

Feeding the Beast

by Maj Jeffrey M. Dunn

*'Each episode in war is the temporary result of a unique combination of circumstances, presenting a unique set of problems which require an original solution.'*¹

In the August 2003 edition of the *Marine Corps Gazette*, BGen Michael R. Lehnert and Col John E. Wissler provided a comprehensive view of Marine Logistics Command (MLC) in Operation IRAQI FREEDOM (OIF). The scope of the article prohibited an indepth discussion of MLC's air program and some of the challenges encountered in maintaining support to a fully mechanized Marine expeditionary force (MEF) over a 500-mile line of communications and supply. While there are myriad issues that should be discussed, this article will focus on three. First, force service support groups (FSSGs) do not have air programs (a dedicated training curriculum managed by an air branch) during peacetime. While infantry battalions are regularly manned with at least one air officer, FSSG units have historically gapped this billet in peacetime. This presents a steep learning curve once hostilities commence. Second, the Marine Corps needs to become more proficient at opening and operating forward operating bases (FOBs) if it expects to operate at extreme distances in the future. Third, the rhythm and tempo that had been achieved by the end of major combat operations was painfully achieved through trial and error. In the future we should enjoy that rhythm and tempo from day one. The logistical distribution experience in OIF should be captured and institutionalized.

The FSSG Air Program

The most important element in any logistics system is the people who make it work. Marines are the key to the execution of effective Marine logistics.²

I arrived at Logistics Support Area (LSA) Fox in late January 2003 during a typical Middle Eastern winter sandstorm. After a 2-

hour ride from Arifjan, the majority of which was spent inching along over broken terrain in the Kuwaiti desert, we found the "main gate" and were greeted by well-armed, goggled, bandanna-shrouded Marines. The camp that was destined to become the nerve center for everything that I MEF would consume during the coming conflict was nothing more than a few tents and some concrete Scud bunkers. On the previous day BGen Lehnert had hired me to be the MLC air officer. What the general did not tell me was that 2d FSSG had not had an official air program since Operation DESERT STORM.

We had approximately 7 weeks before Marine Corps lead elements would move through the berm and trench network separating Kuwait from Iraq. During those weeks an incredible transformation took place. The barren desert grew into a city, 2d FSSG evolved into a different creature known as MLC, and the battalions that had formerly been part of the garrison service support group became a wartime command proficient in the use of all assets belonging to the air-ground team. The MLC air program went through two distinct prewar phases—familiarization and education/rehearsal.

The familiarization phase during the weeks prior to the war consisted of internal, infrastructural, and external coordination challenges. The initial challenge that had to be overcome was that the staff had to grow accustomed to the existence of an aviation branch. Most of the leadership adapted quickly to the needs of MLC's new branch. These needs included radios, batteries, pyrotechnics, and transportation. It took time and effort to communicate these needs and priorities throughout all elements of the command. The challenges were analogous to growing pains. These growing pains resulted

in numerous misunderstandings that, at times, required colonel-level interventions.

With regard to infrastructure, Camp Fox had a preplanned helicopter landing zone (LZ) that had been designed with ammunition in mind. Due to explosive ordnance considerations, the zone was roughly 5 miles from the supply battalion where most things that were going by air would originate. This LZ, scheduled to be poured in mid-February 2003, was known as "Fox 1." In reality, the majority of supplies transported by air were not ordnance, so we created another LZ in supply battalion's area that we called Fox 2. This zone would never be poured concrete, but the convenience of the location many times outweighed its inferior condition. I renamed the zones "Sparrow" and "Sidewinder," respectively, in order to give them a distinctly recognizable nature. The Combined Forces Land Component commander required all LZs to be surveyed and certified by explosive ordnance disposal prior to being placed on the list of official usable LZs. This certification took some time.

External coordination was critical to success. MLC fell under U.S. Marine Forces, U.S. Central Command (MarCent), and I MEF owned most of the aircraft that we would initially use, so liaison visits to the different elements within the MEF made sense. We traveled all over Kuwait meeting with the wing operations center at Al Jaber, the rotary-wing Marine aircraft group at Ali Al Salem, and the I MEF air shop at Camp Commando. Two great things came from these visits: (1) the Marine Corps is small indeed, and I found that many of the Marines at these commands were either former classmates from Command and Staff College or former squadron mates from years gone by, and (2) I MEF did not even have MLC on their list of customers, a condition we rectified immediately.

