeal joint in the hand. Major surgery saved the rest of his hand. Even after surgery, he could never grasp objects or close his hand into a fist. He always wondered what happened to his finger and his ring.

The hand is a complicated biological marvel required to perform complex motions every day. Even minor injuries can cause severe problems for a soldier — from tendon and ligament damage, nerve damage, broken bones, damaged arteries and veins to the loss of range of motion (not being able to grasp, manipulate objects or move the hand normally).

Hand injuries are not limited to any one Quartermaster military occupational specialty. The following scenarios are representative of why Quartermasters receive hand injuries on the job every year:

- The soldier rushed while adjusting the seat of his truck. Because the knob was very tight, he was using both hands. As the knob and bolt assembly turned, the bolt came unthreaded. The seat collapsed and pinned the soldier's fingers on both hands under the assembly. After surgery, several months of therapy, a lot of pain, and over $5,000.00 in cost to the Army, the soldier was able to return to duty.
- A soldier was not paying attention while cleaning a blender in the dining facility. He hit the on-button while his other hand was inside the blender. He lost two fingers, broke bones in two other fingers and his hand, and had many cuts. He had forgotten to unplug the blender before cleaning it. The soldier had to be discharged from the Army.
- Three soldiers were moving desks with a forklift while another two soldiers acted as ground guides. While moving two desks, the load began to shift. The soldiers on the ground jumped forward and tried to stabilize the load. At the same time, the forklift driver tried to lower the load. The load came down too fast, trapping the hands of the ground personnel. One soldier suffered minor damage, and the other ground guide lost two fingers and broke bones. The more severely injured ground guide was discharged because of the injury.
- While warming his hands over a running engine, a soldier's hand was struck by the rotating fan. He suffered major damage to his hand. He had to be placed on limited duty after surgery and therapy for several months.
- By himself, a soldier tried to lower the landing legs on a MILVAN trailer carrying a refrigerator unit. Not paying attention, he placed his hand between the ground and the landing leg while lowering it. The leg came down and trapped the soldier's hand to the ground. The accident caused major tendon damage and broken bones.

The following incidents illustrate why horseplay also continues to play heavily in hand injuries:

- A soldier climbed a chain link fence instead of using the gate. The sharp fence wiring punctured his hand. Surgery and therapy cost the government over $4,800.00.
- A soldier was looking at another soldier's pocket when cut by the second soldier who started to play around with a knife. The first soldier was sliced deeply across the fingers of one hand, causing ligament and tendon damage. The injured soldier never regained complete use of his fingers and had to be discharged from the service.

Sports also contribute to hand injuries:

- A soldier was playing flag football and attempting to tackle another player. Instead of grabbing the flag, the soldier's fingers on one hand were jammed. Soon after this, the tackler realized he could not bend his fingers on that hand. Total government medical and therapy costs exceeded $17,000.00.

- A basketball game turned into a combat game with no rules when one soldier had his fingers broken during rough play. Another soldier required minor surgery for damaged tendons in three fingers. Both required time off and therapy to regain full use of their hands.

These injuries can only be reduced with a major effort by leaders to instill in their soldiers the personal responsibility to follow rules and pay attention to what they are doing.

Home accidents also account for a number of Quartermaster hand injuries:

- While working on a self-help project, a soldier lost one finger and had the tendons cut in two others while cutting wood with a table saw. The soldier was discharged from the Army because of these injuries.
- A soldier at home received a scratch on the hand while cleaning a bird cage. By the next day, the soldier's hand has swollen and discolored. He had to be treated at the hospital and placed on quarters. Even minor injuries can be dangerous and cause major problems.
- A soldier attempted to break up a fight between his dog and another dog. He received massive damage to one hand when his own dog bit him while he was separating the two fighting dogs. A specialist had to repair nerve and tendon damage.

All these hand injuries have two things in common: individual error and inattention to detail. Hand injuries involve only a small number of Quartermaster personnel yearly. However, hand injuries cause serve pain and a large amount of time off the job and medical care, quarters and limited duty, major and minor surgery, and physical/occupational therapy. These injuries cost the Army thousands of dollars and a soldier's possible discharge for medical reasons.

Leaders need to review and identify the hazards associated with a mission, inform soldiers of those hazards, and provide controls to reduce risks. Hazards to the hand are usually not discussed during briefings and are overlooked by leaders who are using the risk management process. The first step of the risk management process is to identify risks involved in a mission or event. These risks are the potential sources of danger that personnel can encounter while performing their task or mission. Only by performing an analysis can the leader identify those risks associated with all specified and implied job requirements. The leader must also determine the hazards causing these risks, inform personnel and control the risks.

Leaders can reduce hand injuries by following nine simple rules:

- **Use the risk management process.** All operations can present hazards to both personnel and equipment. Both are important to complete a successful mission and to save personnel and equipment.
- **Enforce all standards and hold personnel accountable for their own actions.** Safety is a by-product of professionalism, individual control and attention to detail, and correct job performance the first time every time.
- **Know your soldiers.** Know their abilities and their qualifications. Test and train personnel on what they need to know.
- **Know your equipment.** Know its capabilities, working conditions and injuries that the equipment can cause. Ensure your personnel have this information.
- **Manage risks in training.** Integrate safety with mission requirements. Learn what can go wrong. A high degree of safety can be achieved through the systematic management of inherent mission/event risk.
- **Stress supervisor involvement.** First-line supervisors are the most important link in accident prevention. Briefings on hazards and on-the-spot corrections are vital functions that leaders at all levels must perform daily. Apathetic, careless supervision leads to apathetic, careless soldiers and to accidents.
- **Incorporate safety briefings into all levels of the mission.** Commanders, platoon leaders and noncommissioned officers at all levels must stress safety on a continual basis. Make the briefings positive and relate them to the mission.
- **Motivate personnel to practice safety.** Award soldiers who contribute to a safe work environment. Personnel who commit violations, however, must be disciplined in the same manner as if they had disobeyed any other order, whether written or oral.
- **Maintain awareness.** Be constantly aware of the critical importance of safety in all operations and of the hazards of every mission.

Leaders and soldiers of all ranks can protect the force and maintain peak readiness only with continuous awareness and training.

Michael L. Davis, Quartermaster Branch Safety Office, U.S. Army Quartermaster Center and School, Fort Lee, Virginia.

PROFESSIONAL READINGS

The Professional Readings section of the *Quartermaster Professional Bulletin* encourages the professional development of all Quartermasters. Titles are selected from the Quartermaster School Professional Reading List and 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 following book reviews are excerpts from reports by recent graduates of the Quartermaster Officer Basic Course at Fort Lee, VA.

Plain People of the Confederacy

Bell I. Wiley, Peter Smith Publishing, Inc.: Magnolia, MA, 1943.

With information from muster rolls and two previous studies, Wiley gives an enlightening account of the soldiers, the people left at home and the slaves of the Confederacy. Muster rolls revealed that over 100 occupational groups participated in battle, with many persons below the age of 18. An aspect of Wiley's research that should be noted is that rich plantation owners were excluded from the war, often hoarding food and supplies for themselves.

Several 13- and 14-year-old soldiers were included in the rolls, a situation similar to today's Third World warfare. Wiley points out that many young soldiers were initially enthusiastic about battle but were quickly disillusioned by not only battle itself but also the logistics and secondary problems that face soldiers. The author successfully displays the human side of the Confederate soldier. His account enables the reader to relate to the Civil War in the shoes of the soldier. —*LT Craig W. Streetman*

What They Fought For

James M. McPherson, Bantam Dell Doubleday Publishing Group, Inc., New York: 1994.

The author, a George Henry Davis Professor of American History at Princeton University who is an expert on the Civil War era, theorizes that Confederate soldiers fought largely for the liberty and independence of their individual states while Union soldiers fought primarily to preserve the unity of the states. While maintaining this theme throughout, McPherson also explores several, less-recognized motives compelling soldiers on both sides to fight as they did. For example, he relies heavily on personal memoirs, journals and correspondence to identify these personal reasons for going to war: ideology, peer pressure, group cohesion, male bonding, ideals of manhood and masculinity, religion, concepts of duty and honor, functions of leadership and coercion, and hatred and vengeance.

McPherson's method of researching personal papers and letters cannot help but reveal the truth about what compelled these men to fight as had no cause ever before. When soldiers can look to a common or specific goal or value, their performance is positively impacted. This phenomenon easily applies to today's Army. Leaders should bear in mind what motivates their soldiers and consider motivation when planning operations or determining morale.—*LT Preston M. Windham*

A Respectable Army: The Military Origins of the Republic, 1763–1789

James K. Martin and Mark E. Lender, Harlan Davidson: Illinois, 1982.

The authors' thesis is that contrary to the popular mythology that has evolved about the U.S. struggle to establish itself as a nation, American independence was really secured by the development of a capable, professional standing army. Furthermore, the republican order that resulted from the war was because of, rather than in spite of, the establishment of the regular army. The authors seek to prove their thesis with a chronological overview of the Revolutionary Era, examining the military aspects of the conflict and relating them to the political and social developments in the 13 nascent states.

Throughout the book, the authors look at the pervading myth of how the virtuous citizen-soldier left his plow in the field to go off and fight for republican principles. The moral fiber and depth of commitment of these brave militiamen proved too much for the invading British to overcome, so the story says. While help from the militia and from France proved essential to winning the war, the regular army provided the core of operations. The generals' ability to maneuver, to command and control, and to rely on this disciplined force provided the

base for all the plans and activities that really won the war. Furthermore, the existence of the army helped ensure that the resulting political order would neither be too loosely divided among states, nor dominated by any type of autocrat. The authors' study is a significant contribution to Revolutionary War historiography because they use a method different from the traditional battles-and-tactics discussion of the struggle for independence.The authors' general point of view is valid: tradition and myth have amplified the role of the volunteers who came and went with the sun, at the cost of the regulars who suffered and stuck out the whole war. It would be easy to make too great a link between this study of two centuries ago and the military needs of today. Just because a regular, standing army was necessary for a people in a particular situation at a particular time, does not mean that it is necessarily so today. However, one major point in the authors' thesis applies: it is difficult to win a war without some degree of professionalism. — *LT Matthew J. Festa*

Please Understand Me: Character and Temperament Types

David Kiersey and Marilyn Bates, Prometheus Nemesis Book Company: Del Mar, CA, 1984.

