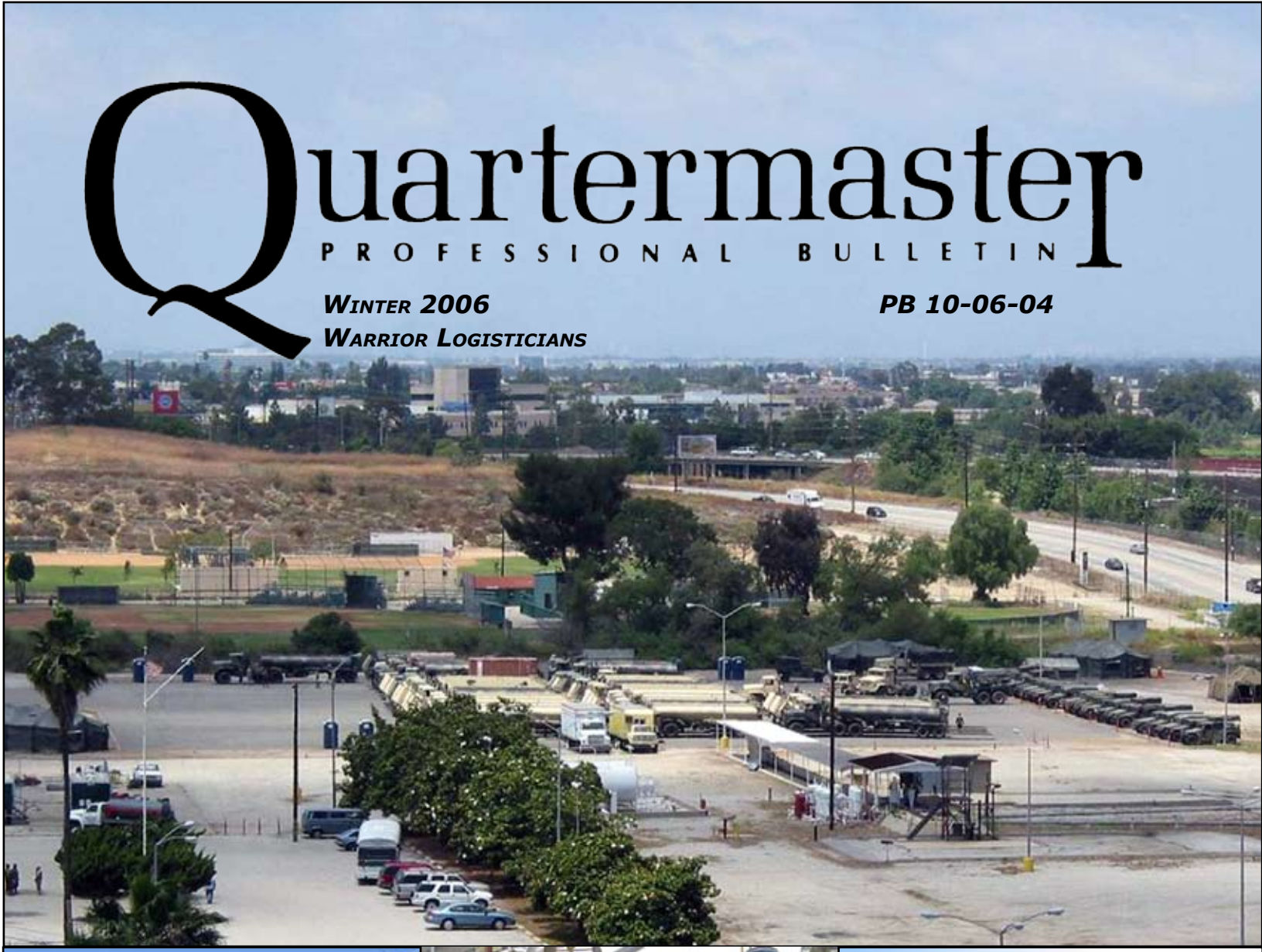
Quartermaster

PROFESSIONAL BULLETIN

Winter 2006 *PB 10-06-04*

Warrior Logisticians



Quartermaster Liquid Logistics Exercise, page 31.

From the Quartermaster General

Brigadier General
Mark A. Bellini

The Quartermaster School's proud motto, "*Famam Extendimus Factis* – We Spread Our Fame by Our Deeds," has been validated many times over. This year marks the 97th Anniversary of the US Army Quartermaster School founded at Philadelphia's Schuylkill Arsenal on March 10, 1910. Well over a half million highly trained Quartermaster Soldiers and civilians have graduated during the intervening decades. Their service to the nation, especially in times of war, has been carried out with the utmost courage and competence.

The Quartermaster School continues to train more than 25,000 Soldiers, Marines, Airmen, Seaman, and civilians annually. On any given day there are more than 4,000 Soldiers and other members of the Department of Defense training at the Quartermaster School, making it one of the US Army Training and Doctrine Command's largest, most active, and effective training institutions.

Methods change, but not the Quartermaster School's over arching goals and priorities. Our number one priority is to train *technically competent* and *tactically proficient* Soldiers – whose supply and service capabilities are essential to the joint and combined fights we face today. Our immediate objectives are to ensure that all graduates of this institution have a firm handle on the core competencies and military occupational speciality-related technical skills for which they are being trained and that they meet the expectations of commanders preparing for combat operations. However, time, money, and resources are never unlimited and we strive to achieve a necessary balance. You can help us achieve that balance and continue to meet the Army needs by keeping in touch and communicating those needs forthrightly.

It is my policy to *listen* and to respond. If you have specific requests, comments, or observations the training base should hear, let us know. If there are "lessons learned", especially in theater, that you think should be incorporated (if only in terms of professional development), let us know that as well. Additionally, when we send surveys to the field we greatly appreciate your input. Bottom line: As the Quartermaster School moves ever closer to celebrating its first centennial in 2010, we want to remain faithful to the mission at hand by being ready, relevant, and responsive to your needs and by producing the best Quartermaster Soldiers possible.

I trust that you will read and enjoy the articles in this issue of the *Quartermaster Professional Bulletin*. Of particular interest is the article on the 475th Quartermaster Group, US Army Reserve, as it continues to coordinate the Reserve Component's largest annual training exercise. Also, there is the unique perspective of a Quartermaster company that participated in the first C-17 heavy airdrop into the South Pole, Antarctica. The food service 2007 Philip A. Connelly Award Winners for Excellence in dining facilities and field kitchens are also announced in this issue. I invite you to contribute by sending your articles to the *Quartermaster Professional Bulletin*. You may contact the Bulletin staff directly at (804) 734-4382/4383 (DSN 687), or electronic mail: george.dunn2@us.army.mil. You may also contact us through our web site at www.Quartermaster.us.army.mil.

As always I encourage your comments and feedback. Please call me at (804) 734-3458 (DSN 687) or on my blackberry at (804) 502-0923. My FAX number is (804) 734-3174 (DSN 687). My e-mail address is mark.bellini@us.army.mil. I look forward to hearing from you. Thanks again for what you have done and continue to do for our Army and our Nation.

Quartermaster
PROFESSIONAL BULLETIN

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OUTSIDE FRONT COVER: Photos representing the 475th Quartermaster Group (Petroleum and Water) Quartermaster Liquid Logistics Exercise ((QLLEX)) The Article on page 31 discusses the exercise, which is the largest annual Reserve Component training exercise. (Design by George Dunn)

OUTSIDE BACK COVER: A view from the sky of the first Heavy Airdrop from a C-17 aircraft into Antarctica. Article on page 27. (Design by George Dunn).

INSIDE BACK COVER: The full pages on battalion-size units that Keith K. Fukumitsu, Quartermaster, has researched and illustrated for each edition since 1991 are archived on the Quartermaster Home Page under Professional Bulletin, Quartermaster Unit Lineages at www.Quartermaster.army.mil.

Instructor/Drill Sergeant Pilot Program

By Command Sergeant Major
Jose L. Silva

It's not easy being a drill sergeant. The idea of having drill sergeants began in 1962. Drill sergeant training programs began in 1963 at Fort Jackson, South Carolina and Fort Gordon, Georgia; and in 1964 at Fort Leonard Wood, Missouri. The success of these drill sergeant programs resulted in the adoption of a concept that still provides outstanding results today.

In April 2006, the US Army Quartermaster Center and School (QMC&S) volunteered for a US Army Training and Doctrine Command (TRADOC) pilot program that explored the possibilities of utilizing noncommissioned officers (NCOs) as drill sergeants without the drill sergeant skill identifier. In an effort to augment NCOs in US Army Forces Command units and in support of the transformation of brigade combat teams, TRADOC asked, "What if drill sergeants were removed from advanced individual training (AIT) schoolhouses?" The idea of removing drill sergeants from AIT schoolhouses might seem extreme to some, but keep in mind that this is an action with the goal of supporting the global war on terrorism.

After some senior-level discussions, the QMC&S decided to be among the first to test the pilot program. Though there would be challenges, taking the lead would be appropriate since the Quartermaster Corps is the second largest branch in the Army with a total of 121,120 authorizations (including National Guard and Reserve). The QMC&S has an annual AIT student load of about 20,000 and an average daily load between 3,000 and 4,000 students.

The student load has already lead to changes in training strategies for some military occupational specialties. For example, the 92A and 92Y AIT courses are running a total of 59 classes (average 30 students per class), double shift (early/late shifts) to develop the students' technical and tactical expertise. Our field training exercises can train more than 400 Soldiers a week for 48 weeks a year at Fort Lee and Fort Pickett, Virginia. With the possibility of human resource restructuring taking place in our AIT environment, the QMC&S wanted to be the first to experience the consequences. Pilot programs are good because if something goes wrong, it is called feedback rather than failure. It allows for the opportunity to make corrections. Clear mission and vision statements are critical elements for a successful organization, especially when plowing new territory. Everyone has a key role to play.

Bravo and Tango Companies (food service training companies) from the 266th Quartermaster Battalion, 23d Quartermaster Brigade, were selected for the program. Drill sergeants moved from the company to the platform and platform instructors moved to the companies as drill sergeants. In order to increase the chances of success, a "pilot within the pilot" program was created to increase the flexibility of having two courses of action. Bravo Company had 4 platoon sergeants with 3 squad leaders/ instructors per platoon, for a total of 16 NCOs.

Drill sergeants still play an important role in the daily lives of students at the US Army Quartermaster Center and School, Fort Lee, Virginia.

Tango Company had four platoon sergeants with two instructors per Platoon. Two additional NCOs were required to fulfill armorer and operations functions, for a total of 14 NCOs. Tango Company's AIT Soldiers would serve as squad leaders. These instructors inherited the entire package: the soldierization process, technical/tactical training, counseling, and mentoring/role modeling. From day one until the Soldiers graduated, they carried a glass ball that could not be dropped.

The fate of the drill sergeants program is still undecided. However, upon orders from TRADOC, the QMC&S stands ready to execute the program. The drill sergeants and instructors involved in the program are highly skilled and trained. When it comes to seeing the mission through, NCOs will always make it happen.

CSM Jose L. Silva is the 8th Regimental Command Sergeant Major for the Quartermaster Corps. He deployed to Uzbekistan for Operation Enduring Freedom as the 507th Logistics Task Force CSM and also served as the first Camp Sergeant Major for Camp Stronghold Freedom in Karshi-Khanabad. His responsibilities took him to Bagram, Mazare-Shariff, and Kabul. Then as the CSM for the 10th Division Support Command, 10th Mountain Division, Fort Drum, New York, he redeployed to Afghanistan during Operation Enduring Freedom IV to serve as the Joint Logistics Center CSM before coming to the US Army Quartermaster Center and School, Fort Lee, Virginia. CSM Silva enlisted in the Army in July 1982 as an 11B (Infantryman) in the 82d Airborne Division. He became a Petroleum Supply Specialist in July 1986.

Warrant Officer Education System Moving Forward

By Chief Warrant Officer Five
Michael E. Toter

In the Autumn 2006 edition of the *Quartermaster Professional Bulletin,* I mentioned that the focus of our office is shifting ever so slightly from recruiting to education. We want to continue selecting the best and brightest to fill our jobs. Therefore, recruiting and education must always be a priority. It will certainly continue to be a challenge. The Quartermaster Warrant Officer Corps will only stay strong, healthy, and relevant if warrant officers make recruiting and education their top priority. That makes each of us a steward of the Corps' future.

The Department of the Army officially eliminated the individual Warrant Officer Education System (WOES) in 2006. Since that time, warrant officers have been tasked to perform duties in many areas without receiving traditional training. They lack some key skills and are being forced to learn them on the job. Based on the Army Training Leadership and Development Program (ATLDP) study, many significant changes are coming to the warrant officer training arena. The ATLDP study indicated that many of the required skills for warrant officers are found in Officer Candidate School (OCS), Basic Officer Leadership Course II (BOLC II), Intermediate Level Education (ILE), and the Command and General Staff College (CGSC).

I, along with 37 senior warrant officers representing all branches, participated in a warrant officer education redesign working group from 6-10 November 2006, hosted by the Center for Army Leadership at Fort Leavenworth, Kansas. The working group conducted an analysis of initial military training and staff courses to develop a holistic comprehensive warrant officer education strategy. The analysis included courses of action that would support all common core and technical/functional training requirements. The results of the working group were briefed to the Commander, US Army Combined Arms Center in December 2006 and to the Commander, US Army Training and Doctrine Command in January 2007.

There are still many unanswered questions about how the former WOES training might be integrated with the key required elements found in the current officer courses. One course of action discussed was the possibility of total integration of warrant officer training with the officer corps. Would warrant officers attend OCS, ILE, and CGSC? While this total integration concept was considered as a possibility, it was one of those courses of action that received very little support from the senior branch officers nor the senior warrant officers.

The recommendation in all areas was to keep warrant officers and branch officers separate and to take those required skill sets from OCS, ILE, and CGSC and apply them to warrant officer development as needed. Therefore, the new warrant officer training process remains a work in progress. The briefing may be viewed at the Quartermaster Warrant Officer Proponent web site at www.quartermaster.army.mil/oqmg/warrant_officer_proponency/news.htm.