The second and most painful phase of the prewar period was the education and rehearsal phase. My two major concerns were MLC's proficiency regarding the use of aviation and the knowledge level of the convoy commanders who would soon be headed north into Iraq.

MLC had little experience executing regularly scheduled air missions. The experience level of the helicopter support teams (HSTs) was almost nonexistent (certainly in desert environs), supply battalion and transportation support battalion (TSB) were not accustomed to hourly coordination with each other, and the combat service support (CSS) operations center was unfamiliar with air support. The way to fix these deficiencies was through intensive training. Fortunately,

the commanding general believed that air would become the MEF's only lifeline beyond the 300-mile mark. He allowed me to run at least one air mission every day. Many times it was just Class IX repairables bound for Camp Coyote to the north. While these supplies could have easily gone over land, it was essential that all elements of MLC became accustomed to the nuances of working frequently with helicopters. The repetition had several effects:

- The HSTs "cut their teeth" working with external slings in the 100-mile-per-hour downwash of a CH-53E, becoming comfortable with procedures after several weeks.
- The battalions became proficient at working with each other to get equipment and supplies into the zone, on time, every day.
- The MEF staff became familiar with MLC, and aircrews became accustomed to flying into Sparrow and Sidewinder. The result was that MLC seldom went without air support during the war.

The other major concern during the education and rehearsal phase was that none of TSB's convoy commanders had experience leading 50- to 60-vehicle convoys, on bad roads, with minimal communications, in a combat environment that had no real rear area. Col Wissler, Commanding Officer, TSB, gave me precious training time with his noncommissioned officers and officers. I focused on two major areas—fratricide prevention and "close air support for dummies." While the information presented was relatively simple, these leaders had never before been exposed to it. They rapidly grasped the concepts and techniques and, in turn, disseminated this information to their Marines. While the convoys were never in such extremis that their organic weapons were insufficient for the threat, several commanders did utilize the techniques to advise coalition airpower that they were friendly forces.

Opening and Operating FOBs

... war is the realm of uncertainty; three quarters of the factors on which action in war is based are wrapped in a fog of greater or lesser uncertainty.³

The MEF commander's logistics plan required the creation of FOBs at intervals along the planned routes of advance. These FOBs were planned at established Iraqi airfields and stretches of open, usable roads. Once secured, 3d Marine Aircraft Wing (3d MAW) would utilize these "airfields" to deliver all classes of supplies that could be further distributed from there. The first of these FOBs was established at a cratered airstrip near the town of Jalibah. One coor-

dination issue beyond the scope of this article is that the naming process for FOBs was not standardized. Every FOB had three separate names by which it was known. Jalibah, the Iraqi name for the first FOB, was also known as Riverfront and Viper. When discussing the field with ground forces we used Viper, but when dealing with aircrew we referred to the FOB as Riverfront.

Viper was the most difficult FOB to establish. It was the site for the northernmost point of the hose reel system that would eventually deliver fuel—at approximately 450 gallons per minute—from a Kuwaiti pumping station 130 miles to the south. It was also the first attempt by one of 3d MAW's Marine wing support squadrons (MWSSs) to open a FOB in Iraq. On the first night that Viper was open for business, 10 Marine KC-130 sorties were scheduled to deliver thousands of pounds of badly needed supplies. We experienced some considerable difficulties. In utter darkness two KC-130s flew north from Kuwait and landed at the unlit airfield. No one came out to meet the aircraft. A third KC-130 arrived in the vicinity at the predetermined interval but could not land because the small strip was too crowded. Fifteen minutes later, after orbiting within 10 miles of the field waiting for room to land, the large transport began drawing medium caliber enemy antiaircraft artillery fire. The two birds on the ground immediately "combat offloaded" their cargo (a procedure where the back ramp is opened, the cargo is unsecured, and the aircrew uses acceleration to force the cargo off the aircraft). All three aircraft returned to Joe Foss Field in northern Kuwait, and no further supplies were delivered that night. We could not establish communications with Viper and could not determine what had happened. The second night met with similar failure, and the MEF was depleting its reserves every minute. Line haul trucks were shouldering the load, but the distances were becoming prohibitive.