The authors believe that there is no way to change people's differing beliefs, motives, impulses, values and needs. Moreover, there is no need to promote uniformity of behavior or personality, for people complement one another with their differences. The authors examine the 16 personality types identified by psychologists Isabel Myers and Katheryn Briggs in the 1950s. Kiersey and Bates build on the research of Myers and Briggs and place them in the context of today's world.

The authors use the personality types as a focus for the remainder of the book, as they lead the reader though the process of self-analysis. Their chapter on temperament and leadership is especially relevant to today's Army. Kiersey and Bates identify different approaches to managerial positions which range, for example, from tendencies toward support for the institution above all, to support for individuals, even to support of an ideal that may have little to do with the mission of the institution but may benefit that institution. The authors recognize the "genius" that even the most unlikely leaders can bring to a position of authority.

There are as many different personalities as there are people, and just as many different values and motivations. Understanding that we live in a complex world can be of benefit, even when we must make "black and white" decisions, as we do in the business world and in institutions such as the Army. Learning how to relate to people who are not like ourselves and to recognize their contributions to the tapestry of human effort is the best form of leadership and followership. This book offers significant insights into this form of personal growth. — *LT Elizabeth A. Festa*

Lead On: A Practical Approach to Leadership

Rear Admiral Dave Oliver, Jr., Presidio Press: Novato, CA, 1992.

Rear Admiral Oliver attempts to express his conviction that good leaders develop certain desirable attributes. In an informal and conversational style, the author relates the attributes he chose to develop and stow in his "knapsack" for personal use. He discusses each of the following attributes in turn: patience, fear, integrity and communication. He does this by describing situations during his career as a Navy officer.

Rear Admiral Oliver said that the young leader is too often guilty of attempting to solve problems hurriedly or develop biases before taking time to observe the environment. He states that "fear is an integral part of many professions." Often a leader attempts to appear undaunted by situations that should cause him to run away and bury his head in a hole. The leader should recognize his fear as a warning sign of a situation that requires special consideration. On integrity, the author states "there is always room at the top for the honest man." Not only is personal integrity excellent weaponry, but also armor that deflects all blows devoid of truth. Rear Admiral Oliver said that communication serves several purposes. For example, communication affords the subordinate's supervisor no surprises.

Rear Admiral Oliver describes several attributes that should be a part of every good leader's personal makeup. Although his descriptive situations are derived from his Navy experience, the attributes he describes should be acknowledged by Army officers and enlisted soldiers alike. — *LT James S. Pugh*

Expanded Opportunities for Force XXI Civilian Logisticians

Tim Overstreet

In 1996, an expanded array of Department of the Army (DA) centrally funded training and competitive professional development opportunities will be available to civilian logisticians in the CP-13 supply management career field. Unless indicated, eligibility is for permanent career status employees at the GS-12 or above level or exceptional GS-11 employees. Funding will be provided for most training-related expenses, but not for employee salaries. For more information and to obtain an application package or a copy of the *FY96 Catalog of Civilian Training, Education and Professional Development Opportunities*, see your local training office.

Here are highlights of the major 1996 programs:

Developmental Assignment. A greater number of six-month and one-year developmental assignments are planned. This is an opportunity for employees to lend their expertise to the Department of the Army's readiness and sustainment objectives while broadening their perspective through exposure to a diversity of projects and leadership levels. Participants serve as action officers, assist with the development and implementation of policies, and may have opportunities to brief senior executives and general officers. Most assignments will be at the Pentagon, although some individuals may serve at other logistics offices throughout the world.

University Education. The Logistics Education Assistance Fund (LEAF) for undergraduate study and the Graduate Level Logistics Education Assistance Fund (GLLEAF) for graduate study now provide greater flexibility to logisticians seeking an opportunity to attend a college within their community area (50-mile radius).

Employees may apply for *full-time attendance* instead of regular duty hour attendance for up to 12 consecutive months. They may also apply for *part-time attendance* for up to 24 consecutive months. Classroom attendance may occur during duty time, non-duty time or a combination of both. The employee must return to work for any portion of time during normal duty hours not required for school attendance or supervisory-authorized school preparation. All courses must be approved by Headquarters, DA (HQDA). Program expenses are limited to books and tuition. Participants must meet the minimum hours-per-term requirements.

Supply Management Career Program Fellowship. This a 3- to 12-month fellowship granted to support study or research for special projects relevant to the Army's logistics mission. Locations may include universities or other education or research environments. A proposed project must demonstrate high potential value to the Army and must be achievable during a definite time period. A fellowship may also involve Training With Industry, an increasingly important method for enchancing a logistician's technical skills and knowledge of effective business practices.

Program for Research Fellows in National Security. Open to employees at level GS-14 and above, this is a 10-month opportunity to study a wide range of public management, business management, and national security issues with a highly select group of military and civilian officials at Harvard University's John F. Kennedy School of Government. Competition is high and space is limited. Send applications for the program beginning in Summer 1996 to HQDA by December 1995.

Senior Service Schools. High-potential logisticians at the GS-14 or GS-15 level and exceptional GS-13s are encouraged to apply for the Army War College, the Industrial College of the Armed Forces and similar programs. Program length is 10 months. Competition is high and space is limited.

Short-Term Training. This a training opportunity or developmental assignment for less than 120 days to broaden a careerist's experience or to gain knowledge of specific functional areas with the field of supply management.

The Combined Logistics Officer Advanced Course (CLOAC). CLOAC is now open to high-potential civilian supply careerists. Your local training office can provide more information about CLOAC, the Army Management Staff College, the Logistics Executive Development Course, and a host of other training opportunities.

A New LOGAMP. The Logistics and Acquisition and Management Program (LOGAMP) is currently being reengineered into a cutting-edge program to provide high-quality training to exemplary careerists. The new LOGAMP (look for a new name!) will become the cornerstone of a Logistics Professional Development Corps of exceptionally knowledgeable and skilled logisticians in support of a Force XXI Army. Eligibility will be at the GS-13 and above levels, and also exceptional GS-12s.

Future editions of the *Quartermaster Professional Bulletin* will give more information about the new LOGAMP, plans for a Supply and Maintenance Management Proponency Office that will focus on civilian career development, and a reengineered supply and maintenance management intern program.

Tim Overstreet, a Human Resource Development Lead at the Integrated Management Center of the U.S. Army Missile Command, is currently on assignment within Headquarters, Department of the Army, Office of the Deputy Chief of Staff for Logistics.

Functional Area 90 for the Reserve Component

The Functional Area (FA) 90 Logistician Program develops combat service support (CSS) officers capable of planning and executing multifunctional logistics operations across the spectrum of logistics functions (Arm, Fix, Fuel, Move and Sustain). The need to develop a population of trained multifunctional logisticians is vital to the mobilization readiness of the Reserve Component (RC), particularly since most of the CSS force structure resides there.

The RC initiated the FA 90 program by recoding positions that were coded 03A (Logistics Immaterial) to position code 90A. Logistics positions that were functionally coded — branch coded — remained unchanged. FA 90 also replaced additional skill identifier (ASI) 7Z.

Interim authority for awarding the FA 90 designation was granted in Summer 1994. The application and award process is now well under way. However, many questions about the intent of the program and qualification requirements remain. The recent publication of DA Pamphlet 600-3 (Commissioned Officer Development and Career Management) may answer some of these questions. The pamphlet completely describes the FA 90 program and gives detailed guidance about educational and experience requirements.

The criteria for participation in the FA 90 program is relatively straightforward. The program is available only to officers (CPT through COL) qualified in one of the following branches/areas of concentration: Transportation (specialty code (SC) 88); Ordnance (SC 91); Quartermaster (SC 92); Medical Service Corps (Multifunctional Area 70 series) and Aviation Logistics (SC 15). Branch qualification is the key element. The road to FA 90 begins there.

The development of RC FA 90 officers is a four-step process that concentrates on completing certain educational goals and seeking assignments that provide both functional and multifunctional experience. The four phases are as follows:

- CPT Phase. The objective of this phase is to become branch-qualified by attending a CSS branch officer advanced course (OAC) or the Combined Logistics Officer Advanced Course (CLOAC). Additional requirements include completing the Support Operations Course (SOC) or the Reserve Component Multifunctional Combat Service Support Course (RCMCSSC), depending upon the level at which the officer is assigned. Completing at least two CSS OACs will fulfill FA 90 educational requirements at this level.
- MAJ Phase. Continued development of logistical skills by serving in certain FA 90 coded positions and by pursuing self-development opportunities are among the goals of this phase. The educational requirements of this stage are completion of 50 percent of Command and General Staff College (CGSC) or the Associate Logistics Executive Development Course (ALEDC) or the Logistics Executive Development Course or the previously mentioned SOC or RCMCSSC.
- LTC/COL Phase. Both phases concentrate on successful service in an FA 90 coded position, completion of a Senior Service School and a precommand course, if selected for a command position.

For more information about FA 90, refer to Chapter 46 of DA Pamphlet 600-3. Direct additional questions to the appropriate military personnel officer at one of the following agencies:

- USAR IMA/IRR—ARPERCEN, St. Louis, MO, at (800) 325-4857/4980 or DSN 892-2146.
- USAR TPU—USARC DCSPER, Atlanta, GA, at (800) 359-8483, extension 8063 or (404) 629-8063.
- USAR AGR—Full Time Support Management Center, St. Louis, MO, (800) 325-4118 or DSN 693-4118.
- National Guard personnel may contact their respective State/Territorial Adjutant General.

The U.S. Army Combined Arms Support Command's point of contact is LTC Robert Vaughn, DSN 687-0312 or (804) 734-0312.