CW5 Michael E. Toter is currently assigned to the Office of the Quartermaster General, US Army Quartermaster Center and School (QMC&S), Fort Lee, Virginia, as the Quartermaster Regimental Chief Warrant Officer/Quartermaster Warrant Officer Proponent. He has served in a variety of assignments worldwide, these include: Logistics Operations Officer, North American Aerospace Command/US Northern Command, Peterson Air Force Base, Colorado and S4, Joint Prisoners of War/Missing in Action Accounting Command, Hickam Air Force Base, Hawaii. Also, he served as Division Property Book Officer, 10th Mountain Division, Fort Drum, New York; Brigade Property Book Officer, 194th Armored Brigade, Fort Knox, Kentucky; Instructor, QMC&S, Fort Lee; and Senior Evaluator, Supply Excellence Award Program, Fort Lee. He has completed every level of the Warrant Officer Education System and holds a baccalaureate degree from the University of Maryland.

First Reserve Component Quartermaster Warrant Officer Proponent Manager

By Chief Warrant Officer Five
David A. Dickson

I take this opportunity to introduce myself as the first Reserve Component Quartermaster Warrant Officer Proponent Manager. This position was created to address the unique needs and challenges of the Reserve Component, both US Army Reserve and Army National Guard, Quartermaster warrant officers. My duties include screening Quartermaster warrant officer application packets, establishing mentorship programs, and reviewing training doctrine for new logistics technologies and policies being adopted by the Army.

Fighting the war on terrorism while simultaneously transforming to a modular force has presented challenges unlike any seen in the history of the Army. The US Army is an organization based on deep rooted traditions. When faced with unique challenges brought on by unconventional situations such as asymmetric warfare and agile transformation, it becomes necessary to search for unconventional solutions. With your assistance, I hope to find and implement solutions to resolve the challenges that we are facing today.

My initial focus will be on three areas: recruitment/accession of Reserve Component Quartermaster warrant officers, Reserve Component training issues, and mentorship programs. The strength of the Quartermaster Warrant Officer Corps is totally dependent on the competency of those who fill its ranks. It is imperative that we seek out highly skilled Soldiers and actively recruit them for the Quartermaster Warrant Officer Corps. The second challenge is providing required training while keeping in mind that they are Citizen-Soldiers. Lastly, the senior warrants must take on the task of promoting the technical competence of the junior warrants through active and comprehensive mentorship programs.

I challenge you to take the time to identify the critical issues facing the Quartermaster Warrant Officer Corps. I look forward to hearing from all Soldiers, Army civilians, and military contractors involved in or supported by Army logistics. Together we can have a positive impact on the future of Army logistics. I can be reached at (804) 734-3475 (DSN 687) or e-mail to david.dickson@us.army.mil.

CW5 David A. Dickson is currently assigned to the Office of the Quartermaster General, US Army Quartermaster Center and School, Fort Lee, Virginia, as the Reserve Component Quartermaster Warrant Officer Proponent Manager. He is Active Guard/Reserve with 32 years of military experience and has served in a variety of assignments worldwide. CW5 Dickson has completed the Warrant Officer Senior Staff Course, holds a masters of science in management information systems from Bowie State University and masters certifications in both applied project management and information systems/ information technology project management from Villanova University.

Efficient Supply Management: SARSS Does More Than Order Parts

How to Successfully Integrate SSA Reports into Your Support Operations

By CW3 Timothy N. McCarter Sr

"We were working from a moderately improved area in the middle of Baghdad with no overhead cover for the supply support activity (SSA). All of the Class I (food, rations, and water), Class II (individual equipment and tools), Class III(P) (packaged petroleum products), Class IV (construction materials), Class VI (personal items), and Class X (miscellaneous supplies), as well as bottled water, were consolidated into the Class IX (repair parts) operation. We were used to having additional work whenever we deployed, but this was harder. The lines of communication were longer and the resupply points were farther apart than normal; not to mention the constant danger of having to transport our own supplies through Baghdad because the main support battalion didn't have enough transportation assets. The supply system was unpredictable. We had Class VIII (medical supplies) and Class VII (major end items) coming through my SSA. My 92A (Automated Logistics Specialist) Soldiers handled the mission, although we were only staffed to handle the Class IX operation. We worked in the hot sun in Iraq to complete our regular Class IX functions and then processed the additional supplies we were receiving. How did we track what the customers requested versus what actually came in? We sent reports of all the shipment manifests, on-hand assets, and capabilities to our support operations."
– Supply Systems Technician, 3d Infantry Division, Operation Iraqi Freedom I

Reporting Assets is Critical to Success

The stories are harrowing and abundant. Units operating during the major combat phases of *Operation Iraqi Freedom* complained that resupply operations and other logistical functions were too slow, too few, and too far between. Rapidly advancing units conducted battlefield damage assessment and repair, or quick fixes, in order to keep their equipment operational because of the high zero balance levels of SSA supplies drawn from the Army prepositioned stocks. The supplies ordered after the conclusion of major combat actions created an enormous swell at the Kuwait Theater Distribution Center (TDC), located near Camp Doha. It became critical to mission success for the supply managers to know and adhere to the command-directed priorities of support. Supplies surged then trickled intermittently from the TDC to the forward supply activities in Iraq due to the conflicting transportation requirements of the units in the theater of operations.

Today, units conducting mission readiness exercises at the National Training Center (NTC), Fort Irwin, California, state that the NTC supply system provides excellent support for the period of their training, but that it is also unrealistically supportive. The NTC has over 11,000 lines of repair parts in its main direct support (DS) supply activity on the installation. It has the ability to expedite shipments from the nearby Defense Distribution Depot San Joaquin, California, which has facilities in Tracy and Lathrop, California. The NTC supply resources allow units to train in the harsh Mojave Desert while maintaining combat systems as long as their maintenance program is effective. However, in the Iraq theater, and in most units, immediately available supply stocks are not nearly so robust. Some supply activities in the Iraq theater of operation maintain an inventory of over 4,000 lines on their authorized stockage lists (ASL) which is a major difference from the 800 line ASL of the velocity management-era SSA.

It is evident that the transformation of Army divisions to modular combat brigades has improved the agility, lethality, and velocity of the world's most powerful combat force. Despite the superb improvements in their automation and communication architecture, the supply activities that support the brigades remain the lumbering leviathans on the playing field of transformation.

Forward-deployed brigade support battalions (BSB) conducting sustainment operations are a valuable, but often untapped, resource for ensuring that the supply system is not the defective cog in their maintenance and supply support machine. The Standard Army Retail Supply System-Level 1 (SARSS-1) at the BSB SSA is the system-of-record for all automated retail supply transactions. The stock control section of the SSA manages the SARSS-1 processes, maintains output reports, performs research, and other functions to ensure customer satisfaction. These functions provide the SSA accountable officer with important data to gauge the success of the supply system. Additionally, they provide the support operations officer (SPO) with an impressive array of logistical tools to ensure the effectiveness of the brigade's maintenance program.

Customer Reconciliation

The retail-level SSA reconciliation process is not new. It is a part of the Standard Army Validation and Reconciliation (SAVAR) process described in the Department of the Army Pamphlet 710-2-2, paragraph 19-4. It is defined as "a standard procedure using automated systems for validating material obligations with the user and reconciling the due in/due out records maintained within the supply chain. SSAs are required to validate all requisitions not previously validated by the customer unit and reconcile all requisitions sent to the next higher supply source each month." Most brigades training at the NTC perform customer reconciliations properly and understand the importance of validating their repair parts requests. However, units often determine their document match rate incorrectly or return their reconciliation report too late for the SSA to address any problems effectively.

The customer reconciliation report can be printed for an individual unit or for every supported unit of the SSA in the Department of Defense Activity Address Code sequence. The report can be downloaded to diskette and/or e-mailed to the customer unit. It is important to ensure that the customers understand the reconciliation computation process. The computation formula is relatively simple, but is often done incorrectly. The variables used to figure the reconciliation match rate are:

(A) number of items on the reconciliation list, but not on the unit document register
(B) number of items on the unit document register, but not on the reconciliation list
(C) number of items on the reconciliation list

Divide C by the sum of A, B, and C, then multiply the answer by 100 for the percentage, e.g. (C / (A + B + C)) x 100.

Example:
(A) number of items on the reconciliation list, but not on the unit document register = 5
(B) number of items on the unit document register, but not on the reconciliation list = 10
(C) number of items on the reconciliation list = 85

In this example, the formula calculation is:
(85 / (5 + 10 + 85)) x 100 =
(85 / 100) x 100 =
.85 x 100 = 85 percent

The SAVAR process mandates a monthly reconciliation from the SSA to customer units. The SSA can print a customer's reconciliation report as often as needed to help the unit validate or reconcile its supply requests. The customer unit must correctly figure the match rate, the BSB SPO must accurately track the report, and the brigade executive officer must enforce compliance with the published suspense date in order for the report to be effective. Units reporting a match

rate less than 95 percent should schedule an appointment with the SSA stock control section for a face-to-face reconciliation in order to identify the cause of the unmatched documents. In the presence of these checks and remedies the customer reconciliation report is an excellent tool for every unit ordering supplies. It is especially useful to the SPO to help assess the Class IX support system.

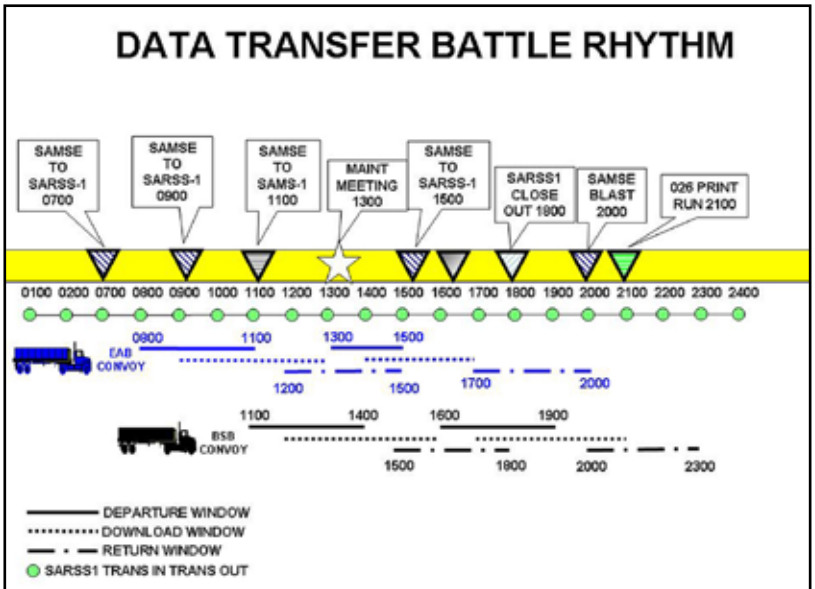
Requisition Status and Data Transfer Tracking

A recurring complaint at the NTC from units practicing their automated supply data transfers to the SARSS-1, using their unit-level automated ordering systems (Unit Level Logistics System or Standard Army Maintenance System-Enhanced (SAMS-E)) via file transfer protocol (e.g. internet), is the lack of updated statuses returned to them from the SARSS-1. The SARSS-1 produces a status record of every request that a supported unit submits. Units often report connectivity issues, computer operator learning curves, or hardware problems with the very small aperture terminal satellite as the reason for not receiving the status of their requests from SARSS-1. There is usually a software, configuration, or connectivity problem preventing the transfer of the status record.

The SARSS-1 maintains a record of every data transfer that comes into or goes out of the system on transaction logs. One such report, the queue-in log (QINLOG), can tell the SARSS operator from which units and when the system received data. Another report, the queue-out (QOUT) log, lists the data transfer batches, which includes the status batches that the SARSS has attempted to send, a date-time group, and whether the attempted send was successful. The SSA stock control can create an Excel spreadsheet that the SPO can use to track units sending data (supply requests and follow-ups) to and retrieving data from the SSA. The BSB SPO should develop and enforce a data transfer battle rhythm that ensures the units requested repair parts and receive the status of those requests prior to sending the maintenance update data to the Standard Army Maintenance System-Level 1 (SAMS-1).

The status turn-around time for most requests is usually several hours. Receiving a request status is very important to ensure that the data sent to the SAMS-Level 2 lists the current and relevant status on the deadline report it generates (commonly called the 026 Report). The SPO uses the 026 Report to determine the brigade's operational readiness rate, and ultimately the brigade's combat power percentage, so it must be accurate.

The QOUT process is a tool often overlooked by supply technicians. The QOUT is not a report but an actual listing displayed on the SARSS monitor showing batches of data that are awaiting transfer in the system. Using a printout from the SARSS screen of the QOUT can tell the SPO which units have status batches waiting in the SARSS for the unit to retrieve. The SARSS-1 system allows the operators to produce a printout of the screen using the F12 function key. The SPO can use the printout at the brigade's maintenance meeting to inform maintenance managers from the supported battalions whether they are simply not retrieving status records from the SARSS-1 or if they



An example of a good logistics and data transfer battle rhythm

have no status records present in the system. The former situation is usually related to connectivity and the latter typically indicates a procedural problem. However, either situation may exist in cases where the SAMS-E operator needs additional training.

Non-Automated Asset Reporting

In 1999, Army units began adapting to the vision of former Secretary of the Army, Louis Caldera, and then Chief of Staff of the Army, General Eric Shinseki, for the modular brigade transformation and the creation of the Stryker brigades. A rapid action revision of the Army Regulation (AR) 710-2 (Supply Policy Below the National Level), released in February 2004, implemented a change throughout the regulation to rename the "supply support activity (SSA)" to the "forward distribution point (FDP)". The change was a sweeping statement of the intended transformation of the Army's supply support organizations to more inclusive multiple-commodity distribution points. The short-lived title was more than a mere tactical naming convention. The advent of the Army's modular transformation was a sweeping change throughout the combat service support (CSS) community. Tactical commanders envisioned the advantages to be gained by the centralized management at the FDP of the different commodities required to sustain a deployed brigade.

