

Sustaining the Chaos of LSCO: *FARP Operations*



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“You will not find it difficult to prove that battles, campaigns, and even wars have been won or lost primarily because of logistics.”

— GEN Dwight D. Eisenhower

Battle of Agincourt

In 1415 during the Hundred Years War, the French Army faced King Henry V's English expeditionary force on home terrain in Agincourt. While France enjoyed interior lines of communication, better equipment, and numerical superiority, they were ultimately defeated. The French failed to adapt to the conditions of the day, they failed to modernize their warfare, and they fought the British using tactics and techniques that had worked in battles past, all ultimately leading to their demise.

As the U.S. Army continues to modernize and shift focus to large-scale combat operations (LSCO), it is critical that we innovate every warfighting function and consider relevance with an eye toward the future of warfare. Specific to the sustainment warfighting function, we must re-look our doctrine, training, manning, and equipping of our brigade combat teams (BCTs) and push logistical capabilities, such as forward arming and refueling points (FARPs), as far forward as possible. Because sustainment was the bill-payer for BCT 2020, units now lack critical organic logistical capabilities, and the echeloned capability cannot keep up with the demand of troop transportation, water purification, refueling, and the list goes on. If we modernize our force without a critical eye toward how we sustain the LSCO fight, history warns this oversight might cause our Army to suffer the fate of the French at Agincourt.

Desert Storm – The “Super FARP”

On 17 December 1990, the 101st Airborne Division rehearsed the “Super-FARP,” an innovative fusion of divisional Class III distribution assets (as well as air traffic controllers and pathfinders) capable of refueling a single lift of 66x UH-60s and 30x CH-47s in as little as 43 minutes. This incredible synchronization of capability allowed the 101st to assault two infantry brigades, the division assault command post, and the division support command (DISCOM) forward into Iraq on 24 February 1991, the morning of G-day. With this synchronization, the 101st struck enemy targets in zone and established a foothold for follow-on operations in Desert Storm. At the time, this was the largest air assault in history, but it was against an undisciplined, ill-equipped Iraqi military that proved no match for the U.S. and its allies. While this singular capability proved decisive for the division to project combat power, its utility in today's modern battlefield against peer competitors might not result in such resounding successes. Just because it worked in the past does not necessarily mean it will be repeatable; the Super-FARP concept relevant in AirLand Battle has little chance of survivability in 21st century LSCO. However, just as DISCOM and



Photo by MAJ Robert K. Wright Jr.

Soldiers refuel a UH-60 Black Hawk helicopter at the 101st Airborne Division's rapid refueling point in the Northern Province of Saudi Arabia on 4 February 1991.

the 101st Aviation Brigade spearheaded the Super-FARP concept in the '90s based on the BCT ground tactical plan, it is critical that the tactical force continues to drive innovation for the future.

Transition to LSCO

Since 2001, the U.S. Army has become quite proficient in counterinsurgency and counterterrorism operations. During the past two decades, however, several of the principle peer state threats to the U.S. and its allies have taken note and modernized their militaries, while the U.S. consumed resources to win decisively in contact. Department of Defense leadership took note of the need for a generational shift when they authored the 2018 National Defense Strategy (NDS). The 2018 NDS focused on future modernization for LSCO against threats such as Russia, China, Iran, North Korea, and violent extremist organizations. Like other U.S. Army divisions, the 101st Airborne Division (Air Assault) quickly shifted the focus of its collective training towards LSCO, while also supporting the Army's modernization strategy. The 101st is known for its ability to strike from distance using helicopters to execute vertical envelopment, but with the resulting extended operational reach, aviation assets rely heavily on forward sustainment operations.

The 101st Combat Aviation Brigade (CAB) was designed to be self-reliant in terms of extending its operational reach through FARPs established by its organic battalion support companies. FARPs are decisive to the CAB (and the division), but those established by the CAB are also large, cumbersome, slow to move, and generally emplaced rearward in the consolidation area. In an LSCO fight, FARPs are desirable, easy targets for the enemy, and it is widely assessed that killing a FARP is easier and more effective than shooting at low-flying, highly maneuverable aircraft. The aviation brigade does not have enough redundancy to make its organic FARPs enduring and survivable in the battle zone; thus, we need to be innovative, creative, and bold in how we maintain our deep capability for the division. BCT FARPs would naturally be farther forward and would allow aviation assets to continuously fight forward. BCT forward support companies (FSCs) and brigade support battalions (BSBs) are the first to push resupply forward as the ground lines of communication open, and having a BCT FARP extends operational reach and creates multiple dilemmas for the enemy. BCT FARPs must be trained, resourced, and ready in the event the CAB FARP is destroyed or the division needs to extend operational reach quickly. Failure to adapt to the new era of combat will leave FARPs, Army Aviation, and ultimately our ground forces to suffer the fate of the French — too big, too slow, too predictable, and too vulnerable for the modern era of warfare.