Logistics Automation in the U.S. Army Reserve

While lessons learned from *Operation Desert Shield / Desert Storm* are fast becoming outdated, one fact still painfully remains. The fact: the U.S. Army Reserve (USAR) still lacks the logistics automation to achieve full interoperability with its counterparts during any mobilization. Today, the USAR makes up over 60 percent of the Total Army's combat service/combat service support (CS/CSS) force, yet has available less than 16 percent of the logistics automation required to go to war.

The USAR must not only be equipped, but also trained and ready to use logistics automation. In mobilization for *Operation Desert Shield / Desert Storm,* Re-

serve Component (RC) soldiers, and in some cases units, were not deployed until they were trained up on Standard Army Multicommand Management Information System (STAMMIS) software. In the future, the Army may not have several months for a buildup as in the past. With the downsizing of the total force, the USAR will provide a greater percentage of CS/CSS units than ever before. The 16 percent of logistics automation in the USAR should be considered an unacceptable risk in any future planning.

The Department of the Army (DA) Deputy Chief of Staff for Logistics (DCSLOG) within the U.S. Army Reserve Command (USARC) has recognized this need and has documented that need for DA DCSLOG. At this time, funding is restricting improvement in equipping the USAR. The USAR fielding continues to fall below the funding level even though the USAR has a significant number of Force Package 1 and 2 units.

A concept the USARC DCSLOG has developed would not only involve the fielding of logistics STAMMIS automation to modification table of organization and equipment units, but also to key peacetime command and control headquarters. This would enable the USAR to move out of the manual mode of daily operation and use the "Go to War" STAMMIS automation for daily operations.

DA and the USAR must work together to find a solution to the funding shortfalls to have an interoperable CS/CSS force to support future contingencies. The USARC DCSLOG point of contact is LTC William Simmons at (404) 629-8832 or E-mail simmonsw@usarc-emh1.army.mil.

Split Option Training Program

Split Option Training is a valuable recruiting tool for Quartermaster Reserve Component (RC) commanders. Commanders can offer summer training for new soldiers in RC units while the soldiers complete high school or college with as little disruption as possible.

Commanders should be aware that a number of these soldiers are experiencing difficulty in meeting physical fitness standards during advanced individual training (AIT). Some soldiers are reporting to AIT without having maintained the physical standard they reached during basic combat training the previous summer. This is potentially a health hazard for the soldier in the often severe summer heat and gives a less than desirable impression to fellow AIT soldiers about the abilities of RC soldiers. Also, soldiers who fail to meet the minimum Army Physical Fitness Test by the end of AIT will not graduate and may have to be recycled the following year. RC commanders are strongly encouraged to develop individual physical training programs to assist Split Option Training soldiers in meeting the physical challenges of AIT.

Quartermaster Reserve Component (RC) Officer Advanced Course

This two-phase course, designed for RC first lieutenants and above, was fully implemented 1 Oct 94. Phase I consists of 28 correspondence subcourses that the soldier must complete before reporting for the two-week resident Phase II taught at Fort Lee, VA. Students reporting for Phase II without a Phase I completion certificate will be returned to their units. Constructive credit is no longer given for any phases from the previous four-phase program. Completion of this course qualifies non-branch RC officers for Quartermaster branch transfer. However, non-branch RC officers may also take the Supply Management Officer Course (correspondence) to qualify for branch transfer if they have already completed another advanced course. This approach allows RC unit commanders to allocate scarce training dollars to only those junior officers who have not previously taken any advanced course. Commanders should remind students that beginning in FY 96 everyone must take and pass the APFT during Phase II regardless of when they were last administered the test.

Class dates for FY96 are as follows:

Class 001 21 Oct 95 – 03 Nov 95	Class 003 27 Apr 96 – 10 May 96
Class 002 24 Feb 96 – 08 Mar 96	Class 004 10 Aug 96 – 23 Aug 96

Reserve Component (RC) 92R10, Parachute Rigger Course

The U.S. Army Quartermaster Center and School is coordinating with the U.S. Army Training and Doctrine Command to extend the RC 92R10 Parachute Rigger Course from 7 to 10 months for the RC. This change will allow students the time to maintain current jump status as required by the program of instruction. Only soldiers in the grade of E4 and below will be permitted to attend this course. In the past, reclassified soldiers (E5 and above) attended the 92R10 course. This practice was stopped because of safety considerations.

Total Army Training School System Courseware (TATSC)

In support of the U.S. Army Training and Doctrine Command's implementing TATSC totally by FY98 under the basic objective of Warrior XXI—One Army, One Program of Instruction, the Training Directorate in the U.S. Army Combined Arms Support Command is programming all Quartermaster RC3 courses for revision for both Active and Reserve Components. These courses are scheduled for revision in FY96 with completion in FY97/early FY98. The following Quartermaster courses are being revised under contract funding and will be completed by 1st Quarter, FY98:

- MOS 57E10, Laundry and Shower Specialist (under Environmental Stewardship funding)

- MOS 77F10, Petroleum Supply Specialist
- MOS 77W10, Water Treatment Specialist
- MOS 92A10, Automation Logistics Specialist
- MOS 92G10, Food Service Specialist (formerly MOS 94B)

Testing CSS Innovations

A Chief of Staff, U.S. Army exercise, with a U.S. Army Reserve Unit playing the part of the Theater Support Command, recently tested three "firsts" in combat service support (CSS). The 19th Theater Army Area Command (continental United States Augmentation) (19th TAACOM (CA)) of Des Moines, IA, participated in Exercise Prairie Warrior '95 to test one new organizational concept, one new training concept, and one new office automation concept that could greatly change CSS planning and delivery in theater.

The concepts were (1) the interactive linkage of a logistics/CSS computer training system with a war fighter computer training system, (2) the test of a new organizational concept for a theater logistics/CSS delivery in the theater, and (3) the introduction of the "paperless office" concept into a major logistics/CSS headquarters. Potentially the most important innovation to come out of Exercise Prairie Warrior '95, the "paperless office" idea was adapted from private sector technology by a lieutenant colonel in the 19th TAACOM (CA) who works for a major Des Moines insurance company.

Exercise Prairie Warrior '95, written by Command and General Staff College (CGSC) students at Fort Leavenworth, KS, tested the three concepts at Fort Leavenworth and Fort Lee, VA. Players from a total of 33 units represented the Active Army, U.S. Army Reserve and Army National Guard in the complete linked scenario. The lieutenant colonel who thought up the "paperless office" for the Army performed management information systems functions for the exercise.

Creating Realism

First, the training innovation linked state-of-the-art, experimental computer simulation models. A main battle exercise of combat arms using the Corps Battle Simulation (CBS) computer model at Fort Leavenworth linked with the Combat Service Support Training Simulation System (CSSTSS) computer model at Fort Lee. Linkage of the two models created realistic logistical constraints on war fighters and added the realism of war scenarios for CSS units. Past operation of the CBS model (the war fighters model) and the CSSTSS (the logistics/CSS model) had not successfully created a linkage for the duration of an exercise.

Before Exercise Prairie Warrior '95, creating realism came with a multimillion dollar price tag in the form of a field exercise. With this computer linkage, the realism can be generated for a fraction of the cost.

In Prairie Warrior '95, synchronized times and synchronized data bases preceded all actions. Supplies were loaded, transported and unloaded in real time. Supplies not in theater had to be ordered from the continental United States, for example, and usually caused extra delays in a critical time during the "war." Such realistic CSS/logistics war-stoppers are not usually experienced in combat training simulations.

Streamlining Support

The organizational innovation was the Theater Support Command (TSC). Under the TSC, most CSS planning and delivery are consolidated in a single headquarters to streamline support to the war fighters. If adopted in some form, the TSC concept will answer the question of where to go for particular support: the TSC does it all. Also, TAACOMs would likely become targeted units for TSC reorganizations.

The 19th TAACOM (CA) played the part of the TSC in charge of all CSS delivery in theater, including personnel, finance, transportation, medical, Army and Air Force Exchange Service and petroleum. Modules within the TSC replaced the operational functions originally performed by full commands. One of the four TAACOMs in the U.S. Army Reserve inventory, the 19th TAACOM (CA) was chosen to exercise the TSC concept because TAACOMs are already the backbone for the delivery of many logistics functions at the theater level.

The four U.S. Army Reserve TAACOMs are the 19th TAACOM (CA) in Des Moines, which together with the 19th TAACOM (Forward) in Korea, forms the 19th TAACOM; the 21st TAACOM (CA) in Indianapolis, IN, which together with the 21st TAACOM (Forward) in Europe forms the 21st TAACOM; the 310th TAACOM, a free-standing U.S. Army Reserve unit at Fort Belvoir, VA; and the 377th TAACOM, a freestanding U.S. Army Reserve unit at New Orleans, LA.

Testing the 'Paperless Office'

For testing the third "paperless office" concept in Prairie Warrior '95, a local area network (LAN) within the 19th TAACOM (CA) exercise room created a shared unit data base and provided a paperless platform for messages inside and outside the headquarters. By the time the exercise was over, the mail room was literally unused. With information organized and readily available through a computer screen, there was no paper to shuffle and no paper to lose. Although players had the option of relying on paper messages, the preference was almost totally electronic.

CAREER NEWS

Quartermaster Functional Review

The Quartermaster Corps will present its functional review to the Deputy Chief of Staff for Logistics on 12 Jan 96. Overall, Quartermasters enter this process with 10 enlisted military occupational specialties (MOSs), 4 warrant officer specialties, and 4 commissioned officer specialties. Some restructuring is ongoing and important for the long-term health of the Corps. Quartermaster specialties are as follows:

- ***Enlisted Specialties:*** 92A (Automated Supply Specialist), 92G (Food Service Specialist), 92M (Mortuary Affairs Specialist), 92R (Parachute Rigger Specialist), 92Y (Unit Supply Specialist), 43M (Fabric Repair Specialist), 57E (Laundry and Shower Specialist), 77F (Petroleum Supply Specialist), 77L (Petroleum Laboratory Specialist) and 77W (Water Treatment Specialist).
- ***Warrant Officer Specialties:*** 920A (Property Account Technician), 920B (Supply Systems Technician), 921A (Airdrop Systems Technician) and 922A (Food Service Technician).
- ***Commissioned Officer Specialties:*** 92A (Quartermaster, General); 92B (Supply and Materiel Management); 92D (Aerial Delivery and Materiel); and 92F (Petroleum and Water).