CLASS III(P)

NOUN	NSN	AUTH	OH
BRAKE FLUID	9150-01-102-9455	20 GL	18 GL
HYD FLUID	9150-01-111-6254	35 GL	31 GL
TRANS FLUID	9150-00-843-1636	25 GL	25 GL
15/40 LUBE OIL	9150-01-438-6076	30 QT	75 QT
GREASE SILCONE	9150-00-257-5356	35 TUBES	34 TUBES
ANTIFREEZE	6850-01-BLK-9001	30 CANS	30 CANS
CLEANING SOLVENT	6850-00-274-5421	30 CANS	20 CANS

CLASS IV

NOUN	Contingency Stocks O/H	Requested	Issued	On Order
Concertina Wire (Rolls)	319	0	161	0
Barbed Wire (Rolls)	73	0	10	0
Short Picketts EA	1619	0	202	0
Long Pickets EA	2407	0	808	0
4x2 Timber EA	149	0	0	0
4X4 Timbers EA	577	0	9	0
4X8 Plywood EA	3	0	15	0
Sandbags (100/bundle)	4,800	0	4000	0

OCIE

Noun	AUTH	OH	ISSUED	REMARKS
KEVLARS				
S	2	2		
M	4	0	4	2/14 INF
L	4	2	2	2/14 INF
CANTEEN	5	5		
	5	5		
PARKA TOP				
S	2	2		
M	2	2		
L	2	2		
PARKA BOTTOMS				
S	2	2		
M	2	2		
L	2	2		
SLEEPING BAGS	5	2	3	2/15 FA,210TH
AMMO CANS	6	6		
GOGGLES	10	0	10	2/14 INF 210TH BSB

AS OF 1000 HRS

An example of the SSA non-automated stock accounting report

In July 2005, another revision to AR 710-2 renamed the "forward distribution point" back to "supply support activity". The step backwards seemed to imply that the previous change was perhaps too ambitious for the transforming Army as manning shortages in a number of areas became apparent. The rescission did little to slow or stop the momentum of the CSS transformation. The consolidated SSA is a reminder that the Army's march towards operational efficiency is not a temporary trend. In fact, the push for much of the transformation initiative comes from

the need for an acceleration of the Army's laborious, and at times drawn out, heavy division deployment process.

The adage that "supply is supply is supply" means that most commodities can be managed in a similar manner by a single source. This thinking, manifested during *Operation Iraqi Freedom,* soon showed that supporting multifunctional units in the Iraq theater of operation, with items segregated by commodity, would be inadequate. Supply activities reorganized and deployed as multiple-commodity distribution points instead of the old supply companies as the problems were identified. The maintenance company Class IX SSA and the distribution company Class II SSA were consolidated into one supply activity in the distribution company. The consolidation infers additional reporting requirements for the SSA accountable officer.

The Class IX and, in some cases, Class II stocks are accounted for by the SARSS-1 system. In a forward-deployed area the SSA must maintain manual accounting for any stocks stored which are not loaded into the SARSS database. This includes the Class III(P), Class IV, Class VI, and Class X. These assets must be managed in a forward-deployed environment using a spreadsheet or some other document. The quantities available at the SSA must be reported to the SPO accurately and consistently to ensure that an excess stock condition does not occur.

The trend for BSB customer units training at the NTC, who report their DS asset status and requirements via a unit or forward operating base logistics status report, is to repeatedly report a shortage of a commodity until they receive the items needed. The SPO requisitions and tracks the required items from the supply source. However, without accurate accounting of the stocks received at the brigade support area, shipment manifests or manually-prepared spreadsheets, double-ordering and excess stocks may occur. Maintaining excess stocks requires additional man-hours and prevents those assets from being utilized by another unit that requires them. The SSA accountable officer reports the quantities of non-automated stocks on-hand to the SPO, who informs the SSA of the disposition of the commodities. Good communication between the SPO and the SSA is critical for the data reporting process facilitating logistics synchronization and efficient, expeditious supply distribution.

Implementing effective and realistic CSS systems that result in synchronized logistics distribution to customer units is the goal of the SPO. The Army continues to field new computer systems that enhance the logisticians' ability to see the logistics common operating picture. The best logisticians understand that many of their greatest tools for managing commodities across the battlefield already exist and they utilize them effectively. The SSA is an excellent resource for data transfer, non-automated stocks, and customer request tracking.

CW3 Timothy N. McCarter Sr. is the Class IX Distribution Observer/Controller with the Goldminer Team at the National Training Center, Operations Group, Fort Irwin, California. He also works with the Support Operations and Brigade Maintenance Trainers to help rotational units improve their logistics and maintenance programs. He served with the 3d Infantry Division during Operation Iraqi Freedom in the General Supply Office. He has managed many divisional and brigade supply support activities. CW3 McCarter has completed the Warrant Officer Advanced Course, the Joint Course on Logistics, and the Support Operations Course. He has a degree in distribution logistics from Coastline College and is currently completing a degree in business administration with the University of Maryland.

The Logistics Information Warehouse: A Great Tool Kit for Army Logisticians

By 1LT Rolando Rodriguez

In 2005, the US Army Materiel Command Logistics Support Activity (LOGSA) created the Logistics Information Warehouse (LIW), which became operational in 2006. LIW is more than a single tool. It is a complete tool kit for the logistician. Formerly known as WebLOG, LIW is one of the best tools the new multifunctional logistician has in the information age. The Army is transforming into the new modular force structure with personnel trained to perform a wide variety of job capabilities. It is imperative for all logisticians to learn as many skills as possible in order to be successful in their roles in the new Army.

These new roles will create greater demands on logisticians than ever before. Logisticians must search for new tools to help them work faster, more efficiently, effectively, and accurately. The LIW website is composed of several logistical programs, applications, and links. They provide access to information that can help enable logisticians to become more multifunctional by providing access to US Army web-based programs. Some of these programs, applications, and links are explained below.

WEBLOG is a combination of web-based tools and applications that provide the logistician with the most recent reports from different logistical areas. These include asset management, supply management, maintenance management, Force Information from Department of Defense Activity Address Code (DODAAC), LOGSA internal applications, finance, distribution management, catalog information, and other queries and reports.

Army Oil Analysis Program (AOAP) is a combined base maintenance effort. The AOAP serves as a maintenance diagnostic tool supplementing the field's capabilities in detecting failures. The primary mission of the AOAP is to detect impending failures of oil-wetted components. Early detection of deterioration prevents more severe and costly damage or catastrophic failure.

Army Integrated Logistics Analysis Program (ILAP) is a web-based tool which collects data from different Standard Army Management Information Systems such as the Standard Army Retail Supply System and the Standard Army Maintenance System-2. The program allows creation of reports on different classes of supplys tailored to organizational and customer needs.

Electronic Technical Manuals (ETMs) Online allows downloading ETMs provided by the Army for general distribution. It is a great tool to use for building an electronic maintenance library.

Federal Supply Catalog provides access to the Army's supply catalog. This application allows Army logisticians to search the latest catalog for all the information related to all supplies and suppliers of the Army.

LOG911 provides electronic mail addresses for answering questions. It connects to various help desks and other tools supporting topics such as readiness, supply and support, maintenance, distribution and transportation, property accountability, and catalog data.

Logistics Support Activity Computer Based Training (LOGSA CBT) is a CBT program to educate customers on the use of the services, systems, and tools provided to logistics personnel by LOGSA. The CBT consists of two

components: the training materials/courseware and the web-based delivery system. In addition, the training materials/courseware can be installed from a CD-ROM ordered through this web site.

Parts Tracker allows an individual to track Class IX (repair parts) by different identifiers such as unit DODAAC, reporting factor tags, document number, transportation control number, supply support activity or routing identifier codes, and national item identification number, among others.

Property Book and Unit Supply-Enhanced Management Tool is an application primarily for property book officers, but it is also useful for commanders and S4 shops. This application provides support and information on property book activities.

PS Magazine provides information for all leaders and Soldiers on maintenance and preventive services for various Army equipment.

Packaging, Storage, and Containerization Center provides global logistics and engineering assistance in packaging, storage, hazardous materials, transportation, material handling, container testing, and distribution infrastructure modernization.

Readiness Predictive Analyzer (RPA) identifies integrated situational awareness capabilities for all levels of leadership, national through tactical. RPA horizontally integrates a range of logistics business processes to provide solutions to Army logisticians based on current weapon systems availability, parts availability, and repair status for weapons systems in maintenance. It provides key real-time equipment availability analysis.

Sets, Kits, and Outfits (SKO) Online provides a link to the Army's SKO web site, which provides direct access to the electronic SKO downloads, SKO bulletin board, and medical SKO.

Web Logistics Integrated Database (Web LIDB) Module provides direct access to a wide variety of tools and commodities for different needs in the logistics arena.

This is just a sample of the many applications available at LIW. This tool is available to all logisticians. Access may be requested through the web site at https://liw.logsa.army.mil. In order to access the website, you must have: a current Army Knowlege Online account, your supervisor's authorization, your full name and rank, phone number, and current e-mail address. Your level of access to the different links or applications will only be limited by your duty position, information needs, supervisor's authorization, and your security level.

LOGSA has created a single source of logistics information for the Army. LOGSA created the LIW, which provides a common point of entry to the existing web capabilities of the LIDB, the ILAP, and other LOGSA tools. The LIW is a first step in the Army's merger of all LIDB and ILAP capabilities. The merger began in early 2005 with the transfer of ILAP management authority to the LOGSA commander.

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Multi Echelon Logistics Distribution Management and the Drive to Reduce Distribution Under Performance

By Billy Demps
Karlo Aguilar

Army distribution supply chain management encompasses many individual and collective components. Commonly referred to as a supply pipeline, supply chain analysis is used primarily to identify all components associated with the movement, transportation, security, in-transit visibility, final location, condition, consumption metrics, and retrograde of commodities.

The US Army Quartermaster Center and School (QMC&S), Fort Lee, Virginia, rapidly created a Multi Echelon Logistics Distribution Management (MELDM) Course for the US Army Combined Arms Support Command. This course is designed to enable logisticians to resolve logistical issues during a scenario-driven, theater-level, problem-solving leadership exercise.

Lessons learned from *Operation Iraqi Freedom I* and *II* and modularity have sharpened the focus of logisticians on understanding supply chain management. Challenges that have driven improvement in logistical art and science have been battle synchronization of logistics and transportation assets and ground and air transportation support. Synchronization is required to support the operational tempo, mission dynamics, sustained battle rhythm, reduction of tactical support units forward, and replenishment orders of maneuver forces.

Often sustainment operations are in urgent need of updated supply routes, hours of operation, and force protection information.

Currently, the in-theater distribution management process (movement control of commodities) is based on an ever changing flexible synchronized battle rhythm between supply and transportation operations in support of maneuver forces. During *Operation Iraqi Freedom I*, the 13th Corps Support Command (COSCOM) adopted and demonstrated the effectiveness of non-conventional hybrid theater and corps level distribution management techniques. This facilitated an effective management of push and sustainment priorities, identification of critical and non-critical movement priorities, and transportation platforms including security. These techniques were also identified and designated for forward logistics support bases (LSBs) and hybrid logistics nodes.

Evidence provided by 13th COSCOM logisticians on the ground indicated that the initial corps sustainment phase was continuously challenged with limited main or alternate supply routes, hours of operation, and available force protection assets. These factors, among many others, affected the transportation, receipt, and issue of commodities, thus negatively impacting customer wait time (CWT) and requisition wait time (RWT) in theater. This reality further affected the repair of critical pacing items and the sustainment of forward-deployed forces.

What is CWT and RWT?

CWT is defined as the time elapsed between the customer generated document Julian date and the supply support activity (SSA) release

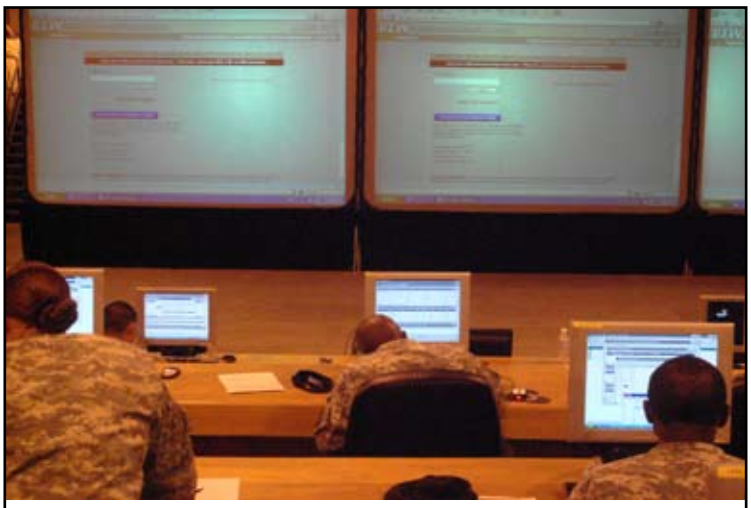
document date to customer. RWT is defined as the metric that measures national level response to SSA requisitions in days that the SSA waits for stock replenishment or to receive dedicated unit requests. RWT includes both retail level and national level time when a national level source is involved. RWT does not include local source fills or back order time.

CWT and RWT performance metrics are found in Army Regulation (AR) 710-2, Supply Policy Below the National Level. The RWT and CWT Department of the Army (DA) standards for the continental United States (CONUS) and outside CONUS (OCONUS) are as follows:

RWT DA Goal	CWT DA Goal
CONUS 6 days (air and ground) OCONUS Air 13 days OCONUS Ground 40 days	 CONUS 10 days OCONUS 15 days

The New Realities of Distribution in a Volatile Environment

Commodities arriving in the Kuwaiti and Iraqi theaters from CONUS-based aerial ports of debarkation or surface ports of debarkation do not follow standard nodes or throughput flow prevalent in long established theaters of operation such as Germany and Korea. The threat levels faced in the Kuwaiti and Iraqi theaters forces the prioritization of existing transportation resources daily with many commodities left at the theater distribution center for future transportation considerations. Conversely, distribution transportation platforms in well established theaters with low threat levels normally move unhindered. Recent deployments by logistics headquarters participating in *Operation Iraqi Freedom*, in-depth analyses of after action reviews and lessons learned have established that the standard doctrinal approach to distribution management is not relevant nor is the use of CWT and RWT as theater performance standards.