On the third night that Viper was "operational," the KC-130 executive officer and I went into the airfield on the first sortie. After wandering around the field looking through a set of night vision goggles for 20 minutes, I located the "airboss" (the officer in charge (OIC) of the airfield). Discussing the situation with him for a few minutes, it became clear that he had received no direction except "open the airfield" and had no idea where the arriving aircraft control group/departing aircraft control group (AACG/DACG), 1st FSSG's element responsible for offloading incoming aircraft, was lo-

cated. Together we struck out to find the elusive AACG/DACG. They were located at the east end of the field with a few HMMWVs and some sleeping bags. They had no forklifts and had not been briefed about the incoming aircraft. The airboss and the AACG/DACG OIC conferred, and the airboss agreed to provide forklifts for the night's sorties. I got back aboard the Hercules and had the aircrew pass the word to postpone the incoming transports for 1 hour in order to give the AACG/DACG time to prepare. After that incident, supplies began flowing into Viper in an orderly fashion.

This pattern repeated itself in lessening degrees at every FOB that the MEF opened. The MWSS and the FSSG were simply not connected in any valuable fashion, and neither of those elements was networked with the MAW. One of the benefits offered by MLC's operational position was that we could interject personnel into environments that were embroiled in the tactical situation, translate that situation, and communicate that to the tactical and operational leadership.

At Al Numiniyah/Three Rivers/Chesty, the embark officer and I inserted during the mid-day period. (We were operating day and night by this time.) We found the same lack of understanding and coordination that we saw at Viper. The personnel at Chesty were unaware that a massive resupply effort was scheduled to commence at sundown. In addition, the operational priority for that effort was artillery ammunition. In fact, the ammunition level was acceptable, but they were running out of food. The MWSS was sustaining infantry units with their own meals, ready-to-eat. The MLC embark officer remained at Chesty to prepare the AACG/DACG for the ensuing maelstrom of supplies. Having no communications, I boarded a southbound KC-130 and returned to LSA Fox in order to communicate the situation in person. On average, information about the forwardmost units' supply shortages was lagging by 48 to 72 hours.

The experience of opening FOBs in OIF showed that the Marine Corps possessed a robust capability, but we needed to refine it. The Marine wing support group and the FSSG each play vital roles in that capability. They need to practice interacting with each other on a regular basis. Also, all elements involved in the complicated process of opening and running an airfield must be fully aware of the plan. Persistent communications capabilities are essential to success.

Rhythm and Tempo in Distribution

One cartload of the enemy's provisions is equivalent to twenty of one's own, and like-

wise a single picul of his provender is equivalent to twenty from one's own store.⁴

Sun Tzu did not envision a world with Cable News Network or Fox News. He also did not foresee a situation where an army would be invading to liberate a people. Living off the land is a fine strategy for warfare when you care nothing for the indigenous population or how they feel about your conduct. In OIF every bean, bullet, Band-Aid, and repair part that Marine forces used had to come from coalition sources. Honoring this constraint, Marine forces had developed an impressive rhythm and tempo by the end of major combat operations. This fluid elegance was the result of efforts in two major areas and in spite of limitations in one. The ability to leverage national assets was a lesson learned late in the conflict. The "hub and spoke" plan was a simple and enormously effective way to distribute supplies, but also reached maturity late in the war. The ability of commands to track supplies and consumables is deficient and has not yet been solved.

MLC leadership realized that aviation was the only way to "feed the beast" outside of a 250- to 300-mile radius. While line haul trucking did what it could, the simple turnaround time for a single convoy at those distances was more than a week. What we had not fully grasped were our own limitations. We did not anticipate I MEF's usage rates and what that meant to lift requirements. At the height of the conflict, average daily fuel usage was 450,000 gallons.⁵ The MEF's artillery batteries were shooting 3,600 rounds of 155mm ammunition every night. As we became aware of the sheer volume of consumption we also realized that we did not have enough aircraft to satisfy the need. The only way we could accomplish the mission was to get outside help. Several different efforts within I MEF and MLC were evolving. The I MEF air shop worked to get some of our FOBs on the approved list of Air Force landing locations, and MLC routed requests through MarCent for strategic assistance. Once properly formatted, with the appropriate approval from Air Force authorities, these requests were responded to in expedient fashion. Almost overnight I found that the limiting factor was not airlift available but the ability to load the required supplies onto pallets fast enough to utilize the entire support being given to us. The bottleneck in the process had been the certifying of the FOBs and the general knowledge of how to request strategic air support.