The Active Component has some 51,000 Quartermaster soldiers and a healthy complement of Department of the Army civilians. About 51 percent of Quartermasters serve in above-the-line units in positions such as supply sergeants, food service specialists and property book officers. Many work independently of supervision from more senior and experienced Quartermasters and, therefore, must be well trained and motivated. Quartermaster strength in the Reserve Component (RC) includes 31,000 enlisted soldiers and officers in the Army National Guard and 51,000 in the U.S. Army Reserve.

The following Initiatives/Issues/Concerns were published to the field by separate message (DTG 291600ZAUG95):

Initiatives/Issues/Concerns

- ***BNCOC Show Rates:*** Despite the U.S. Army Total Personnel Command (PERSCOM) routinely booking attendance to the Basic Noncommissioned Officer Course (BNCOC) at the 120 to 130 percent range, Quartermasters have a low rate for soldiers in low-density MOSs actually showing up. This means that many Quartermasters are scheduled to attend but are frequently or repetitively deferred. For example, as of Aug 95, the average show rate for 92G (formerly 94B) (Food Service Specialist) was 82 percent, and only 62 percent for 92Y (Unit Supply Specialist). The primary concern here is for those NCOs who are repetitively deferred: some NCOs are deferred four to five times or more.
- ***92A Review:*** Enlisted MOS 92A (Automated Supply Specialist) continues to receive a lot of attention from commanders. The U.S. Army Quartermaster Center and School (USAQMC&S) initiated a study of the issues with this MOS. Possible remedies include separation of the former 76C (Equipment Records and Parts Specialist) MOS, increased training, or both. Other action may be equally appropriate.
- ***SARSS-O Additional Skill Identifier:*** Several installations have fielded the Standard Army Retail Supply Supply-Objective (SARSS-O) during the past three years. When soldiers trained during new equipment fielding permanently change station, there is no system in place to track their SARSS-O experience. Therefore, SARSS-O sites must continually train soldiers to meet their needs, and the potential impact is decreased unit readiness because of untrained operators at the SARSS-O sites.
- ***RC NCO Transfers Into MOS 92R (Formerly 43E):*** The USAQMC&S frequently receives requests for NCOs (SGT through 1SG) to attend the rigger course at Fort Lee. This field is strictly limited to Quartermaster soldiers, and the -10 level course at Fort Lee does not prepare a soldier for entry into the rigger field at the SGT through 1SG ranks. This is a personnel safety issue and is not waiverable. Also, Quartermasters need support from the total force to give young riggers the opportunity for promotion in their field rather than allowing in-calls from other MOSs.
- ***MOS 77F (Petroleum Supply Specialist) Recovery From Predominant MOS Test:*** The idea that fuel handlers without the 77F MOS can perform as well as school-trained 77F soldiers has proven false. This caused the recoding of some 2,000 positions back to MOS 77F. How-

ever, the training base has been unable to keep up with the training program and does not expect to do so until 1996. This is mainly because of a training bottleneck at the additional skill identifier H7 portion of the training program at Fort Leonard Wood, MO. The solution is correct but the remedy to get back to strength will take longer than expected.

- ***MOS 77F (Petroleum Supply Specialist) Readiness Issue:*** Petroleum Supply Specialists who become pregnant must immediately discontinue their close contact with fuel products. To further complicate this requirement, most 77F noncoded positions are in the division support command, corps support command or echelons above corps organizations. Therefore 77F soldiers who become pregnant often have the hardest impact on units who have the largest petroleum mission. Quartermasters must look at this MOS issue seriously as the Army further expands the role of women in many MOSs.
- ***92G (Food Service) Commissioned Officer to Warrant Officer Positions:*** The 92G officer specialty will be eliminated in FY96. The 92A (Quartermaster, General) officers will replace most of these positions. Some positions should be filled by 922A (Food Service Technician) warrant officers. The USAQMC&S will work with table of organization and equipment/modification table of organization and equipment developers to identify and recode these positions throughout FY96.
- ***Warrant Officer Recruiting Problems:*** The USAQMC&S and field commanders must encourage enough experienced sergeants to apply for and complete warrant officer training. Improvements are underway in the Warrant Officer Candidate Course, and Quartermasters should encourage our best senior NCOs to attend. The course will remain challenging, but will acknowledge that all candidates are not "high school to flight school" applicants. Many are professional soldiers ready to move into the officer ranks. There is a price for accession into the Warrant Officer Corps, but a reasonable and fair price.
- ***Officer Branch Detail Program:*** The Deputy Chief of Staff for Personnel is reviewing a proposal to allow branch detailing to shift from a two-year detail to a four-year detail program. Many leaders believe the Army's needs are better served if the detail program begins at the oath of office and ends at the three-year mark in an officer's career. This also gives Quartermaster lieutenants an opportunity to serve in a logistics unit before attending the Combined Logistics Officer Advanced Course or being promoted to captain. In the final analysis, the supported units will be the beneficiaries.
- ***Quartermaster LTC Functional Commands:*** Of the combat service support (CSS) branches, Quartermaster has the fewest functional commands. Functional commands guarantee a branch command opportunity. Ordinance Corps has 42. Transportation Corps has 34. Quartermaster Corps had 14 and lost three when commissary commands were "civilianized." Nevertheless, Quartermaster officers do well in selection for command among Ordnance and Transportation counterparts for multifunctional commands. Battalion command is a necessity before an officer can be selected for senior service college and subsequent brigade-level commands. Those branches with numerous functional battalion-level command opportunities have a distinct advantage. Consequently, functional commands should be more equitable among the branches or should be leveled with designated FA90 command opportunities in terms of a floor for Quartermaster officers. In addition to being fair, this practice will add some discipline to the Command Designated Positions List process.

Professional Development

As the Army continues to draw down, we at the Quartermaster Branch, U.S. Army Total Personnel Command (PERSCOM), would like to update Quartermasters about some new changes, developments and trends in the assignment and professional development arenas.

Personnel Electronic Records Management System (PERMS)

LTC Jeffrey Earley, Quartermaster Officer Assignments Branch Chief

What is PERMS, and what will PERMS do for you?

PERMS is a state-of-the-art automation system using optical digital imagery technology to store and maintain **your** Official Military Personnel File (OMPF) on optical platters at Headquarters, Department of the Army (HQDA).

Historical Background

The U.S. Army began maintaining and centrally managing official military personnel records for ac-

tive duty, reserve and former Army service personnel in the early 1900s. By the early 1970s, the number of official records being maintained as paper documents had increased astronomically. They required thousands of management and administrative personnel and extensive time to process even routine requests. One of the problems was a lack of record backup in the event of loss or destruction. Although a large number of official personnel records were converted to microfiche by 1980, this proved to be only a partial remedy. Today, the Army's major personnel records centers house more than the equivalent of 200 million pages of official records. Obviously something had to be done, and today's technology has provided the answer: PERMS.

Transition to PERMS

Development of PERMS involved the design, integration, installation and maintenance of an electronic record management system with the following objectives in mind:

- Use optical digital imaging technology to capture, store and retrieve images obtained from paper, microfiche or digital media.
- Provide rapid access to, and display of, digitized record images stored on optical disks.
- Scan documents from paper or microfiche for entry into the system.
- Provide electronic output to workstations, image printers and computer output microfiche units.
- Provide copies of entire records, or specific documents within a record, on paper or microfiche in a timely and efficient manner.

PERMS provides an answer to the problems of records management officials while greatly improving the records management process as follows:

- Reduce storage requirements by storing entire records of approximately 600 soldiers on a single 12-inch optical platter.
- Provide access to a partial or entire record in less than 20 seconds.
- Automate records management functions. Provide connectivity to mainframe computer systems and communications networks.
- Provide backup protection for records and documents. Preserve document images for active and archival purposes.
- Provide simultaneous access to records by multiple users.
- Eliminate voids, blackouts and out-of-sequence images. The system's index database will ensure chronological recording of documents despite authorized addition or deletion of document images.

Current Status

All active duty officer and enlisted OMPF microfiche are undergoing conversion to digitized images and subsequent storage on optical platters with an expected completion of March 1995 (officers) and December 1995 (enlisted soldiers).

Beginning April 1995, active duty officers in a zone of consideration for promotion, command or school selection will receive copies of their PERMS-generated OMPF microfiche before board consideration. Officers will be asked to review files for completeness and accuracy and will be given an opportunity to request correction of errors that may have occurred during conversion. Since OMPF microfiche will be mailed to home addresses, it is critical home addresses are correctly recorded on the Officer Records Briefs (ORBs). Of course, officers can still obtain a copy of their microfiche at any time by written request to CDR, PERSCOM, TAPC PDI S, ALEXANDRIA VA 22332-0444. Include name, grade, social security number, mailing address and signature.

Looking to the Future

Through the use of PERMS and other data automation technology, the Army is currently planning:

- Elimination of the field Military Personnel Records Jacket (MPRJ). Efforts to reduce unnecessary and costly records duplication will result in the elimination of the active duty soldier's MPRJ. The officer MPRJ was slated for elimination during the summer of 1995 followed by the enlisted MPRJ by late 1997.
- Development of a PERMS Selection Board Subsystem which will revolutionize the way centralized selection boards are conducted. Besides providing board members with the most up-to-date and accurate OMPF files on screen, virtually all board administrative processes will be automated, providing for enhanced accuracy and timeliness of the products after the board.
- Distribution of PERMS workstations to HQDA career/assignment managers with direct access to PERMS via computer workstations. This will pave the way for elimination of the paper Career Management Individual File currently used by career/assignment officers.
- Eventual distribution of PERMS user workstations down to the installation level providing

field personnel managers with direct on-line access to the OMPF.