Soldiers in the Multi Echelon Logistics Distribution Management Course

As these developing distribution challenges surfaced, the QMC&S began to develop a MELDM course designed to address these pressing new non-doctrinal realities. The initial emphasis of the MELDM course included existing and emerging battlefield automation systems consisting of, but not limited to, the Integrated Logistics Analysis Program (ILAP), Movement Tracking System Plus, Force XXI Battle Command Brigade and Below, Global Transportation Network, and the Battle Command Sustainment Support System.

The development of situational exercises that required mission analysis and student-developed solutions resulting in viable courses of action was a key component in the early stages of course development. Emphasis was placed on the Iraqi and Kuwaiti theaters specifically dealing with the processes developed for movement and commodity management over a cyclical 72-hour timeframe. The course core curriculum emphasized using distribution decision support methods initially developed from the 13th COSCOM experience in Iraq. The course has evolved to include development of commodity movement cycle plans, forecasting and establishing stockage levels, and repair cycle times for pacing and non-pacing end item equipment such as main battle tanks. It also includes aviation air and related ground support, infantry fighting vehicles, trucks, and weapons systems. Retrograde and materiel returns management, in-transit pipeline tracking and management, national level asset visibility,

and projecting availability of transportation platforms to support commodity movement are also part of the course. The realities of present day combat service support have caused a shift from conventional commodity management to management of inventory flows, rather than management of inventory levels. As a result, a new operational fluidity paradigm is being established. The course continues to evolve training focus and delivery methodologies. At present, the course has increased the number of battlefield automation systems trained as well as placing greater focus on visibility, capacity, security, asset control, and analysis.

Now in its third year, MELDM continues to focus on the contemporary operating environment by targeting specific skill and management levels. The distribution pipeline (strategic and tactical) continues to carry the weight of the course with increased emphasis on distribution management from a global perspective analyzing strategic and tactical segments using automated logistics support systems. The course provides a keen understanding of situational realities from the operational, tactical, and national levels. Training covers dynamic control over the movement of specific commodities and assets in theater, the visibility and accountability of the assets, and the analysis required to make recommended courses of action. The key logistics automation system used for the analysis of these trends is ILAP. ILAP's capabilities have grown exponentially over the course of the last several years yielding unprecedented visibility of critical logistics, maintenance, finance, and in-transit visibility drivers.

The QMC&S will continue to meet the challenges of new operational realities by providing timely training to students attending the Combined Logistics Captains Career Course, Basic Officer Leaders Course, Supply and Service Management Officer Course, Pre-Command Course, Warrant Officer Advanced Course, Warrant Officer Basic Course, Advanced Noncommissioned Officer Course, Basic Noncommissioned Officer Course,

Troops use automated logistics support systems to help keep up with situational realities from the operational, tactical, and national levels.

Logistics Assistance Program Operations Course, and selected Request for Force Air Force Logistics personnel. The QMC&S will continue to spearhead the development of new training technologies, methodologies, and tools while embracing change in order to meet current and future logistics challenges. The QMC&S will continue to fulfill its mission to train Quartermasters to meet the needs of the maneuver force by actively participating in Army transformation towards an objective force.

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A Quartermaster Unit's Success: Flexible and Capable

By CPT James J. Zacchino Jr.

In synchronization with the transforming asymmetric battlefield, it is imperative that logistical support adapt and provide flexible sustainment to joint war fighting. An expeditionary maneuver concept cannot maintain prolonged and asymmetric fighting with archaic linear supply doctrine and limited assets. In recent *Operation Iraqi Freedom* deployments, units have proven the adaptability and flexible capability necessary to execute non-conventional support. As joint and combined combat forces engage the enemy, service support Soldiers are operating as multifunctional while maintaining functional skills. Army forces no longer operate to strict pre-*Operation Iraqi Freedom* modified table of organization and equipment (MTOE) and military occupational specialty (MOS) descriptions. The 109th Quartermaster Company, a 49th Quartermaster Group theater asset based at Fort Lee, Virginia, reflects a logistics enabler that operated outside its doctrinal mission and adapted to meet resource requirements in a joint environment.

As one of the only two active duty petroleum pipeline and terminal operating (PPTO) companies in the US Army, the 109th Quartermaster Company doctrinally operates 90 miles of the Inland Petroleum Distribution System (IPDS) tactical pipeline, six pump stations along the pipeline, and a 3.6 million-gallon tactical petroleum terminal (TPT). Petroleum received at the beach head from the US Navy is distributed inland by the IPDS to a TPT supporting corps and theater units in the communications zone. Operating as a PPTO unit, the 109th Quartermaster Company was successful in 2003 as the unit played a crucial role in bulk petroleum supply and distribution enabling the 3d Army combat forces to defeat the Iraqi Army and posture bulk petroleum for subsequent operations in Iraq. In support of *Operation Iraqi Freedom V-VII* in 2005, combat demands required the 109th Quartermaster Company to operate as an in-lieu-of medium truck company assigned to a corps support battalion (CSB) subordinate to the 1st Corps Support Command (COSCOM). The 109th Quartermaster Company, subsequently under the 3d COSCOM, was tasked to transport petroleum by tanker truck in the Marine Corps' area of responsibility in the Al Anbar Province of Iraq. Several field artillery and other non-transportation corps units across the Army were also relied upon to meet increased transportation requirements throughout the Iraqi area of operations.

Operating as a medium truck company was just the beginning of the unit's non-doctrinal and direct support experience. As combat operations evolved in Iraq's western sector and the insurgents changed strategy, the sustainment demands required of coalition forces changed. The fundamentals of mission, enemy, terrain, weather, time available, troops, and civil considerations remained in effect for logistics planning and execution. What changed was the allocation of resources and resources are limited. Units are limited by a lack of Soldiers with certain skill sets and the amount and type of equipment. In accordance with basic economic principles and in order to maintain freedom of maneuver, combatant commanders must have the warfighter's demands met by a dependable and

109th Quartermaster Company

flexible logistics system. Maneuver commanders drive the logistics demand. Logistics commanders must allocate and maximize limited resources to effectively meet demand-driven combat operations. At the company level, the 109th Quartermaster Company represents a resource with an outstanding multiplier that enabled maneuver commanders to effectively conduct combat operations and logistics commanders to maintain the supply chain with flexibility.

Multifunctional

The 109th Quartermaster Company Soldiers' skill sets were primarily comprised of 92F (Petroleum Specialist), 92G (Food Service Specialist), 25C (Radio Operator-Maintainer), 52D (Generator Mechanic), 63J (Quartermaster and Chemical Equipment Repairer) and 63B (Light-Wheel Vehicle Mechanic). Due to the medium truck mission, the company was reorganized from a petroleum-terminal platoon and a petroleum-pipeline platoon, to mirror three truck platoons of a medium truck company MTOE. Other than the light-wheel vehicle mechanics, Soldiers served as 88Ms (Motor Transport Operators). Based on MOS, reorganization, and additional requirements outside the transportation mission, the 109th Quartermaster Company severely lacked platoon and squad leadership. The requirement is for three 88M40s (E7 Motor Transport Operators), one per truck platoon. The 109th Quartermaster Company had none. The 109th Quartermaster Company filled two of the required six positions with 92F30s (E6 Petroleum Specialists) and four with 92F20s (E5 Petroleum Specialists). Eventually, changing battlefield requirements led to constant reallocation of leadership and platoon organization. Initially, a skill level 92F40 (E7 Petroleum Specialist) served as the unit's truckmaster, which is one of the most demanding positions during a deployment. Due to additional requirements, 92G40s (E7 Food Service Specialists) served the majority of their time as truckmasters. Despite the personnel shuffles to meet various requirements and taskings, the 109th Quartermaster Company's assigned CSB primarily viewed the 109th Quartermaster Company Soldiers as multifunctional and capable of serving as motor transport operators, petroleum specialists, and radio operators.

Combat logistics patrol halt

As an in-lieu-of medium truck company, 109th Quartermaster Company Soldiers transported petroleum by tanker truck throughout Iraq's western sector. The battle space included more than 17,500 square miles from Al Taqaddum west to the Syrian border. On 4 June 2006, after nine months of combat service, the 109th Quartermaster Company had conducted 286 combat logistics patrols (CLPs), driven more than 200,000 miles, and delivered over 3.2 million gallons of JP8 fuel, motor gasoline, and diesel fuel. These quantities do not depict the full picture. A typical mission from Al Asad to Al Qaim was a mere 95 miles in distance. However, a CLP took an average of six hours each way. Poor road conditions and a constant hostile threat restricted speed and ease of movement in the battle space. Including preparation and recovery, a mission to Al Qaim in support of the II Marine Expeditionary Force (MEF) was a two-day mission. The direct and general support customers were primarily comprised of MEF units and attachments.

In addition to fuel distribution, the 109th Quartermaster Company participated in dry cargo operations. As the Iraqi population prepared to vote for their constitution in October 2005, the need to secure polling sites dictated

109th Quartermaster Company's mission. The requirement to assist Marine Corps units in support of *Operation Liberty Express I* to provide barriers to various polling sites in Al Anbar resulted in the 109th Quartermaster Company augmenting an Army transportation company in transporting concrete barriers on flatbed trailers. The successful accomplishment led the 109th Quartermaster Company to shift assets and skills to augment transportation needs on two more occasions. The Quartermaster unit once again supported Marine requirements by transporting barriers to secure various polling sites for the secure voting of the Iraqi parliament in December 2005 (*Operation Liberty Express II*). The 109th Quartermaster Company also transported vehicles on M872 flat-bed trailers to support 3-504th Parachute Infantry Regiment operations in Ramadi.

As the unit provided direct support to maneuver elements, the 109th Quartermaster Company received two M1117 armored security vehicles (ASV) and trained four three-man crews. The trained crews were extremely flexible and able to operate as fuelers, radio operator-maintainers, transporters, and ASV gun-truck crews. Based on mission, the ASVs crews augmented a gun-truck company performing convoy security and escort throughout the western sector. The 109th Quartermaster Company maintained control of the ASVs for several months until they were transferred to a gun-truck company. The ASVs supported nine CLPs and trained ten crews from the gun-truck company.

Modular

Interoperable flexibility is the key to a modular concept. The 109th Quartermaster Company was able to increase logistical capabilities as demand elsewhere on the battlefield changed. Although not a modular-templated unit, the 109th Quartermaster Company was tasked to provide tailored packages. The plug-and-play packages included a truck platoon, forward logistics element (FLE), a fuel system supply point (FSSP) team, and logistics task forces (LTF).

109th Quartermaster Company Convoy

Personnel and truck assets were routinely reallocated. Increased fuel transport requirements at Al Taqaddum resulted in the 109th Quartermaster Company shifting a platoon-size element comprised of M915 trucks, M1062 tankers, and an M987 wrecker to meet the distribution surge for three weeks. The platoon conducted CLPs to Fallujah and as far south as Tallil. Further, the 109th Quartermaster Company platoon trained elements of a transportation unit on tactics, techniques, and procedures learned in the 109th Quartermaster Company's sector.

The 109th Quartermaster Company led a multifunctional FLE at Combat Out Post (COP) Rawah and provided direct support through command and control (C2), property accountability, fuel transport, and a FSSP team. TheC2 element also led teams from various Army combat service support units based at Al Asad to provide maintenance, Class I receipt and storage, and water purification in support of the 4-14th Cavalry and Iraqi Army forces. Within six months, the C2 and property accountability requirements for the 109th Quartermaster Company decreased at COP Rawah as further requirements in the western sector increased. The FSSP team continued to store, receive, issue, and transport JP8, diesel, and motor gasoline fuels.

The FLE became permanent and assumed the structure of a LTF.

Due to the ever changing battlefield, the 109th Quartermaster Company led three LTFs during its tour. In support of the 4-14th Cavalry elements operating from COP Rawah to the Syrian border, the 109th Quartermaster Company led a LTF that provided C2 and fuel support over desert terrain north of the Euphrates River. Additionally, the 109th Quartermaster Company was augmented for approximately 60 days with two transportation platoons to perform dry cargo palletized load system (PLS) transport missions. The LTF missions strictly required off-road capable vehicles.

Another LTF at COP North supported a 4-14th Cavalry troop-size element and Iraqi forces in the vicinity of the Iraqi and Syrian border north of the Euphrates River. Before the end of 2005, the 109th Quartermaster Company established a LTF at COP North and provided C2, water transport, and fuel capabilities (storage, issue, and transport). The C2 element also led teams from various units that provided maintenance, water support, and dry-cargo transport. The LTF at COP North became a permanent 109th Quartermaster Company mission requirement. The 109th Quartermaster Company Soldiers operating at the COP conducted numerous CLPs for resupply from Army and Marine Corps hubs. The third LTF operated in a joint capacity.

Joint

As the II MEF conducted combat operations in support of *Operation Steel Curtain* along the Iraqi and Syrian border south of the Euphrates River, the retail JP8 fuel requirements in cross country terrain had to be met. In order to support the 3-6th Marines, the 109th Quartermaster Company was resourced from the CSB to lead a LTF comprised of C2, fuelers, transporters, heavy expanded mobile tactical trucks (HEMTT), and PLS trucks. The LTF was operationally controlled by Combat Logistics Battalion (CLB) 7 of the II MEF. The joint and forward support operation was successful. They were commended for the quality of direct support the Marines received during combat engagements. The LTF based at Al Qaim returned to Al Asad by the end of 2005 and resumed the bulk fuel transport mission.

M915 truck and M1062 7,500-gallon tanker

In addition to conducting throughput CLPs under Army gun-truck escort and control, bulk petroleum transport missions were also under Marine Corps and Navy control. Gun-truck escort and control depended on the route and convoy composition. The 109th Quartermaster Company conducted CLPs under the operational control of CLB 2, CLB 7, and Navy Seabees. Additional joint missions included direct support to maneuver Marines operating in the vicinity of Camp Korean Village. This mission required two crews of M1088 tractors and M969 tankers to support tracked vehicles. The fuel team was operationally controlled by the Marines.