After OIF, I traveled to Scott Air Force Base, IL to discuss the issue with Air Mobility

Command (AMC). AMC has units called mobile assessment teams that specialize in opening airfields, and did so in the western half of Iraq for the U.S. Army. Their approval is required at all airfields prior to C-17 or C-130 participation. A change request has been submitted to Marine Corps Combat Development Command Doctrine Division to add this information to *Marine Corps Warfighting Publication 3-21.1, Aviation Ground Support*, in hopes that individuals in the next conflict will have an easier time opening and certifying airfields for all players.

Many Marine transport pilots in OIF were reservists who flew for major carriers in their civilian careers. Some of them flew for United Parcel Service (UPS) and Federal Express (FedEx) and were surprised

that we had such a poor air distribution plan. The plan that they provided, modeled after those civilian behemoths, became known as the hub and spoke plan. Simply stated, the plan called for fixed-wing heavy transports to fly supplies en masse to a hub, and for helicopters to fly the supplies out along spokes to the "customers."

While the plan was not implemented until late in the war, it worked! Our distribution became much more efficient, and our utilization became more effective. The hub and spoke plan should be standardized and incorporated into Marine Corps doctrine.

The main area where Marine Corps logistics is deficient is in that of tracking requests and items throughout the delivery process. Doctrinally, customers are supposed to pull logistics from the system on an "as needed" basis. The speed of the OIF battlefield, the volume of consumption, and the less than optimal communications between the operational and tactical levels demanded that MLC push supplies based on anticipated usage rates. While this was effective to a certain extent, the efficiency of this method was terrible and resulted in numerous "iron mountains" of supplies spread throughout the battlespace; the waste was enormous. Again, UPS and FedEx are admirable models. Every item being shipped by those companies is bar coded and tracked extensively from request to delivery. There are efforts within the Marine Corps to emulate those models, but those efforts demand a higher level of attention and funding, combined with the proper level of training and education.

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Conclusion

In OIF the Marine Corps demonstrated the ability to fight a major war well beyond the doctrinal distances considered as the extended littorals. The critical requirement in accomplishing that successfully was the ability to sustain the force at great distance from the sea. While MLC accomplished that mission at the operational level, three areas of CSS require improvement in order to realize efficient and effective sustainment over great distances. First, the FSSGs need to possess air programs during peacetime. The cold start of a division-level air program in a combat zone is a difficult undertaking. By manning the FSSGs with an air officer at all times, the Marine Corps will ensure that CSS units are familiar with air operation. MAWs will become accustomed to supporting the FSSG and will garner valuable training in the process. Second, the Marine Corps must routinely practice opening FOBs. The Combined Arms Exercise (CAX) would become infinitely more valuable if units were required to flow into the Twentynine Palms area in a tactical manner. MWSS and FSSG could start the process by literally opening the expeditionary airfield (EAF), flowing in all of the supplies that the different units are going to consume during the CAX, and then sustaining those units through the EAF for the duration. Finally, force-level logistics units must become adept at leveraging strategic-lift assets, must institutionalize hub and spoke procedures, and must

incorporate an electronic method of tracking all items of supply from request to delivery. During exercises like CAX the Marine air-ground task force should plan to incorporate strategic-lift assets when they are available and to simulate the request process when they are not. The hub and spoke method will work in the CAX environment as well. Lastly, the Marine Corps must accelerate plans to incorporate a bar code method of tracking supplies.

The Marine Corps was successful in OIF because of heroic efforts by all of the participants. So many challenges were overcome by the mindset that Marines do whatever it takes to accomplish the mission. We must not rely solely on our human capital to conquer those challenges. The Marine Corps will be asked to fight that deep again, and we must be ready.

Notes

1. *Marine Corps Doctrinal Publication 4, Logistics*, United States Government, 1997, p. 25.
2. *Ibid.*, p.100.
3. Von Clausewitz, Carl, *On War*, edited and translated by Michael Howard and Peter Paret, Princeton, NJ, 1976, p. 101.
4. Sun Tzu, *The Art of War*.
5. Lehnert, BGen Michael R. and Col John E. Wissler, "MLC: Sustaining Tempo on the 21st Century Battlefield," *Marine Corps Gazette*, August 2003.



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