Command and General Staff College

MAJ Harry K. Ching, Majors Assignment Officer

Completion of the Command General Staff College (CGSC) is one of the major achievements for a field grade officer. Selection for the resident course is highly competitive. I have stated the importance of CGSC before, but I believe I need to repeat it again: officers will not be selected for lieutenant colonel without CGSC!

The current guidance for CGSC selection is that 50 percent of every year group will be selected for the resident course. Each year group will have four chances to be selected by the CGSC Selection Board. These boards meet every year in the spring-summer timeframe. The first two opportunities offer the best chance of selection as illustrated:

Command and General Staff College Selection

Number of Officers Eligible for Selection	100
1st Look	20
2d Look	20
3d Look	7
4th Look	3
Total Officers Selected	50

The officers who are most competitive for resident CGSC have two, top block command reports and have above center of mass files. Officers who have only one top block command report are still competitive for selection, but their best chance is the 2d Look. It is my belief that having nonresident CGSC and a major branch-qualifying report improves an officer's chances during the 3d and 4th Looks. If anyone has a question about chances for CGSC selection, please give me a call. Now, I will discuss CGSC slating.

Slating officers for the resident CGSC begins in January-February of each year. Slating guidance provided by the PERSCOM Commanding General dictates priorities and distribution of officers to sister service schools. The primary factors for the slating process are as follows:

Resident CGSC Slating Factors

- Time on station.
- Basic year group.
- Year selected for by selection board.
- Returning from overseas (May-August).
- Below the zone.

For planning purposes, officers who are deferred, returning from overseas or have 36 months time on station can expect to be slated for the next course. The remaining seats will be determined by an order of merit list. Any officers interested in attending a sister service school must submit a written request to the branch indicating their desires. The branch will determine the best candidates for these schools.

This information answers most questions I usually receive from the field. For further questions, phone me at DSN 221-8119/8123.

Selection Board Preparation Update

CPT Charles Hamilton, Lieutenants Assignment Officer

Will an Army centralized selection board review your file anytime soon? If so, you need to look into the status of your selection board file. Specifically, your Department of the Army (DA) photo, Officer Record Brief (ORB) and performance microfiche. After action review comments from recent boards continue (and I emphasize continue) to underscore the importance of a **current** color photograph and a clean, error-free ORB in your board file. Board members expect officers under consideration to take an individual interest in the status of their board file.

Both the photograph and the ORB are documents that all officers are expected to closely monitor and that require increased attention before an upcoming selection board. The DA photograph is normally the first document board members review. Make sure your photograph is in accordance with AR 640-30 (Photographs for Military Personnel Files) and that you are in compliance with AR 670-1 (Wear and Appearance of Army Uniforms and Insignia). A good rule of thumb: make sure your board photograph is less than 15 months old, and make sure to have someone check it. Do not leave it up to your branch to alert you that you need a new photograph. Photographs are an individual officer's responsibility.

Every officer's selection board file contains a copy of his ORB. The ORB is the historical road map of where you have been and what you have done. Also it contains key information regarding your military qualifications and important personal data. Board members closely scrutinize your ORB. It is imperative that your ORB is accurate, up-to-date and that your current duty title is listed. Do not ignore your responsibility to verify your board ORB—an ORB with ambiguous or missing information could cost you selection.

The last item in your selection board folder is your performance microfiche. Unquestionably, you

should review your performance microfiche annually. Work with your assignment officer and the PERSCOM records division to correct microfiche problems. The PERSCOM officer records point of contact is Mr. Peterson at DSN 221-9606.

If you have any questions about an upcoming selection board, contact your assignment officer directly. Your PERSCOM assignment officer is best prepared to assist you with your selection board file.

Branch Detail Program

Quartermaster Branch has received many calls from the field about the branch detail program. Most concerns regard the difficulty in releasing branch detail officers to attend the transition course, followed by the relinquishment of these officers to a combat service support unit. This transition, however, is vital to the success of the program.

Approved in 1989 by the Chief of Staff, Army, and beginning with FY90 accessions, the branch detail program is specifically designed to help the Army meet its future force structure requirements. Officers participating in this program are detailed for a period of two years from the Quartermaster Branch to Infantry, Field Artillery and Chemical branches. This two-year detail period is designed to provide these officers with combat arms and combat support arms experiences, followed by an assignment in their basic branch, while still serving as a lieutenant.

All officers participating in the branch detail program are assigned a branch exchange (BREX) date. This date is established two years from the date an officer enters active duty. Officers knowing they will one day transfer to a logistics branch should seek positions in their combat arms units such as support platoon leader, battalion motor officer, or battalion S4.

Upon reaching their BREX date, officers are scheduled to attend a temporary duty and return technical transition course, called the Quartermaster Branch Transition Course at Fort Lee, VA. The four-week course provides transition officers with an orientation to the Quartermaster Corps' diverse mission and its leadership opportunities. Officers then return to their original installation where losing commands must allow them to leave their combat arms positions and move into division support command, support groups or other logistics positions. After completing their first tour, branch detail officers will be scheduled for attendance at the Combined Logistics Officer Advanced Course, also at Fort Lee, VA.

In addition to the branch detail program, quality officers seeking to voluntarily transfer into the Quartermaster Branch may seek approval through their chain of command. Officers should obtain a letter of recommendation from a senior logistics officer and forward the request through the losing branch manager at PERSCOM.

For specific questions concerning the branch detail program, contact the Lieutenants Assignment Officer, CPT Charles Hamilton, DSN 221-8213.

Warrant Officers To Attend Logistics Executive Development Course (LEDC)

Selected Quartermaster and other CSS warrant officers will now attend the LEDC at the Army Logistics Management College, Fort Lee, VA. The 19-week, 4-day LEDC is the Army's senior logistics course for both military and civilian leaders. The Commanding General, U.S. Army Combined Arms Support Command, approved the Quartermaster General's LEDC request for Quartermaster warrant officers, effective 23 May 95.

Only three to five Quartermaster warrant officers will attend per year, and so selection is extremely competitive. Those who complete LEDC will have follow-on assignments requiring multifunctional logistical responsibilities, particularly in the design and development of future combat service support management systems. The following are the minimum prerequisites:

- CW2(P) or higher.
- Completion of Warrant Officer Advanced Course or higher.
- Completion of undergraduate degree or higher.
- Not exceed 22 years active warrant officer service.

Apply by submitting DA Form 4187 (Personnel Action) to COMMANDER, PERSCOM, ATTN TAPC OPW QM, 200 STOVALL ST, ALEXANDRIA VA 22332-0420.

The following article (author unknown) briefly portrays the Army warrant officer from inception to present. Warrant officers have been the Army's technical experts for over 77 years.

The Army Warrant Officer

I am the Army Warrant Officer.

My story is a proud one — worthy of being told — of an obscure and simplistic beginning. A story laced with words such as professionalism, pride, reliability, integrity, dedication, perseverance, courage,

competence and technical expertise. A story that continues to grow in stature — a story without end. Rather, a future of proportions limited only by the parameters of imagination and innovation.

I was conceived of civilian parentage in 1886. My parents were the Army Headquarters Clerk and Field Clerk. It took some years for the Judge Advocate General to determine that my parents held military status. An act in 1918 established the Army Mine Planters Service where I was given my first titles of Master, Mate, Chief Engineer and Assistant Engineer of the Coast Artillery Vessels. In effect, I had three grades established for Masters, First and Second Mates. I was given an officer's uniform and my own distinctive insignia. By 1920, my technical expertise had been recognized and I was authorized to be appointed in clerical, administrative and band-leading activities. I was expanded to an Armywide authorization of 1,120. I had started to mature.

In 1922, my growth was restricted when my total authorization was reduced to only 500, plus the bandmaster and 40 mine planters. My rank was restricted to only one grade except in the mine planters. It was not until the 1940s, with a few exceptions in 1936, that I regained my momentum lost in the early 1920s.

An act in 1941 was the most significant legislation since my birth. The act authorized two grades: Chief Warrant Officer and Warrant Officer Junior Grade. Flight pay was authorized for duties involving aerial flight. The act also provided that I might be assigned to such duties as may be prescribed by the Secretary of War, and further, that I could be empowered to administer oaths for all military administration. I gained much stature and was destined for more rapid growth. By 1942, an examination was developed to allow me to expand further to some 40 occupational areas. In 1944, the first female was appointed.

Following World War II, my numbers were reduced along with the rest of the Army. I was limited to approximately 12,400 spaces. There was a surplus of warrant officers as a whole, but also several critical shortages in some hard-skilled areas. Between 1953 and 1957, the Department of the Army conducted a searching analysis of my program to determine my total contributions and my destiny.

The result of the Army's study reaffirmed a need for my services and my continuation. The study gave me the definition that stood for nearly 30 years: "I am a highly skilled technician who is provided to fill those positions above the enlisted level which are too specialized in scope to permit the effective development and continued utilization of broadly trained, branch qualified commissioned officers."

A new warrant officer program was announced in 1960. During 1966 to 1969, I was further scrutinized for career development, additional pay, Regular Army appointments, below the zone promotions and civilian schooling. By the early to middle 1970s, it was determined that I would have a Senior Warrant Officer Course, training at the basic, intermediate and advanced levels — civilian schooling opportunities were to abound.

In 1984 I was again placed on the examination table. This time I received the most comprehensive analysis ever performed in my history. The total Warrant Officer Study Group, commissioned by the Army Chief of Staff, determined what the future holds for me. The study reaffirmed the Army's continued need for my services and presented the Chief of Staff with a plan on how the future warrant officer force is to be accessed, trained, utilized, promoted and separated. Finally, after 68 years, I had my own institutional personnel management system. I am better trained, progressively utilized and given the opportunity to serve a full 30 years as a warrant officer. Congress has established another pay grade to fill an incentive gap between CW4 and retirement. For the first time in my history, I feel comfortable with the outlook of my future.