Other than an operationally controlled relationship, the operating environment required daily interaction with Marines. Not only did the 109th Quartermaster Company deliver petroleum products to Marine Corps operating bases, some of the bases provided 109th Quartermaster Company LTFs with petroleum resupply. To assist CSB operations in support of CLB 7, 109th Quartermaster Company provided a liaison noncommissioned officer (NCO). The liaison NCO provided better visibility and coordination between three nodes. Daily company maintenance and supply activities were also conducted with various Marine elements in Al Asad.

Challenges

The 109th Quartermaster Company overcame some significant obstacles in becoming efficient in all of their operational missions. They became experts in vehicle operations, communications, property accountability, and leadership. Each of these areas were confronted directly by the 109th Quartermaster Company, enabling them to sustain maneuver units.

The 109th Quartermaster Company was introduced to transportation and petroleum equipment not organic to the MTOE. With regards to maintenance, experience in identifying faults and repairing various tankers and trucks was extremely limited. Leadership, research, daily lessons learned, and motivated mechanics were key to the unit being able to maintain the readiness of the 109th Quartermaster Company's 128-vehicle fleet of petroleum and transportation assets. The ten days of truck operator training during pre-deployment did not prepare Soldiers to additionally operate HEMTT tankers, trucks, tankers, and flatbed trailers. Research and an experienced HEMTT NCO were essential in the development of a training program for operating the assigned line-haul and cross-country capable trucks and tankers.

Communications was a challenge throughout the tour. Equipment was extremely limited in an increasing network-centric environment. The unit's hurdles involved communicating from command post to convoy, within a convoy, and from command post to outlying nodes. The Mobile Tracking System (MTS) was the primary means permitting battlefield visibility between command post, convoys, and combat outposts. Single Channel Ground Airborne Radio System (SINCGARS) and Motorola hand-held radios provided internal convoy communications. Due to the unit's LTF and CLP requirements, communications resources were positioned at several nodes. In order to communicate between LTFs, each node needed at least one MTS. Each 109th Quartermaster Company CLP mission, regardless of node, had at least one of the three communications systems in each truck. The

M1088 tractor and M969 5,000-gallon tanker delivering fuel to a fuel system supply point.

communications systems were reallocated daily to support missions. Among the trucks, the systems were allocated to facilitate information flow in a convoy during a CLP. Not only were the systems limited in quantities, but they were also limited in reliability. The MTS satellite link was occasionally non-operative. MTS component parts were accumulated during the course of the tour to provide repair parts and build additional systems. The unit's communications team learned to install and trouble shoot the systems through trial and error and contractor assistance.

The limited quantity of SINCGARS allowed the fuel commodity NCO/officer in charge to communicate with the gun-trucks and escorts. Very few trucks had cab mounts or vehicle antennae. SINCGARS were used as manpacks in the vehicle cabs. Their range was limited by being used inside the armored cab. During security halts with personnel inside an armored truck, the Motorola handheld seemed reliable between trucks within 50 meters of each other. Once the convoy moved, distances between trucks fluctuated greater than 50 meters. By incorporating all three systems within a mission, communication resources were maximized to increase battlefield visibility and awareness. Yet the unit always struggled due to a shortage of communication systems. The most difficult communication days involved maintaining

communications and visibility of four nodes and three CLPs simultaneously.

Maintaining accountability for over $27 million of organization, installation, and theater provided equipment proved difficult. Property was located at Al Asad and at four forward operating bases. Limited communications and geographic separation made the process extremely challenging. Depending on a personnel or equipment surge elsewhere, either the property or hand receipt holder would relocate shortly after receiving a directive. This caused the documentation trail to be outpaced by the directive's requirement. Having more trucks and tankers than operators proved even more challenging as equipment and personnel were spread across the battlefield. Monthly inventories were conducted with reliance on personnel at other locations and in functioning internet and MTS communications. When lateral transfer directives were received, the search for equipment was an odyssey. The intense efforts in tracking equipment, hand receipts, and lateral transfer paperwork resulted in total accountability for equipment and personnel.

Leadership requirements were a concern due to limited leadership experience and LTF and liaison requirements. Although the unit's tailored packages were logistics enablers in direct support roles across the battlefield, the impact was negative at the command post. Deploying with a lack of E6 and E7 personnel, the additional liaison and C2 requirements limited officer and NCO leadership for the medium truck company mission. With most senior leaders located at various locations, company requirements at Al Asad placed more stress on the limited, available leaders and daily transportation operations. Despite only ten days of driver's training at Fort McClellan, Alabama, a limited number of senior leaders, and operating from at least four locations in the Anbar Province, the 109th Quartermaster Company ensured sustainment success. Untiring efforts and sheer perseverance through the painful challenges ended with mission accomplishment and all Soldiers redeployed home.

Future Sustainment Operations

The 109th Quartermaster Company's story is a striking example of the Army's transformation target: a multifunctional, modular, and joint-capable organization. The ultimate sustainment team must perform a myriad of support tasks, understand linear, non-linear, joint roles/responsibilities, and easily operate within/support any organization. These qualities entail smaller and expeditionary logistics enablers that can accomplish more. Despite battlefield, equipment, and personnel challenges, the 109th Quartermaster Company successfully capitalized on resources in joint operations. These agile capabilities allow support units to increase capacity and roles. In turn, maneuver and fire units can accomplish their mission with tailored sustainment. Efficiency will be gained as units are manned according to modular designed templates, Soldiers develop combined skills, service support leaders learn to manage various functions, and units train with interoperable flexibility. With transformation in progress, Soldiers will do the rest. The American Soldier is the outstanding multiplier that will maximize future sustainment operations.

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Rigger Support for *Operation Enduring Freedom*

By Dr. Steven E. Anders
Quartermaster Corps Historian

Between mid-February and early March 2006, 18 riggers from Fort Campbell, Kentucky, and Fort Bragg, North Carolina, deployed to Bagram Air Field, Afghanistan. The riggers began the challenging task of providing aerial resupply support to all Joint Coalition and International Security Assistance forces operating in the area. They are doing a superb job and have made rigger history.

This small team is made up of individuals from the 600th, 612th, 623d, and 647th Quartermaster Companies, and six Soldiers from the 4/647th Platoon, Fort Campbell. It is referred to collectively as the 647th Quartermaster Detachment. During their deployment, the 647th Quartermaster Detachment has conducted more than 300 airdrops. They also rigged and dropped over 3,000 bundles for a combined weight of more than 4.5 million pounds. The 647th Quartermaster Detachment had no detailed support or outside assistance. They accomplished this rather remarkable feat while maintaining a malfunction rate of less than one percent. Moreover, as excerpts from the *Operation Enduring Freedom VII Rigger Section Final Report* below clearly indicate, the riggers achieved several other important accomplishments as well.

A 647th Quartermaster Detachment Soldier moves a humanitarian-aid bundle into a Bagram Air Base warehouse in Afghanistan.

New Rigger Shed. The 647th Quartermaster Detachment was instrumental in designing and occupying the new rigger shed on the north end of Bagram Air Field. This facility has a high dock capable of maintaining 72 pre-rigged bundles of Class I supplies and Humanitarian Civil Assistance bundles. It is also equipped with the only shakeout and drying tower in the Combined Joint Operational Area (CJOA) of Afghanistan.

Establish Drop Zone Safety Officer (DZSO) Kits. In order to improve airdrops throughout the Afghanistan CJOA, the 647th Quartermaster Detachment requisitioned over $20,000 worth of DZSO kit items. Equipment such as VS-17 panels, wind meters, smoke, omni-directional lights, and infrared strobe lights were needed to conduct airdrops at night to vary the times of the drops. They also had to manufacture the raised angle markers that were necessary for the aircraft to identify the drop zone in-flight.

Dual Rigging Operations (Bagram Air Field and Kandahar Air Field). Proper support for joint/coalition forces in *Operation Mountain Thrust* (Helmand Province) required

deployment of four riggers to Kandahar Air Field, Afghanistan to establish a forward rigging facility which rigged and dropped over 50 bundles using Air Force and Canadian C-130s.

C-17 Airdrop Record. Mid-June 2006 marked the first time that 40 containerized delivery system bundles were dropped from a C-17 Globe Master in combat operations, in one pass over a drop zone. These bundles were an emergency resupply in support of offensive operations during *Operation Mountain Thrust* in southern Afghanistan.

Photo by Senior Airman Brian Ferguson, USAF

A new GPS-guided "Screamer" bundle from the Joint Precision Air Drop System (JPADS) falls out the back of a C-130 Hercules over Afghanistan. The drop was made from 17,500 feet above mean sea level and was the first joint Air Force/Army operation drop of JPADS in the Central Command area of responsibility. The system is designed to provide precision airdrops from high altitudes, eliminating the threat of small arms fire. All four bundles arrived less than 25 meters from the desired target.

Fourth of July Morale Bundles. On the 230th birthday of the United States, the 647th Quartermaster Detachment riggers developed the Independence Day 4th of July bundles. They rigged 48 bundles for 11 different forward operating bases. These bundles consisted of Soldier requested items including sodas, cookies, beef jerky, CDs, DVDs, footballs, soccer balls, socks, T-shirts, personal hygiene items, and an assortment of other treats. The Combined Joint Task Force-76 Commander wrote a letter for each bundle that read, "As a small token of appreciation for serving on freedom's frontier, I hope you find the items in this bundle enjoyable."

Low Cost Airdrop System (LCADS). The LCADS consist of a one-time use container and parachute. Over the course of the past year members of the 647th Quartermaster Detachment have dropped more than 600 LCADS containers, thus decreasing the cost of airdrops by 45 percent.

Joint Precision Airdrop System (JPADS). The 647th Quartermaster Detachment conducted the first combat resupply mission using JPADS with the Screamer 2K or Affordable Guided Airdrop System. Since 31 August 2006, the 647th Quartermaster Detachment has conducted over 15 JPADS drops using over 70 systems (primarily Screamers) to resupply forward operating bases with critical Class III (fuel) and Class V (ammunitions) to very small and remote locations.

Sling Load Operations. The 647th Quartermaster Detachment has also served as

A pallet of supplies is placed aboard a C-130 to be dropped for Afghans in remote locations.

A parachute rigger with the 647th Quartermaster Detachment attaches the parachute activation cord of a Joint Precision Air Drop Systems bundle to a C-130 Hercules static line before an airdrop over Afghanistan.

the sling load trainer and supporter for the CJOA for those units that do not have organic equipment and trained personnel. The riggers have performed numerous sling loads from Bagram Air Field and maintained sling load equipment for the Joint Logistics Command in the event of emergencies.

Afghanistan National Army (ANA) Partnership Training. The 647th Quartermaster Detachment riggers trained over 15 ANA logisticians on how to rig Container Delivery System (CDS) bundles both for low velocity and high velocity. The ANA was instructed on loading an Army C-130 and an Afghanistan MI-17 helicopter for airdrop of bundles of water and meals ready to eat which they delivered to their own soldiers. This action built the ANA's confidence by observing their pilots conducting resupply missions.

Humanitarian Assistance Drops. The riggers provided over 200 Humanitarian Assistance Survival bundles containing bags of beans, rice, salt, oil, and sugar; school/teacher/hygiene kits; and winter bundles containing blankets, shoes, clothes, stoves and charcoal. These bundles were airdropped to some of the neediest citizens of this mountainous country and helped build their confidence in the US Army.

Christmas Drop. Just in time for the holiday season, the 647th Quartermaster Detachment rigged and dropped a total of 50 CDS bundles to 13 locations. They contained magazines, chips, sodas, calendars, pop tarts, beef jerky, and other holiday packages that were designed to boost the morale of Soldiers at forward operating bases.

The Joint Logistics Command Support Operations Aerial Delivery officer in charge commended the 647th Quartermaster Detachment for their history-making accomplishments and tireless support of *Operation Enduring Freedom*. He wrote: "These guys have set the trend for all rigger sections to deploy to Afghanistan or Iraq in support of airdrop operations. The rough terrain of Afghanistan truly requires a highly motivated and skilled team of riggers to really support the warfighters at the forward operating bases and other remote locations. These riggers worked an average of 16 hours a day for the entire deployment. They truly are a group of professionals that I have been proud to serve with and will gladly serve with again."

Dr. Steven E. Anders is the Quartermaster Corps Historian assigned to the US Army Quartermaster Center and School, Fort Lee, Virginia.

From Fort Bragg to Antarctica, First Heavy Airdrop from C-17 into the South Pole

By WO1 Ismael Ramosbarbosa

Deployment of four G-11 cargo parachutes.

In August 2006, the National Science Foundation requested support to airdrop supplies and equipment into the Antarctica National Science and Research Center. The 18th Airborne Corps, eager to support this mission, tasked the 647th Quartermaster Aerial Delivery Support Company, 189th Support Battalion, 507th Combat Support Group, 1st Theater Sustainment Command at Fort Bragg, North Carolina. The 647th Quartermaster Aerial Delivery Support Company was instructed to supply all air items, platforms, cargo parachutes, and two Parachute Riggers (92R). The 62d Airlift Wing and 446th Airlift Wing from McChord, Air Force Base, Washington, were tasked with the airdrop and transport of air items and equipment. Their mission was from Fort Bragg to the base of operations at the United State Antarctica Program (USAP) facilities in Christchurch, New Zealand.

The 647th Quartermaster Aerial Delivery Support Company Aerial Delivery Officer (921A) and Heavy Pack and Maintenance Officer (921A) were tasked with the planning and execution of this mission. After several platform configurations, designs, and hundreds of e-mails from airdrop engineers at the Integrated Logistic support Center and USAP facilities, a supply and airdrop platform configuration appropriate for this mission was agreed upon.

US Army and New Zealand military riggers perform rigging operations at the US Antartic program facility.

This airdrop would validate the capabilities to resupply the Antarctica Science Center during extreme weather conditions. According to the Air Force drop zone supply officer for the airdrop, the main goal of the summer's C-17 airdrop was proof of concept. The C-17 has done away with the navigator and flight engineer positions found on the C-130 and C-141 aircraft and replaced them with computers. The South Pole is not a normal place. The Air Force and Boeing wanted to know if an airdrop would work near the pole when flying in grid mode (computer mode).