On 8 Nov 85, a significant event took place that corrected a long-standing discrepancy between the Army and the other services' warrant officers. Public Law 99-145 was signed by the President and allowed for commissioning of all services' warrant officers at permanent grade W2. Previously, only the Navy, Marine Corps and Coast Guard warrant officers received commissions. I am now at the level of prestige enjoyed for many years by warrant officers in my sister services.

The years have seen my active participation in shaping policies and programs that affect my destiny. I have my own career manager at Department of the Army who understands my uniqueness. I gained voting rights in the 1970s on promotion and selection boards. I have expanded to over 70 occupational specialties and have survived many combat missions. I have flown aircraft on the front line, sailed ships of supplies, doctored, administered, spoken, written, advised, assisted, commanded, maintained and been an integral part of every aspect of our great Army. I have provided the cohesion for many a unit. **I am the Army Warrant Officer**.

Enlisted Quartermaster Issues

LTC Edward A. Hamilton Sr., Quartermaster Enlisted Assignments Branch Chief

As the new chief of the Quartermaster Enlisted Assignments Branch, I welcome calls from command-

ers and senior noncommissioned officers (NCOs) seeking assistance, information or problem resolution. Please bear with us as the branch and PERSCOM undergo dynamic improvements in telephone systems, automation upgrades and service improvements. You will notice many changes geared toward better services to the field (Interactive Voice Response System, FAX, E-mail and written responses via PERS-GRAMS). DSN 221-2778 or (703) 325-2778. E-mail: EPQMC @ HOFFMAN-EM HI.ARMY.MIL

Special Management Duty Positions

SSG James Moore, Professional Development NCO, CMF 77

Special management duty positions are available to NCOs with a primary military occupational specialty (PMOS) of 77F, 77W and 77L. These positions consist of recruiting duty, Defense Logistics Agency (DLA) duty, Active Component/Reserve Component (AC/RC) duty, and airborne training.

Recruiting Duty

Soldiers interested in this career-enhancing job must meet the following prerequisites: be a U.S. citizen, have a high school diploma or a GED with one year of college, have a GT score of 110 or higher or a GT score of 100 and a ST score of 100, be no older than 35 years of age, have not reclassified into career management field (CMF) 77 within the past year, not be a sole parent, and meet height and weight standards of AR 600-9. SGT(P) and SSG must be Basic Noncommissioned Officer Course graduates. SSG(P) and SFC must be Advanced Noncommissioned Officer Course graduates. SGTs cannot have more than two dependents, SGTs(P) three dependents, SSGs four dependents and SFCs five dependents. The minimum accepted profile is 132211, and an applicant cannot have a shaving profile.

DLA Positions

SSGs(P), SFCs and MSGs with a PMOS of 77F or 77L are often selected for assignments to the DLA. These are nominative assignments. Selection criteria are in Section V, Chapter 8, Table 8-4, AR 614-200. Some of the documents reviewed in the nomination/selection process are DA Form 2a, DA Form 2-1, the last five NCO Evaluation Reports, and the most recent photograph. Ensure that the branch has the most current information. These positions are very valuable for soldiers desiring a joint service assignment or a petroleum career after retiring from military service.

AC/RC Positions

If interested in an AC/RC position, the applicant must be a SFC or MSG. Normally these positions are available to 77F and 77W. These positions are mandated by Congress and are high visibility jobs. These positions are very demanding. This is a three-year tour, and some locations are not close to any military installations. Soldiers must be returning from an overseas tour or have 36 to 48 months at their current stateside assignment.

Airborne Training

There is an ongoing need for airborne 77s. The applicant's packet must contain the following documents: DA Form 4187 signed by the commander, a complete airborne physical, current physical training test, a volunteer statement, and a copy of DA Form 2a and DA Form 2-1. If approved, the NCO needs to prepare to serve in an airborne unit upon completion of training if a valid position exists. Be sure the packet is complete.

Request for Assignment

Soldiers requesting an assignment need to submit a DA Form 4187 listing three assignment choices in order of preference. Soldiers assigned to the continental United States (CONUS) must have 24 months time-on-station (TOS) to request an overseas assignment and 36 to 48 months TOS for CONUS to CONUS. Soldiers assigned to a 36-month tour outside CONUS should submit their request not later than eight months before the date they are eligible for return from overseas.

For further information or to see if you qualify, call me at DSN 221-4521 or (703) 325-7394. FAX: DSN 221-4521/commercial (703) 325-4521. E-mail: MOOREJA@PENTAGON-HQDADSS.ARMY.MIL

Health and Comfort Packs: It's In There

Alphonzo Byrd

Health and Comfort Pack, General Issue, Type I. Each male and female soldier receives a bag of these first 14 items on the Type I listing.

The need for sundry supplies in deployment has been a long-standing logistical requirement. Today's Health and Comfort Packs (HCPs) are a significant improvement over previous methods of providing sundry items.

The previous Ration Supplement, Sundries Pack (RSSP) supplied 100 soldiers for 1 day in Vietnam in the 1960s and was modified for soldiers in Saudi Arabia in the 1990s. Lessons learned from these theaters indicated that the RSSPs were difficult to supply in light of changing logistical missions. Excess, waste and other problems were also identified. After reviewing lessons learned from *Operation Desert Storm* in

These remaining Type I items should be maintained for replacement or issue as needed.

Southwest Asia, the Department of the Army (DA) Deputy Chief of Staff for Logistics (DCSLOG) directed the U.S. Army Quartermaster Center and School, Army Center of Excellence, Subsistence to rework the concept for future contingencies using smaller groups and longer time periods.

The DA Subsistence Review Committee approved the HCP in June 1994, to include prepositioning of stocks. Soldiers have since used the HCPs in Somalia, Rwanda, Cuba and Haiti. The HCPs have also been placed on prepositioned ships. Feedback and surveys from soldiers using the packs have been positive.

Key Points

The HCP developers plan annual reviews to modify the pack's contents with suggestions from the field. The HCP developers see a need for information at the user level. The following are key points about the HCP:

- The intent for HCP issue is still after deployment to an area of operations as individual basic load items are consumed. The HCPs are issued on D+30, D+60 and D+90 when the Army and Air Force Exchange Service outlets are established.
- HCP, General Issue, Type I, NSN 8970-01-368-9154.
  - Supports 10 male and female soldiers for 30 days.
  - Contains 10 packs of common consumable items such as toothpaste and deodorant with an accessory pack to provide lower-usage items, such as lotions and detergents, and to replace lost or damaged durable items, such as boot laces and sewing kits.
  - HCP Type I contents: Toothbrush, toothpaste, dental floss, razor, shave foam, bar soap, foot powder, moist towelette, tissues, shampoo with conditioner, deodorant stick, ball-point pen, self-seal plastic bag and petroleum jelly.
  - HCP Type I (Supplemental or Replacement Items) contents: Lip balm, laundry detergent, moist towelette, sunscreen lotion, comb, dark sunglasses, shave gel, styptic pencil, boot laces, military sewing kit, writing tablet, 50 letter envelopes, fingernail clippers, tweezers, hair brush, plastic bandages, shoe brush, stainless steel mirror, electric shave lotion, hair dressing, hand lotion, petroleum jelly, boot/shoe polish, and instructions on use.
  - Package dimensions are about 23 3/4 inches long, 13 1/4 inches wide, 17 3/8 inches deep (3.1 cubic feet). Pack weight is about 58 pounds; cost as of April 1995 is $232.60.
- Health and Comfort Pack, Female Supplement, Type II, NSN 8970-01-368-9155.
  - Supports 10 female soldiers for 30 days.
  - Based on varied usage patterns of feminine hygiene products, individual packs are not provided. Bags are provided to allow assembly of individually wrapped components as needed for a 30-day period. Items are not prepackaged, and division of quantities by 10 would create shortages and waste. Quantities have been carefully computed. It is important to trust the logistics of supply and be mindful of fellow soldiers. Shortages of Type II sundries are directly related to overstocking by the first selectees.
  - Package dimensions are 19 5/8 inches long, 16 inches wide, 9 3/4 inches deep (1.9 cubic feet). Pack weight is approximately 20 pounds; cost as of April 1995 is $90.12.

New Doctrine

The DA DCSLOG, DALO-TSZ-B, message dated 091415Z Dec 94 authorizes a peacetime gratuitous issue of the HCP for personnel deployed to austere overseas locations for exercises in excess of 15 days where exchange support is not available. Major command authorization is required. Headquarters DA will continue funding for contingencies and operations other than war.

Army Regulation 30-7 (Operational Rations, currently being staffed for approval) will remove old doctrine for the RSSP and insert discussion of the HCP. Unit standing operating procedures should be adjusted to address a soldier's basic load of 30 days of sundry supplies to align with HCP support as planned. The HCP is a soldier program that receives constant review to provide sundry needs to the field. Forward suggestions for improvement to (804) 734-3002 or DSN 687-3005 or FAX to DSN 687-3017.

Alphonzo Byrd is a Food Program Analyst in the Army Center of Excellence, Subsistence, Operations Directorate, Menu Development Division at the U.S. Army Quartermaster Center and School, Fort Lee, Virginia.

Supply Excellence Award

Because the FY95 Chief of Staff, U.S. Army, Supply Excellence Award competition was the toughest yet, units were also identified in an honorable mention category for outstanding performance. The Vice Chief of Staff, U.S. Army presented the awards 22 Sep 95 in ceremonies at the Pentagon in Washington, DC.

The Chief of Staff, U.S. Army, Supply Excellence Award has recognized outstanding performance at the unit and organizational level since formal implementation in 1986. The program began when the Department of the Army (DA) Deputy Chief of Staff for Logistics (DCSLOG) tasked the U.S. Army Quartermaster Center and School (USAQMC&S) to assist in research and program development during the Total Army Worldwide Supply Conference in November 1984. Today, Headquarters DA, Office of the DCSLOG administers the program and develops rules for conducting competition and coordinates with the Army Defense Preparedness Association for sponsorship. As the executive agent for the program, the Commander, USAQMC&S establishes criteria and provides teams for on-site evaluations of nominated units. The Office of the Chief, U.S. Army Reserve (USAR), and the Chief, U.S. Army National Guard (ARNG) Bureau, provide evaluators as requested by the Commander, USAQMC&S.