Four mass supply loads floating over the South Pole.

In December 2006, the 647th Quartermaster Aerial Delivery Support Company aerial delivery noncommissioned officer (92R) and heavy pack and maintenance officer arrived at USAP facilities in Christchurch to join *Operation Deep Freeze*. During the rigging operations, they worked with five riggers from the Royal New Zealand Army Aerial Delivery Corps tasked to rig the four type V aluminum platforms requested under 647th Quartermaster Company supervision. Their proficiency and dedication to the task led to completion of the rigging 24 hours ahead of schedule. Two rigged loads were 88 inches in height and, for the first time ever, not one but two mass supply airdrop loads reached 110 inches in height. All four type V platforms were rigged for sequential extraction (one load is the extraction device of the next load) in one pass over the drop zone.

On 20 December 2006, after four months of planning and coordination across the world, the C-17 departed the USAP facility in Christchurch for the 5-hour flight to Antarctica. The C-17 was configured with four 16-foot long type V platforms, weighing between 16,265 and 17,765 pounds each for a total of 68,140 pounds of dry and baking goods. After landing in McMurdo station for refueling, the flight arrived over the South Pole around 2200 (New Zealand local time) with a temperature of -32 degrees Fahrenheit. Under a clear and beautiful deep blue sky, the joint task force of 2 US Army airborne riggers, 5 New Zealand Army riggers, and 14 US Air Force pilots and loadmasters successfully completed the first heavy equipment airdrop from a C-17 Globemaster into the South Pole. This was another historic moment for *Operation Deep Freeze* since its beginning in 1955 with the landing of the first US aircraft on the South Pole.

The 647th Quartermaster Aerial Delivery Support Company is looking forward to continuing support of this mission in the years to come. The members of the 647th Quartermaster Aerial Delivery Support Company were proud to participate in *Operation Deep Freeze* and be part of this historic achievement for the United States, the US Army, and the aerial delivery community.

Mass supply load landed safely and ready for recovery.

All rigging operations photographs were provided and taken by W01 Ismael Ramosbarbosa. All South Pole photographs were taken by Forest Banks, Antarctica National Science and Research Center.

WO1 Ismael Ramosbarbosa is a 921A, Airdrop Systems Technician. He is currently assigned as the 647th Quartermaster Aerial Delivery Support Company Cargo Parachute Pack and Cargo Parachute Maintenance Facility Officer, Fort Bragg, North Carolina.

2007 Philip A. Connelly Award Winners

The ten winners of the Philip A. Connelly Awards for Excellence in preparing and serving food in Army dining facilities and field kitchens were honored 31 March 2007, at the Joint Services Excellence in Food Service Awards in Kansas City, Missouri. The Army Center of Excellence, Subsistence (ACES) at the US Army Quartermaster Center and School, Fort Lee, Virginia, administers the annual program. The program is named in honor of Philip A. Connelly, past president of the International Food Service Executives Association (IFSEA), a highly regarded force behind obtaining IFSEA sponsorship for the Department of the Army's recognition of excellence in Army food service. The program is co-sponsored by the Department of the Army and IFSEA. ACES and IFSEA evaluators traveled around the world from October-December 2006 to obtain first-hand knowledge of how Army food service personnel perform their jobs. All the finalists were evaluated in a number of areas including food preparation, taste, nutrition, service, and sanitation.

For this year's competition, a total of 27 finalists were selected for evaluation. Five winners and five runners-up won awards in the following five different dining facility categories: Small Garrison (serving 400 or less), Large Garrison (serving 401 or more), Active Army Field Kitchens, US Army Reserve Field Kitchens, and US Army National Guard Field Kitchens.

Large Garrison - Winner
507th Corps Support Group (Airborne)
1st Sustainment Command (Theater)
Fort Bragg, North Carolina

Large Garrison - Runner-Up
United States Army Garrison
Main Post Dining Facility
Fort Riley, Kansas

Small Garrison - Winner
1st Special Forces Group
Fort Lewis, Washington

Small Garrison - Runner-Up
Outstanding Cafe
44th Signal Battalion
Mannheim, Germany

Active Army Field Kitchen - Winner
8th Ordnance Company
1/507th Provisional Battalion
507th Corps Support Group (Airborne)
Fort Bragg, North Carolina

Active Army Field Kitchen - Runner-Up
Headquarters and Headquarters Company
501st Corps Support Group
19th Theater Support Command
Camp Stanley, Korea

US Army National Guard Field Kitchen - Winner
367th Maintenance Company
Mississippi Army National Guard
Philadelphia, Mississippi

US Army National Guard Field Kitchen - Runner-Up
Delta Company
429th Virginia Army National Guard
Anderson, South Carolina

US Army Reserve Field Kitchen - Winner
308th Transportation Company
Lincoln, Nebraska

US Army Reserve Field Kitchen - Runner-Up
535th Military Police Battalion
Camp Butner, North Carolina

TOTAL FORCE

475th Quartermaster Group Sets Stage for Next Quartermaster Liquid Logistics Exercise

By MAJ Kurt Weinand, Support Operations Officer, 475th Quartermaster Group

The 475th Quartermaster Group, Farrell, Pennsylvania, is a petroleum and water group very much like the Army's 49th Quartermaster Group, US Army Quartermaster Center and School (QMC&S), Fort Lee, Virginia. One major difference is that the 475th Quartermaster Group is a US Army Reserve (USAR) unit. In 1981, the 475th Quartermaster Group began a localized Petroleum Oil and Lubricant Exercise (POLEX), in an attempt to enhance training of petroleum units and personnel.

The exercise consists of the 475th Quartermaster Group providing command and control of subordinate battalions operating in separate locations across the United States. The event is collective training at the company level as well as the military decision making process at the battalion and group staff levels. Training Soldiers with real fuel, filling bladders, putting fuel into tankers, and performing line-haul missions was the basis for the exercise. The POLEX took place during a two-week annual training period.

The exercise was a huge success, each year thereafter more USAR and Army National Guard units were added. The current intent remains much the same as the original concept. Today, known as the Quartermaster Liquid Logistics Exercise (QLLEX), the exercise has broadened its spectrum and is focused on training the entire USAR logistics force. The event, which takes place each year during the June timeframe, now includes a key partnership with the Defense Energy Support Center (DESC) of the Defense Logistics Agency (DLA) located at Fort Belvoir, Virginia.

Fuel operations include receipt, distribution, storage, and accountability of JP5 and JP8 at various military installations across the United States.

During the two-week training period each summer, Soldiers from around the country take the place of DESC contractors and deliver fuel to major locations throughout the nation. These are actual real world operations. QLLEX focuses its energy on helping Soldiers become technically proficient in their skills as logisticians while doing so in a realistic tactical training environment. Quartermaster battalion commanders ensure the tactical environment is maintained throughout the exercise. It must remain on specification as well as meet its distribution target date. The partnership with DESC not only provides Soldiers with real world missions, but actually provides a cost savings to DLA.

All regional reserve commands participate in the exercise in some form or fashion. As the

exercise has expanded, other elements have been added. Petroleum, transportation line-hauls, and water purification units have been incorporated. Field services Soldiers also participate in QLLEX. They set up showers at the fuel locations so transporters can have a hot shower when they are out in the field. FY07 will be the first time that a force provider (FP) unit will be involved in QLLEX. The FP unit will participate in the exercise at one of its seven locations.

Additional support personnel from the newly formed 164th Quartermaster Group, USAR, Broken Arrow, Oklahoma, and the 165th Quartermaster Group, USAR, Fort Belvoir, Virginia, will be taking part in QLLEX in order to train their staff and prepare them to be the exercise control agent in the future. Coordination and execution of QLLEX is no small task. In the summer of 2001, prior to the World Trade Center and Pentagon attacks, the 475th Quartermaster Group conducted the largest petroleum exercise to date. Approximately 5,000 Soldiers operating from 15 locations across the nation delivered fuel for DESC. In 2002, with speculation about what the US government might do, and the anticipation of future deployments on the horizon, the participants dropped to about 3,000. Since 2003, the national exercise has about 2,000 participants annually. During the two-week period, the Soldiers haul and deliver more than two million gallons of fuel. This still represents the largest ongoing petroleum exercise in the country and plans are currently in the final stages for the 2007 QLLEX.

The 475th Quartermaster Group is currently on their third rotation at Camp Arifjan, Kuwait. The 475 Quartermaster Group has a headquarters element deployed in theater in support of *Operation Iraqi Freedom* and *Operation Enduring Freedom*. The Group manages and tracks all bulk petroleum for *Operation Iraqi Freedom* from Djibouti in the Horn of Africa to Afghanistan. Oversight of fuel by the 475th Quartermaster Group on a daily basis equates to approximately 25 million gallons of petroleum moving around the battle space.

QLLEX prepares Soldiers for deployment with pertinent and realistic hands-on training. It is an excellent exercise. Providing the opportunity for Soldiers to participate in this exercise as part of deployment training is a valuable combat multiplier. It prepares them for their fuel or water missions. Participation in QLLEX also enhances and validates a Soldier's ability to perform the mission in theater, where they are able to accomplish the assigned missions.

The 475th Quartermaster Group is in frequent contact with the QMC&S. They seek advice from QMC&S on relevant changes in petroleum and water issues and initiatives. The 475th Quartermaster Group then acts as the coordinator to integrate appropriate changes into QLLEX whenever possible. The 475th Quartermaster Group serves as the senior petroleum advisor for the United States Army Reserve Command (USARC). The current 475th Quartermaster Group commander's intent is to increase the complexity and scope of the exercise. QLLEX will continue to closely integrate the tactical and technical aspects of training to better prepare Soldiers for their real world missions. The 475th Quartermaster Group provides USARC with vital information on QLLEX execution for all USAR Quartermaster units.

The final planning conference in preparation for this summer's QLLEX is scheduled 13-15 April 2007 at the 475th Quartermaster Group Headquarters in Farrell, Pennsylvania. The US Army Quartermaster General is scheduled to be the guest speaker at the conference.

QLLEX 06 Fuel Containment Area at DESC Americas - West, DFSP San Pedro, California

Army Reserve Supports Assault Hoseline System

By MAJ Ramiro Sandoval

In early December 2006, twelve selected Soldiers arrived in Kansas City, Kansas for new equipment training on the Assault Hoseline System (AHS). The 842d Quartermaster Company, with the 89th Regional Readiness Command (RRC) from Wichita, Kansas, hosted contractors, Soldiers, staff members, and instructors for a week of training and equipment inventory.

The AHS is a mobile petroleum transport system using a four-inch hose that transfers fuel from bulk storage sites to various distances up to 2.5 miles. It can be tactically deployed and operated in most weather conditions. The Soldiers received operator and maintenance training on three key components: the fuel pump (which rides on a trailer), the hoseline, and motorized spool (to employ and retrieve the hose). Practice spool exercises were conducted from a mounted cargo truck. The entire system offers updated features and kits to ensure mission success for fuel distribution. One kit in the AHS is the suspension equipment, a tripod to hang the hose over obstacles up to 200 feet wide such as a ravine or river.

The AHS can connect to fixed petroleum distribution systems and help eliminate or reduce the need for fuel truck deliveries in hostile areas. Soldiers received training related to mounting and deploying the AHS from a cargo truck. Once the hose is mounted on the truck, the Soldiers use a motorized employment and retrieval system providing spool turning motion making it easier to emplace and recover the line. The fuel pump can deliver 350 gallons per minute. Soldiers from the 842d Quartermaster Company deployed the hoseline at 2.5 miles per hour (MPH) and retrieved the hose at .75 MPH. Rotating through the different positions, Soldiers developed skills as safety guides, hoseline guides, truck drivers, and mounting assistants.

Equipment maintainers at the 842d Quartermaster Company agreed that hands-on training with the equipment and as a team was excellent versus web based training. The most challenging part was actually deploying the hoseline system. Personnel received instruction on incident responses such as fuel spills and hoseline repair actions. Additional instruction included the technical skill of hoseline engineering by using clamps, couplings, slings, and valves.

Soldiers from the 88th RRC, Fort Snelling, Minnesota, stated they received excellent

Soldiers receive operator guidance on the pump for the Assault Hoseline System.

training from key instructors who were subject matter experts on the fuel pump. Soldiers built confidence working with this equipment and will train others. According to the AHS acquisition manager, the Soldiers displayed a keen eagerness and motivation to learn how to operate and maintain the AHS. The Soldiers displayed professionalism and intense effort during the training.

In addition to the 842d Quartermaster Company, the 728th Quartermaster Company with the 89th RRC, and the 417th Quartermaster Company with the 88th RRC received the AHS. Each AHS costs over $600,000 to field and deploy.

Soldiers monitor the hose of the Assault Hoseline System.

MAJ Ramiro Sandoval is US Army Reserve (USAR) (Active Guard Reserve) currently assigned as a Force Integration Officer with the 89th Regional Readiness Command, Wichita. Kansas. He was USAR enlisted from 1985 to 1988 and was commissioned in 1989 into the Reserve Officers' Training Corps. MAJ Sandoval has a bachelor of arts degree in economics from the University of California at Riverside, and a bachelor of science degree in telecommunications from the DeVry Institute of Technology, Long Beach, California.

Total Force Integration Office

The Quartermaster Total Force Integration Office (TFIO) provides a link between the US Army Quartermaster Center and School (QMC&S), Fort Lee, Virginia, Reserve Component (RC) units and Soldiers. Working in coordination with each directorate, the TFIO provides the RC perspective on issues that cross the spectrum of the QMC&S mission. The TFIO Director is an Active Guard-Reserve Soldier whose mission is to support the integration of the US Army Reserve and Army National Guard as vital components of the Quartermaster Corps and the Total Army. The TFIO also provides the field with a channel of communication to address questions and concerns of interest to RC logisticians. All RC Soldiers are encouraged to contact the TFIO on any matter of interest regarding the Quartermaster Corps and the Total Army.

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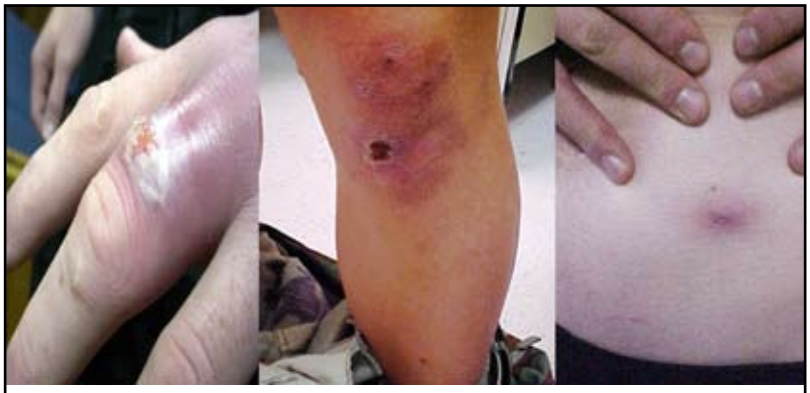
INTEGRATION OF HAZARDS INTO THE COMPOSITE RISK MANAGEMENT PROCESS

BY MICHAEL L. DAVIS
SAFETY SPECIALIST ASSIGNED TO THE US ARMY QUARTERMASTER CENTER AND SCHOOL, FORT LEE, VIRGINIA

Composite Risk Management (CRM) can be a very effective tool in a unit's preparation for a particular mission environment, but only if all the unique hazards are incorporated into the CRM document and appropriate training is conducted. Accident reviews often show evidence that hazards have not been identified and integrated into the CRM process. Soldiers are being exposed to avoidable hazards because of shortfalls in CRM documents and training.



MRSA can occur on various parts of the body and often is mistaken for spider bites.

Important health hazards are often being omitted from CRM worksheets for operations and training initiatives (especially during modern Army combative training). One common health hazard that is often left out of the CRM document is information on methicillin resistant staphylococcus aureus (MRSA). MRSA is a common bacterium that can cause urinary tract infections, toxic shock syndrome, skin infections (boils and pimples), pneumonia, bloodstream infections, and even death. MRSA (staphylococcus aureus) sometimes referred to simply as "staph" or "staph A" is a common bacterium found on the skin of healthy people. It is usually treatable with antibiotics although it is becoming resistant to some antibiotics currently in use. It is a common cause of hospital-acquired infections but rarely infects healthy people. The condition is often mistaken for a spider bite. MRSA infections can cause a broad range of symptoms depending on the part of the body that is infected; these may include surgical wounds, burns, catheter sites, eye, skin, and the blood stream. Infection often results in redness, swelling, and tenderness. People may carry MRSA without having any symptoms. Symptoms in serious cases may include fever, lethargy, and headache.

The staph bacterium is generally spread through physical contact with an individual who is infected or carrying the organism. It can also be contracted by being exposed to a contaminated workplace or equipment. Some people can carry MRSA for days to many months, even after their infection has been treated. Crowded conditions and a lack of overall cleanliness also enhance the transmission process. Soldiers having compromised skin or sharing personal items are at greater risk of contracting an infection.

Controls that should be in place and enforced are hand washing, keeping cuts and abrasions clean and covered, and eliminating sharing of personal items. These steps may sound easy but enforcement by leaders must be done consistently through updated CRM documents and required training. Doing so provides for successful task accomplishment and allows users to make informed decisions about hazards Soldiers will face.

Finally, the integration of CRM into the planning and execution of every mission is a leadership responsibility. The process is not a science and will not provide leaders with a precise course of action. However, it is an important tool that must be fully integrated into the training process.

Career News

Combat Service Support Division
US Army Human Resources Command

Ordnance, Transportation, and Quartermaster commissioned officers are organized into rank aligned logistics branches. We now have Logistics Lieutenant Colonels, Majors, Captains and Lieutenants' Logistics Assignment Branches. Your assignment officer remains the same for the foreseeable future and can be contacted through the same phone numbers and e-mail accounts as previously used. We have integrated our Logistics and Soldier Support Warrant Officers into Combat Service Support Division. Each warrant officer will continue to receive the same professional support from their career manager. The Logistics Assignment Officers are committed to providing the same level of assignment and professional development service as always, just in a different configuration. Visit the HRC home page at https://www.hrc.army.mil/. For more information about Quartermaster Corps officer, warrant officer and noncommissioned officer issues, access the Office of the Quartermaster General web site at http://www.quartermaster.army.mil/.

Army Acquisition Corps Introduces the Army's Newest Career Management Field and Military Occupational Specialty, 51C

The United States Army Acquisition Support Center (USAASC) announces the Army's newest career management field (CMF) and military occupation specialty (MOS) 51C, Acquisition, Logistics, and Technology (AL&T) Contracting noncommissioned (NCO) officer. According to the Director, Human Resources Command, Office of the Deputy Chief of Staff for Operations and Plans, it has been 15 years since the Army last introduced a new CMF and MOS into the full spectrum Army. The AL&T Contracting NCOs will have the potential to become warranted Contingency Contracting Officers (CCOs). Warranted CCOs are authorized by law to procure supplies, services, and provide for minor construction in support of deployed forces. AL&T Contracting NCOs will be assigned to the Army Sustainment Command's Contracting Support Brigades, Contingency Contracting Battalions, Senior Contingency Contracting Teams, and Contingency Contracting Teams. All contracting commands, units, and teams are a part of the modular contracting force structure and the Army Force Generation cycle, providing contingency contracting support anytime, anywhere.

The USAASC will be the proponent for the CMF and MOS 51C, AL&T Contracting NCOs and responsible for the life cycle management process for the Army's new CMF and Contracting NCO Corps. The life cycle management process consists of recruitment, retention, individual training and education, distribution, sustainment, professional development, and separation. Effective 1 October 2007, Soldiers from any MOS in the rank of staff sergeant through sergeant first class with less then ten years of active duty service in the Regular Army, Army Reserves, and National Guard who meet the prerequisites for MOS 51C will be allowed to request reclassification.

QUARTERMASTER MATERIEL SYSTEMS CONFERENCE

BY ALBIN R. MAJEWSKI

On 9-10 January 2007, Brigadier General Mark Bellini and Brigadier General John Bartley co-hosted a Quartermaster Materiel Systems Program Review at the Larkin Conference Center, Fort Lee, Virginia. While program reviews are held every quarter, this was the first review to include both the Quartermaster General and the Program Executive Officer for Combat Support and Combat Service Support.

The purpose of the program review is to ensure all organizations involved in defining, specifying, acquiring, fielding, and sustaining Quartermaster systems have the opportunity to review program status, discuss issues, and develop solutions. Organizations represented included Headquarters Department of the Army G-3/4/8, the Assistant Secretary of the Army for Acquisition Logistics and Technology, Forces Command G-4, Army Materiel Command, Program Manager (PM) Force Projection Systems, Product Managers (PdM) for Force Sustainment Systems (FSS), Petroleum and Water Systems (PAWS), and Construction Engineering/Materiel Handling Equipment (CE/MHE), as well as the 49th Petroleum Group and action officers from both the Quartermaster Center and School (QMC&S), and the Combined Arms Support Command (CASCOM).

The first day, presentations provided organizational overview, vision, and strategy. PdM FSS Assistant Product Managers (APdM) provided status and accomplishments over the last 180 days and planned efforts for the next 180 days for the following PdM FSS programs.

- Joint Precision Air Drop System (JPADS): The update included the status of new operational needs statements, completed and planned testing, and the signing of the Milestone B approval on 3 January 2007. The capability document was approved in January 2007 at the scheduled Joint Capabilities Board and the program strategy for delivering the 2K JPADS to the user as quickly as possible. Specific capabilities of candidate systems were not discussed since the 2K capability is currently undergoing source selection.
- Low Cost Air Drop System
- Advanced Low Velocity Air Drop System
- Enhanced Container Delivery System
- Containerized Kitchen (CK): The CK program is mature and well funded in the Program Objective Memorandum (POM). Development is in progress for a Thermal-Fluid CK. This technical approach eliminates the need for open flame burners and incorporates the Sanitation Center within the kitchen.
- Assault Kitchen (AK): The AK provides a heat-on-the-move capability for the unitized group ration heat and serve. This capability will first be fielded to Stryker Brigade combat teams because their field feeding sections have the requisite high-mobility multipurpose wheeled vehicle (HMMWV) vehicles and trailers.
- Multi-Temperature Refrigerated Container System (MTRCS): The MTRCS enables throughput distribution of three days of rations for up to 800 personnel on a MTRCS and flatrack combination. This system is

currently in testing and scheduled for fielding in 2009.

- Laundry Advanced System (LADS): The LADS is a fielded program found in field service companies. The LADS employs dry-to-dry technology that recycles in excess of 95 percent of the water used. Much of the discussion centered on the need for operators to perform preventive maintenance checks and services, troubleshooting, as well as the need for increased unit and leader training.

- Mobile Integrated Remains Collection System (MIRCS): The MIRCS is completing developmental testing. A logistics demonstration was scheduled for February-March 2007 with a limited user test in March 2007. Fielding of this capability to mortuary affairs units is scheduled to begin in December 2008.

- Force Provider (FP): As currently configured, a single FP module supports 600 personnel including the operators. It takes 10-14 days for site preparation and set up. PdM FSS has designed and nearly completed testing of new air-beam shelters, and 3:1 expandable triple container-based shower, laundry, latrine, and kitchen that repackage the FP into 150-person modules. The new capability will be incorporated into FP modules during system reset. A water reuse and recycle capability that leverages currently fielded Tactical Water Purification System technology has been developed, but is currently unfunded for production. This capability will significantly reduce the amount of water required to resupply the FP.

During the afternoon of the first day, CASCOM provided briefings on a variety of subjects that impact the development of all Quartermaster systems. The first briefing was a combined presentation from the Chief, Integrated Logistics Systems Division, and the Chief, Systems Integration Division covering logistics demonstrations. The purpose was to define roles and responsibilities and outline for the materiel developers: why a log demo is important, what is necessary for a successful log demo, and who is responsible. A US Army Training and Doctrine Command Reliability and Maintainability Engineer provided a briefing on Achieving Reliability in Testing. This presentation focused on understanding reliability requirements and the investment in testing necessary to demonstrate the reliability of any particular system. The final briefings of day one were updates on the capability based assessments in progress. They included a presentation on the Army Food Program and an integrated briefing on three efforts: field hygiene, petroleum and water operations, and helicopter internal/external cargo load operations.

The second day began with the PdM CE/MHE presentation on organization, structure, and vision. A status update and planned accomplishments briefing was presented for the active MHE programs listed below.

- All Terrain Lifter Army System II (ATLAS II) 10,000 pounds forklift: The forklift was pending source selection and has since had a contract awarded for 566 ATLAS II.

- Kalmar Rough Terrain Container Handler

- Army Node Transloader (ANT): The ANT is a three-wheeled forklift capable of lifting 4,000 pounds. The ANT is being considered as a replacement for the aging 4K forklift. During discussion, it was noted that the Marine Corps has developed a 5K forklift with extendable boom similar in design to the ATLAS. CASCOM and the PdM CE/MHE will investigate the capability of the Marine Corps 5K and determine if it meets the Army's key performance parameters.

The PdM PAWS provided an update on the organization structure, strategic plan, and major initiatives such as the Expeditionary Water

Bottling Plant and a common pump solution. Following this introduction to petroleum and water, the APdMs for water and fuel systems presented status updates and issues for the following programs:

- 850 Gallon Unit Water Pod (Camel): The Camel is a replacement for the current 400 gallon Water Buffalo. The prototype Camel is in testing. Discussion centered around the requirement for water heating and cooling on this item.

- Hippo (2000-gallon Load Handling System compatible water tank rack system): This item is currently being fielded. Fifty-four have been fielded in the last six months. An additional 56 are scheduled for fielding in the next 180 days.

- Lightweight Water Purifier: This is a mature program currently in fielding.

- Tactical Water Purification System (TWPS): The 1,500 gallon per hour TWPS is a mature program currently being fielded.

- Advanced Aviation Forward Area Refueling System (AAFARS): The AAFARS is a fully funded program and has fielded 244 of the required 406 systems to date.

- Petroleum Quality Assurance System (PQAS): A total of 12 of 17 funded PQAS produced have been fielded. This item generated discussion as the requirement to up-armor vehicles has made PQAS too heavy for the HMMWV. Various alternatives were discussed and will be investigated.

- Modular Fuel System (MFS): The MFS, formerly know as Load Handling Modular Fuel Farm, has been officially terminated. The termination decision was based on the removal of production funding in the POM.

- Rapidly Installed Fluid Transfer System (RIFTS): It was officially announced that the RIFTS was pending termination. A draft termination letter was provided and PdM PAWS has begun developing a termination plan.

Representatives from CASCOM provided two briefings starting with the impact of MFS termination on modularity. This was followed by a briefing on how the requirements for Quartermaster systems are derived by merging various databases. It should be noted that these numbers are updated after each Total Army Analysis is approved. The final briefing provided status for all the Joint Capabilities Integration and Development System documents currently being developed, staffed, or in the approval process.

Quarterly reviews rotate locations between Fort Lee and our PMs in Warren, Michigan and Natick, Massachusetts. The next review is expected to be at the action officer level in May 2007. The next review with General Officer participation is anticipated to take place in August 2007 at a site to be determined.

Albin R. Majewski is the Deputy for the Sustainment Division, Materiel Systems Directorate, US Army Combined Arms Support Command, Fort Lee, Virginia. He has a bachelors degree in human resource management from Marquette University and a masters of business administration from Florida Institute of Technology.

Food Service Contract Management Training

Is your unit preparing to deploy to an area of responsibility (AOR)? Will you be supported by a food service contractor during your deployment? Are your senior food service personnel trained and prepared to serve as contracting officer representatives (CORs), contracting officer technical representatives, or performance evaluators? It is essential that Army personnel be trained in the duties, responsibilities, and limitations of personnel in these positions. A 2004 General Accounting Office report stated: "The lack of contract training for operational commanders, customers, and others with responsibilities to use, manage, and oversee logistics support contracts has adversely impacted the use of such contracts to support deployed forces in contingency operations."