Each participating major command many nominate one company and one battalion-sized organization in the table of distribution and allowances (TDA) and modification table of equipment (MTOE) categories. Major commands with USAR organizations may nominate two units in each of these categories. The USAR rules for competition were restructured to allow more competition among units based in the continental United States. In the ARNG, up to seven units per category may compete, allowing each of the Army National Guard Regions to compete separately.

Based on their Command Supply Discipline Programs, major commands and ARNG Regions conduct evaluations of their organizations and nominate their winners. Then the USAQMC&S sends technically qualified teams for the on-site evaluations.

The following are winners and runners-up for the 1995 competition:

Active MTOE: Company/Battery/Troop/Detachment:
Winner: 19th Signal Company, Fort Huachuca, AZ
Runner-Up: Battery A, 1st Battalion, 7th Air Defense Artillery, Kaiserslautern, Germany
Honorable Mention: 72d Ordnance Company, Pusan, Korea

Active MTOE: Battalion/Squadron/Equivalent Level:
Winner: 14th Engineer Battalion, Fort Lewis, WA
Runner-Up: 3d U.S. Infantry (The Old Guard), Fort Myers, VA
Honorable Mention: 532d Military Intelligence Battalion, Yongsan, Korea

Active TDA: Company/Battery/Troop/Detachment:
Winner: U.S. Army Garrison, Fort Riley, KS
Runner-Up: NCO Academy, Fort Richardson, AK
Honorable Mention: U.S. Army Cold Region Test Center, Fort Greely, AK

Active TDA: Battalion/Squadron/Equivalent Level:
Winner: Red River Army Depot, Texarkana, TX
Runner-Up: 10th Area Support Group, Torii Station, Okinawa, Japan
Honorable Mention: Womack Army Medical Center, Fort Bragg, NC

Reserve MTOE: Company/Battery/Troop/Detachment:
Winner: 646th Quartermaster Company, Kingwood, WV
Runner-Up: 24th Tactical Support Company, Aurora, CO
Honorable Mention: 4th Tactical Support Company (Psychological Operations), Sacramento, CA

Reserve MTOE: Battalion/Squadron/Equivalent Level:
Winner: 135th Military Intelligence Battalion, Oletha, KS
Runner-Up: Headquarters, 353d Psychological Operations Battalion, Moffett Federal Field, CA
Honorable Mention: 6th Battalion, 159th Aviation Battalion (RS), Fort Benning, GA

Reserve TDA: Company/Battery/Troop/Detachment:
Winner: Headquarters and Headquarters Company, 89th U.S. Army Reserve Command, Wichita, KS

National Guard MTOE: Company/Battery/Troop/Detachment:
Winner: Company A, 67th Support Battalion (Forward), York, NE
Runner-Up: 1454th Transportation Company, Concord, NC
Honorable Mention: Headquarters and Headquarters Detachment, Engineer Brigade, 42d Air Defense, Buffalo, NY

National Guard MTOE: Battalion/Squadron/Equivalent Level:
Winner: 2d Battalion, 157th Field Artillery, Colorado Springs, CO
Runner-Up: 107th Engineer Battalion, Ishpeming, MI
Honorable Mention: 1092d Engineer Battalion, Parkersburg, WV

National Guard TDA: Company/Battery/Troop/Detachment:
Winner: Equipment Maintenance Center, Johnston, IA
Runner-Up: 90th Troop Command, Oklahoma City, OK
Honorable Mention: Detachment 2, STARC, Elliott, MS

Meal Participation Rate: A Management Tool

Commanders are always looking for ways to ensure that their soldiers who receive subsistence-in-kind (SIK) are taking advantage of their meal entitlements. The computation of a participation rate on individual dining facilities or dining facilities installation-wide is a good tool to use. Computation is very simple. Get an accurate authorized subsist figure and compare that with the actual number of SIK diners fed from that group on a daily basis. Do not include any other category of personnel in that computation. Consider the following to encourage dining facility use:

- Expanded menus.
- Extended serving periods/convenient serving hours.
- Take-out and express service.
- Diner suggestion box.
- Effective dining facility advisory councils.
- Prevention of overcrowding and long lines.
- Nutrition awareness.

Petroleum Field Manual Revision and Consolidation

Petroleum supply operations tactics, techniques and procedures are currently covered by these six field manuals (FMs):

- FM 10-18 (Petroleum Terminal and Pipeline Operations)
- FM 10-20 (Organizational Maintenance of Military Petroleum Pipelines, Tanks and Related Equipment)
- FM 10-68 (Aircraft Refueling)
- FM 10-69 (Petroleum Supply Point Equipment and Operations)
- FM 10-70-1 (Petroleum Reference Data)
- FM 10-71 (Petroleum Tank Vehicle Operations)

These manuals contain information duplicated among themselves and other Army publications such as technical manuals. The number and scope of these manuals create long revision cycles, causing out-of-date and often contradictory information.

The Petroleum/Water Team of the Training Directorate, U.S. Army Combined Arms Support Command, reviewed these six manuals for content. The team determined that the concepts could effectively and efficiently be covered in one manual, tentatively titled FM 10-67-1 (Concepts and Equipment of Petroleum Operations). The projected fielding date of FM 10-67-1 is 2d Quarter, FY97.

This consolidation has several advantages. First and foremost, the field user will have at his fingertips the knowledge to conduct any type of petroleum operation. This will enhance petroleum unit operations, facilitate implementation of the "one fuel on the battlefield" concept, and facilitate the soldier's progression through the petroleum career field with easy access to all of the basic knowledge in the field.

This knowledge will be more current than in the past because the Training Directorate anticipates a revision cycle of no more than three to four years for FM 10-67-1. Subject areas such as safety, environmental protection, tank vehicle operations and rail car operations now in several manuals will be covered concisely in one manual. This factor alone will eliminate nearly 200 printed pages of redundant material.

No conceptual material will be eliminated solely as a result of the consolidation process. Rather, each subject area currently in the manuals (and quite a few not currently in them) will be covered completely and concisely. The Training Directorate intends for this manual to be a quality, comprehensive, easy-to-use product to make the future a reality for petroleum supply operations.

MOS Conversions

The Quartermaster Corps will experience the conversion of three military occupational specialties (MOSs) on 1 Oct 95. MOS 43E (Parachute Rigger) will convert to 92R, MOS 57F (Mortuary Affairs Specialist) will convert to 92M, and MOS 94B (Food Service Specialist) will convert to 92G. With the deletion of MOS 94B, the career management field (CMF) 94 will also be deleted. All three of these MOSs will be aligned within CMF 92. Department of the Army Circular 611-95-1, dated 28 Jun 95, identifies and details this MOS conversion action.

Unitized Group Rations (UGR)

The heart of the Army Field Feeding System-Future is the UGR. The UGR packages semiperishable line items into modules for ease in ordering and handling.

The UGR integrates components of A-, B- and T-Rations with easily prepared commercial products. The UGR is a prepackaged meal designed to feed 100 soldiers per module. It includes every aspect of a meal in one package, meaning that no more than 7 (UGR-A) rather than 33 different items will need to be or-

dered to feed 100 soldiers. The UGR has 5 breakfast and 10 lunch/dinner menus. Each menu is packed into six boxes, which make up one tier of a pallet. One tier supports 100 soldiers and one pallet provides 400 meals.

Two options will be available 1 Oct 95: the UGR-Heat and Serve (H&S) — just heat or add water, stir and serve — and the UGR-B — requires some food preparation and cooking. The final option, the UGR-A that requires refrigeration, food preparation and cooking, will be available in the near term. All menus are complete and include single service items, except for the following: UGR-A perishable items must be ordered/issued separately, milk and bread must be ordered for each meal, and menu enhancements such as salad material must be ordered. The Army has a strong focus on finding "commercial" items to replace specification or government-unique items so the menu will constantly be evolving. CAUTION: the shelf life on UGRs has been reduced to 18 months to allow for more commercial items.

For FY 96, about one-third of the Army's annual training requirement for group rations will be assembled in the UGR format (60 percent UGR-H&S and 40 percent UGR-B). All UGR-H&S and UGR-B menus will be available 1 Oct 95. The Meal Module, Tray Pack, will continue to be available in FY 96 and FY 97. Because the UGR-B replaces the Unitized B-Rations, the Unitized B-Rations will not be available after FY 96. Full conversion to the UGR will be complete by 1 Oct 98. The national stock numbers are in the January 1995 Federal Supply Catalog, C8900-Stock List.

Reports from the field indicate that commanders frequently choose line item A-Rations rather than the current Operational Rations (OPRATS). If this trend to line item A-Rations continues, the availability of the new group OPRATS (UGR-A, UGR-B, UGR-H&S) may not be supported by the industrial base. As the Army gets smaller and resources more constrained, supporting special OPRATS becomes more difficult. A strong effort is in progress to find and use commercial items to reduce dependence on an industrial base geared solely or principally toward Department of Defense requirements. However, some items are not readily replaceable at this time, for example, raw dehydrated pork chops for grilling in the field when refrigeration is not available. Until the Army finds alternatives to the military-unique items, the OPRATS industrial base must be supported. The continued use of group OPRATS in the field is essential to maintaining a high state of readiness and an industrial base.

Multi-Faith Meal, Ready-To-Eat (MRE)

The request for meals that meet kosher, halal, or vegetarian requirements in the field feeding program has been significant. The demand had been satisfied by the authorization for local purchase of such meals. Effective immediately, requisitions for the Multi-Faith MRE are available through the normal supply process.