There is a clear need to continue the oversight of contractor performance by trained and motivated personnel. Preparation of requirement documents and requests for support must be accurate, detailing minimum needs of the government and not be weighed down with "nice to have" items often referred to as gold plating. The intense scrutiny being exercised over all expenditures will only increase as costs rise. Properly trained, experienced personnel can contribute to cost control/avoidance actions and improve our use of the resources provided to perform our mission.

To meet this need within the Army food service program, the US Army Quartermaster Center and School (QMC&S), Army Center of Excellence, Subsistence (ACES), Fort Lee, Virginia, continues to offer Food Service Contract Management (FSCM) training designed to prepare food service personnel to perform in this area. The use of a mobile training team (MTT) has been expanded, taking the training to installations with units preparing for deployment as well as offering the class at the QMC&S. Thus far in FY07, the training has been provided at Fort Lee, Fort Bragg, North Carolina; Fort Riley, Kansas; and Baumholder, Germany. In February 2007, the MTT conducted classes in Camp Arifjan, Kuwait and will instruct classes in Seoul, Korea in April 2007. Additional classes are scheduled at the QMC&S as well.

This intense, compact training session details the duties, responsibilities, and limitations of CORs, performance assessment evaluators, monitors, and other government representatives when dealing with food service contractors. Special emphasis is placed on contingency operations and specific requirements relating to the current AORs within the Middle East. Food safety and sanitation are stressed as inspection tools for increased force protection.

To request a pre-deployment MTT presentation of this FSCM training or for attendance at a Fort Lee class contact ACES personnel, Richard A Harsh, (804) 734-4832 (DSN 687) or harshr@lee.army.mil or Cara Vartuli-Dusablon, (804) 734-4842 (DSN 687) or cara.vartulidusablon@us.army.mil

Contract Management as an Element of Customer Service

How does your performance as a contracting officer representative (COR) or performance assessment evaluator (PAE) relate to customer service in a contracted dining facility? The goals of ensuring a dining environment for every Soldier that meets health and nutrition standards, Army preparation and serving standards, Technical Bulletin-Medical 530 food safety and sanitation standards, and controlling costs do not change when a facility is contracted out. Customer service is an integral part of the contract placing specific responsibilities on the contractor. Customer service is also rendered by the Army food service professionals who provide oversight to these contracts. Providing Soldiers quality meals that meet nutritional requirements is the heart and soul of customer service.

Contract management and oversight of ongoing food service contracts has become a major element of the Army food service program. To ensure that stated goals are consistently met, the roles of our enlisted food service personnel, noncommissioned officers, and warrant officers are expanding. These Soldiers serve as CORs and PAEs. In contingency areas this mission includes an element of force protection for the Soldiers eating in these facilities. Soldiers in COR/PAE positions often become the interface for the facility, enabling our food service personnel to remain a vital link in customer service. Diners rely on them for answers and for corrective action when problems are noted. This dual role places a heavy burden on the COR/PAEs because they may not be able to direct contractor performance. The primary duty of the COR/PAE is to assess, document, and report contractor performance. They must provide their contracting officers with credible information upon which to base decisions. Additionally, they must also respond to their chain of command.

How do you prepare for duty as a food service COR/PAE? The US Army Quartermaster Center and School (QMC&S), Army Center of Excellence, Subsistence (ACES) has undertaken the mission of training personnel to perform COR/PAE functions. They have developed and present training specifically directed towards contracted support of the feeding mission in contingency operations as well as garrison environments. This intense and comprehensive 5-day block of instruction details the duties, responsibilities, and limitations of CORs and other government personnel when dealing with food service contractors. The complex material provided during the Food Service Contract Management training is essential for preparing students to perform duties in contracted food service environments. The training also stresses the link between oversight duties and improved customer service and how the COR/PAE can positively impact the level of service for each diner.

Where is this training available? The ACES currently instructs all Food Service Warrant Officer Advanced and Basic Classes, and Food Service Management Courses at the QMC&S, Fort Lee, Virginia. They also provide on-site training to Soldiers preparing for deployments. Classes have been conducted at many continental US installations, as well as in Europe, Korea, and Camp Arifjan in Kuwait. ACES remains committed to supporting the Soldier and providing the best food service support whenever and wherever the requirement exists. POC is Richard A. Harsh, (804) 734 4832 (DSN 687) or richard.harsh@us.army.mil.

Field Manual (FM) 10-23 Undergoing a Comprehensive Revision

"Hey Food Operations Soldiers, let's get this field kitchen set-up" is repeated hundreds of times a year during field training exercises, contingency operations, and deployments around the world. Those words begin the process for the delivery of quality meals and safe, sanitary food service operations to Soldiers. Quality food service operations, whether at the local training area or half way around the world, begins with the understanding and use of the Army's basic doctrine for field feeding and its employment by food operations Soldiers. For the last ten years, FM 10-23 (Basic Doctrine for Army Field Feeding Class I Operations and Management) has provided food service personnel with fundamental doctrinal guidance. It is necessary to ensure that food service operations are planned, organized, available, and sanitary. The result is hot quality meals using the Army family of rations and organizational field food service equipment.

Since the publication of the FM 10-23 in 1996, the Army has undergone a force structure transformation. New and improved equipment, technologies and rations have impacted how we deliver quality subsistence to support troops in the field or during deployments. To ensure food service personnel are aware of the latest doctrinal changes and food operations guidance, the US Army Quartermaster Center and School, Army Center of Excellence, Subsistence (ACES) developed FM 4.20.2 (draft), Basic Doctrine for Army Field Feeding and Class I Operations and Management. This FM is currently in the review process at Army commands. The revised manual is scheduled to be completed, published, and fielded late this fiscal year.

The draft FM is an all encompassing doctrinal approach to Army field food service operations. Major areas include field feeding, subsistence sustainment, the Army family of rations, Class I supply planning and operations, field kitchen equipment and operations, contingency operations, training, and chemical operations. Additionally, FM 4.20.2 contains valuable tools to include deployment planning and evaluation checklists for use by operators and supervisors.

Commanders, military food service personnel, and food service contractors on the battlefield will find this comprehensive FM an operational tool that they are able to use on the ground or in the classroom. POC for this article and FM 4.20.2 is Mike Damico, ACES, (804) 734-4858 (DSN 687) or michael.damico@us.army.mil

New Interservice Training Requirements Organization (ITRO) Arrangement Joins Air Force Personnel with Petroleum/Bulk Fuel Quality Consolidated Training

On 12 February 2007, the US Army Quartermaster Center and School (QMC&S), Fort Lee, Virginia, began implementing one of the Department of Defense ITRO training arrangement initiatives. The Bulk Fuel Quality ITRO process began in May 2005. It is a joint fuel quality training program with the US Air Force that was coordinated in January 2007 at the Petroleum and Water Department (PWD) at the QMC&S. Currently, US Army Soldiers and US Marines conduct joint fuel quality/laboratory training at Fort Lee under an established ITRO arrangement. The first consolidated class, consisting of Soldiers (92L), Marines and Airmen, commenced on 12 February 2007. The Air Force personnel training portion lasts 16 days. The Army and Marine training lasts ten weeks and one day. The instructor contact hours and instructional content remains the same for each course of instruction. This ITRO is a "win-win" for both the Joint Warfighter and the Army!

POC is Marshall Jones, PWD, (804) 734-2810 (DSN 687) or marshall.jones@us.army.mil.

Training Aids, Devices, Simulators, and Simulations Conference

On 11 January 2007, the US Army Quartermaster Center and School (QMC&S) held the third annual Training Aids, Devices, Simulators, and Simulations (TADSS) Conference. The purpose of the conference is to identify TADSS requirements supporting selected Quartermaster systems and identify fielding and funding issues. These requirements affect the QMC&S's ability to train the student load and to make decisions to adequately prioritize, program, and resource institutional training.

Soldiers engage targets in a simulated environment.

An overview was presented of Quartermaster training systems issues to include support for the 23d Quartermaster Brigade as they transition the logistics warrior exercise to Fort A.P. Hill, Virginia. The effect that the Sustainment Center of Excellence table of distribution and allowances (TDA) will have on the schoolhouse as courses move to the Logistics University was addressed. The 23d Quartermaster Brigade discussed challenges and issues confronting them. These include the logistics warrior exercise, warrior tasks and battle drills, tension pneumothorax medical training aid, training improvised explosive devices, Engagement Systems Trainer (EST) escalation of force training scenarios, and Engagement Skills Scenario (ES2) computers with software.

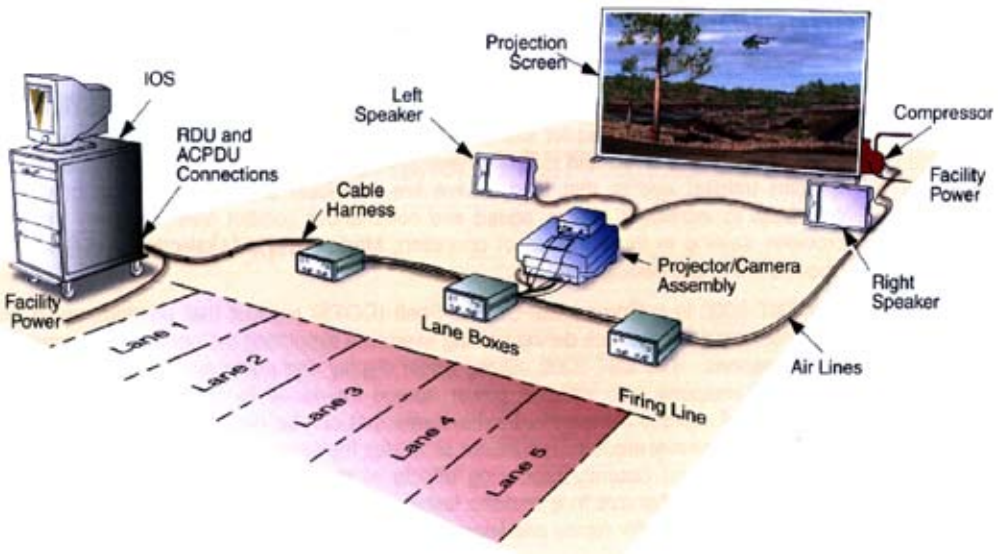
The Program Managers (PM) from Force Sustainment Systems (FSS) and Petroleum and Water Systems (PAWS) addressed technology that will impact/enhance training and sustainment of systems already in the schoolhouse. Scheduled technological updates and modifications for their respective systems were also emphasized.

The US Army Combined Arms Support Command provided an update on the High-Mobility Multipurpose Wheeled Vehicle Egress Assistance Trainer (HEAT). Of the 17 HEATs to be distributed within the US Army Training and Doctrine Command (TRADOC), the QMC&S will receive two (one in July 2007 and one in October 2007).

The TRADOC Program Integration Office-Virtual provided information on the Virtual Convoy Combat Trainer (VCCT) requirements/capabilities, program capability, and fielding. The VCCT is expected to be phased out by FY13 and replaced with the Recognizable Vehicle Tactical Trainer.

The Systems Training Integration and Devices Directorate, US Army Training Support Center (ATSC), Fort Eustis, Virginia, provided information on the update of fabricated TADSS devices for the QMC&S's Petroleum and Water Department (PWD). The ATSC also provided an update on Laser Marksmanship Training System fielding to

Fort Lee and funding support for TADSS items. Conference attendees also visited the Training Support and Simulation Center where they were provided an overview of TADSS operations.



Standard layout of a target simulation Engagement Skills Training 2000 System.

Items and issues discussed and requiring actions included:

- QMC&S PWD provided ATSC Fielded Devices Division, through Installation TSC, specifications on the TADSS they needed built. The Devices Division will determine what can be fabricated.
- Are weapons for armorer training in the QMC&S listed under Section 3 of the TDA considered TADSS devices?
- Laundry Advanced System operator and maintainer training is insufficient, causing performance rating and system readiness to decline in the area of operation.
- Tactical Water Purification Systems and the Lightweight Water Purifier require TADSS.
- Identify simulation requirements for Joint Precision Airdrop System.
- TADSS requirements as identified in capability documents for the heavy expanded mobility tactical truck tanker.
- TADSS for generators which are subcomponents of FSS and PAWs systems identified in capability documents.
- Interactive Multimedia Instruction System briefing to the QMC&S Commander on all FSS and PAWS systems.
- How does the QMC&S get Quartermaster training into video games?
- Tension pneumothorax medical training aid required for two tasks added to the common task training manual, but did not check for adequate training.
- Better Multiple Integrated Laser Engagement System that does not require calibration before use.
- EST escalation of force scenarios upgrade to Fort Lee's devices.
- Language skills training aids.
- PM promised computers to the 23d Quartermaster Brigade for ES2 scenarios.
- Military operations on urban terrain combat village requirements identified for Fort Lee.
- How is TADSS fabrication funding allocated through the Institutional Training Resource Model?

For more information on TADSS, contact Jan Couch, (804) 734-4970 (DSN 687) or jan.couch@us.army.mil.

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216th Quartermaster Battalion Soldiers load supplies on Army DUKW amphibious trucks on the Hagushi beaches, Okinawa, April 1945.

Illustration and Lineage by Keith Fukumitsu

35th Supply and Services Battalion

Constituted 8 March 1944 in the Army of the United States as the 216th Quartermaster Battalion.

Activated 15 March 1944 at Fort Devens, Massachusetts.

Inactivated 25 January 1949 in Korea.

Redesignated March 1951 as Headquarters and Headquarters Detachment, 35th Quartermaster Battalion and allotted to the Regular Army.

Activated 1 June 1959 in Germany.

Reorganized and redesignated 25 September 1961 as the 35th Quartermaster Battalion (organic elements concurrently organized from new and existing units.)

Reorganized and redesignated 2 August 1965 as the 35th Supply and Services Battalion. Inactivated 21 December 1972 in Germany.

Headquarters and Headquarters Detachment, 35th Supply and Services Battalion activated 15 October 1987 at Sagami General Depot, Japan.

Ryukyus Campaign
WWII Asiatic-Pacific Theater 1945

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From Fort Bragg to Antarctica, First Heavy Airdrop from C-17 into the South Pole. A Quartermaster's Unique Experience and Perspective.
See Article on Page 27.

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