The Multi-Faith MRE, NSN 8970-01-392-0213, is a box of 12 MREs costing $62.55 as listed in the Federal Supply Catalog. The menus are cheese tortellini and pasta with vegetables at six each per box. The box purchases of Multi-Faith MREs will be the norm for about three years until these meals are integrated in the normal MRE box pack. At that time, 2 Multi-Faith Meals will be in every box with a variety of 12.

HEMTT Maintenance Warning

The mounting springs for the heavy expanded mobility tactical truck (HEMTT) M978 tanker can compress over time and take on a set height that is less than the original height. If the following semi-annual preventive maintenance checks and services (PMCS) tasks in TM 9-2320-279-20, Change 2, page 2-46 are not followed, the tanks will crack. **NOTE:** Before checking for the following measurements, take a hammer and tap the bolts upward to make certain the bolts and springs are seated properly.

- Item 13a. Springs should be checked for a height of 3 1/2 inches.
- Item 13b. If the top spring is 3 1/2 inches and there is free play in the bolt, remove the bolt and measure the bottom spring.
- Item 13c. If both springs are greater than 3 1/2 inches, check that the rubber mount is 1-inch thick.

If the springs do not meet any of those criteria, that HEMTT M978 tanker is not mission capable. If a vehicle does not meet any of the PMCS criteria, the springs (NSN 5360-01-157-5046) or rubber mount (NSN 2590-01-155-2398) need replacement. This PMCS must be performed semiannually on these vehicles to avoid cracks in tankers due to vertical/lateral movement of the tank in relation to the vehicle's chassis because the springs have compressed below 3 1/2 inches in height.

Unit commanders can contact the local Tank Automotive Armaments Command (TACOM) logistics assistance representative (LAR) or the state surface maintenance manager for assistance. To locate a TACOM LAR for the continental United States, call DSN 367-6204/6293, for Germany call DSN 370-6128/7436 and for Korea call DSN 723-7519/6479.

Directory – Points of Contact

U.S. Army Quartermaster Center and School

Fort Lee DSN prefixes: 687-xxxx or 539-xxxx
Commercial prefixes: (804) 734-xxxx or (804) 765-xxxx

The Quartermaster General (ATSM-CG)
MG Robert K. Guest 734-3458

Assistant Commandant (ATSM-AC)
COL Gary L. Juskowiak 734-3759

Command Sergeant Major (ATSM-CSM)
CSM Ricky A. Vernon 734-3248

23d Quartermaster Brigade (ATSM-TPC)
COL Raymond L. Rodon 734-4644

49th Quartermaster Group (Petroleum) (AFFL-G)
COL D. Lyle Hohnstine 734-6026

Chief, Office of the Quartermaster General (ATSM-QMG)
LTC David M. Merritt 734-4237

Director of Instruction (ATSM-DOI)
Dr. William L. Kelley 734-3215

Airborne and Field Services (ATSM-ABN-FS)
LTC Gerald L. Jensen 734-5370

Army Center of Excellence, Subsistence (ATSM-CES)
LTC Douglas M. Swingen 734-3007

Logistics Training Department (ATSM-LTD)
LTC Frank W. Miller 734-3195

Mortuary Affairs Center (ATSM-MA)
Tom D. Bourlier 734-3831

Petroleum and Water (ATSM-PWD)
LTC Michael D. Hunt 734-2820

Noncommissioned Officer Academy (ATSM-SGA)
CSM Norbert L. Schouviller 765-2066

Quartermaster Total Force Integration Officer (ATSM-DOI)
LTC Steven H. Warren 734-3574

MAILING ADDRESS:
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USAQMCS OQMG
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FORT LEE VA 23801-1601

TELEPHONE:
DSN 687-4382
Commercial (804) 734-4382
FAX (804) 734-3343

UNIT DISTRIBUTION:
Report delivery problems, changes of address or unit designation to Martha B. Guzman at DSN: 687-4382. Requests to be added to direct distribution should be in the form of a letter.

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 3 1/2-inch disk in most common word processing software as well as ASCII format (Microsoft Word for Windows preferred). 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 Office of the Quartermaster General 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.

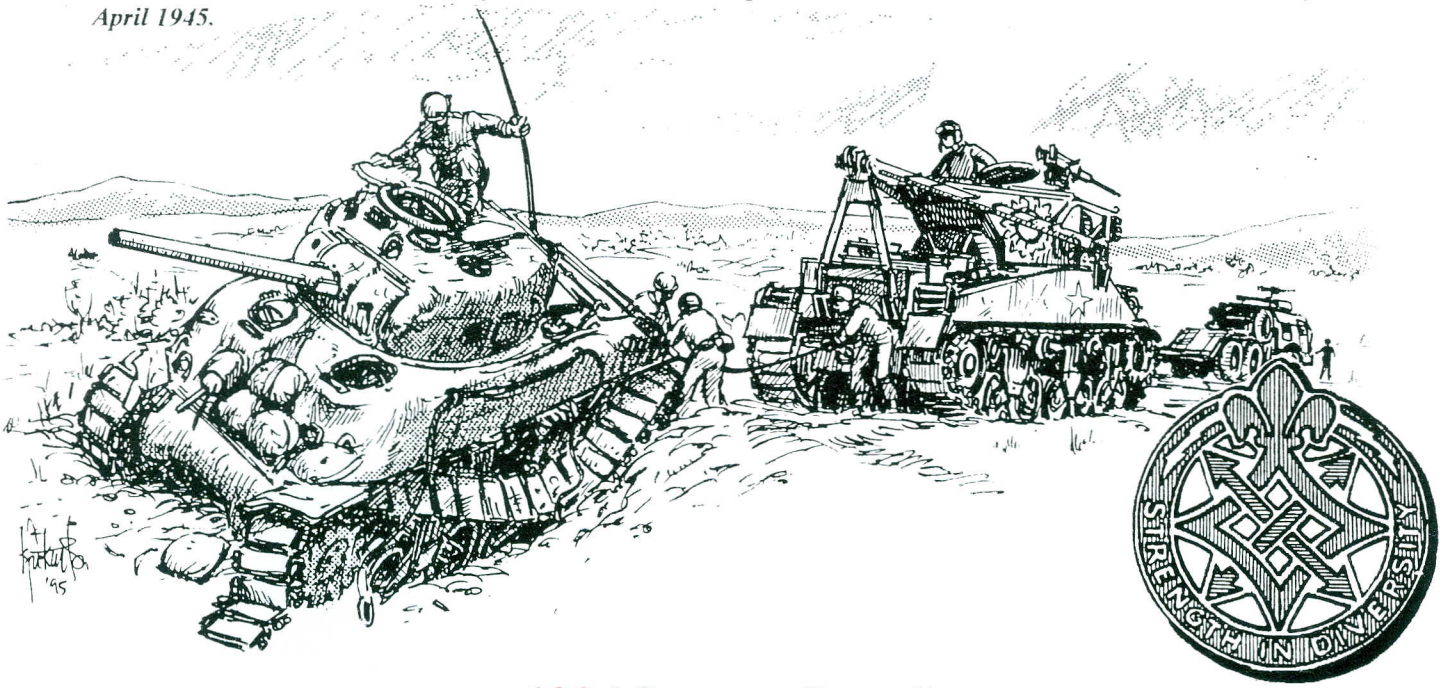
SUBSCRIPTIONS:
Individual subscriptions are available from the Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954 at the rate of $10.00 per year ($12.50 foreign). Telephone credit card orders can be made 8 a.m. to 4 p.m., Eastern time, to (202) 512-1800. Orders can be sent by FAX 24 hours a day to (202) 512-2250.

Are You Interested in Training With Industry?

Through the Training With Industry (TWI) program, Quartermaster officers and warrant officers are placed in management positions with Fortune 500 companies such as Exxon Corp.; Wal-Mart Stores Inc.; Marriott Corp.; Sears, Roebuck & Co.; Sun Company, Inc.; and SuperValu Inc. The TWI training entails a one-year tour and a three-year commitment to the Army. These programs benefit everyone, but only work with support by senior leadership. Leaders can optimize success by identifying and programming qualified officers to fill these quotas.

This fiscal year will mark the first time that Quartermaster warrant officers will again participate in the TWI program since the early 1980s. Beginning in August 1995, a 920B (Supply Systems Technician) joined Sears and a 922A (Food Service Technician) is working at Marriott. For more information about Quartermasters in TWI, contact CW5 John F. Zimmerman at DSN 687-3702 or CPT Mark Hamilton at DSN 687-3441, both in the Office of the Quartermaster General.

A 193d Ordnance Battalion recovery team retrieves a damaged Sherman tank somewhere in Northern France, April 1945.



193d Support Battalion

Constituted 18 October 1927 in the Regular Army as an element of the 7th Motor Repair Battalion.

Redesignated 1 May 1936 as the 3d Battalion, 56th Quartermaster Regiment.

Activated 9 February 1941 - 2 September 1942 with Headquarters at Fort Leonard Wood, Missouri.

Converted and redesignated 1 August 1942 as the 3d Battalion, 56th Ordnance Heavy Maintenance Regiment.

Battalion broken up 30 September 1942 and its elements reorganized and redesignated as follows:

Headquarters and Headquarters Detachment as Headquarters and Headquarters Detachment, 193d Ordnance Heavy Maintenance Battalion.

(Company I as the 335th Ordnance Motor Transport Company: Companies K, L and M as the 893d, 894th and 895th Ordnance Heavy Maintenance Companies, respectively - hereafter separate lineages.)

Redesignated 17 May 1943 as Headquarters and Headquarters Detachment, 193d Ordnance Battalion.

Inactivated 25 June 1946 in France.

Activated 10 June 1953 in France.

Inactivated 1 December 1954 in France.

Activated 24 March 1962 in Germany.

Inactivated 25 December 1964 in Germany.

Converted and redesignated 21 December 1977 as Headquarters and Headquarters Detachment, 193d Support Battalion, assigned to the 193d Infantry Brigade, and activated in Panama.

Reorganized and redesignated 16 April 1985 as Headquarters and Headquarters Company, 193d Support Battalion (organic elements concurrently constituted and activated).

Inactivated 15 October 1995 in Panama.

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