One Standard

If the CAB FARP is too large and cumbersome or positioned too far rearward, the LSCO fight will outrun the CAB's ability to refuel and extend its operational reach, ultimately hindering the air assault capability from the 101st. Identifying



Photo by CPT Kristoffer Sibbaluca

The Task Force Shadow operations officer oversees a forward arming and refueling point operation at Bagram, Afghanistan, on 4 August 2018.

this LSCO capability gap, the 101st Airborne adapted and directed its BCTs to purchase the necessary FARP equipment and to certify all of their 92F petroleum specialists to pump aviation-grade fuel. Each BCT was to train and certify its BSB's alpha companies and FSCs to set up, establish, filter, certify, and execute a two-point Heavy Expanded Mobility Tactical Truck Tanker Refueling System (HTARS) FARP in less than one hour.

It is commonly misperceived that the aviation support battalion's distribution company and battalion FSCs in aviation brigades have different fueling capabilities than BCT BSBs. The only difference, however, is the filtration standards adhered to by the CABs. In fact, all 92Fs are trained in both ground and air fueling operations during their Advanced Individual Training (AIT), but these skills are perishable. It is imperative that 92Fs continue to train to the standards required of circulating and testing fuel to aviation standards and actively train with aircraft per Army Techniques Publication (ATP) 3-04.17, *Techniques for Forward Arming and Refueling Points*. It will take commander emphasis to ensure that FARP training is an enduring change in BCT sustainment training; and to gain commander-level engagement, FARP operations must be added as a primary mission essential task list (METL) task for alpha companies and FSCs. In the 101st, we are changing the support structure and culture. FSCs are ordering hoses, fittings, nozzles, Aqua Glo test kits, filters, spares, and safety equipment, and BCT Soldiers are getting time and repetitions pumping fuel into live aircraft. In the 101st, EVERY 92F pumps aviation-grade fuel!

Training the BCT Fuel Distribution Team

By certifying every brigade to establish and execute FARP operations in support of aviation operations, the division is expanding options available to commanders. The 3rd BCT, 101st Airborne Division (Air Assault) took the lead on executing training with CAB expertise and oversight to establish a FARP validation program for all of the division's 92Fs. This nested well with their innovative concept of support that challenged doctrine by making the brigade support area (BSA) as small as possible and massing sustainment personnel and capabilities forward to the FSCs. As GEN Mark A. Milley stated during his 2016 Association of the United States Army speech, "The battlefield will be non-linear, compartmented, and units will have non-contiguous battle space with significant geographical separation between friendly forces. This type of battlefield will place a high premium on independent, relatively small formations..."¹ Heeding this sage guidance, the Rakkasans adapted to limited echeloned communications, rapid aggregation and disaggregation, and constant movement to enhance survivability. Keeping the BSA small, augmenting FSCs with personnel and equipment capabilities, and extending the aviation operational reach will not only present additional challenges to the enemy, but will prevent sustainment from being outpaced by the operational demand.

In order to implement its concept of support, the 3rd BCT's 626th Brigade Support Battalion deliberately implemented a training glide path to incrementally train its 92Fs. The training began first with Alpha Company, 626th BSB executing multiple iterations of familiarization and hot refueling operations, and ultimately being validated by the CAB safety officer. Once validated, 92Fs in Alpha Company will then conduct training with the FSC fuel teams until each battalion fuel team is validated to conduct independent FARP operations. Although the training can be as simple as refueling aircraft after an Air Assault School support mission, the 92Fs collaborated with the 101st CAB to provide the FARPs for two aerial gunneries. This provided realistic training that involved rearming, refueling, sling loads, and multiple iterations. In the near future, Soldiers will conduct a validation exercise, where they will be given a date, time, and grid coordinate to tactically convoy to, find cover and concealment, establish communication with the

aviators, and expeditiously conduct FARP operations under the security of organic gun-truck crews. This culminating FARP operation will validate that Screaming Eagles outside of the CAB can safely and independently provide FARP capabilities, extending the division's reach throughout the battlefield, giving the commander multiple options while presenting the enemy multiple dilemmas.

LSCO Concept of Support

In response to a fiscally constrained and reduced force cap, BCT 2020 drastically reduced the sustainment equipment and personnel at BSB and FSC echelons. The *Army Sustainment* Magazine article, "BCT 2020 Logistics: Where the Rubber Meets the Road," explains that the BCT 2020 sustainment force structure is not suitable to sustain the support requirements of the BCT, and as a result, a BCT must rely on the division support brigade (DSB) to provide any support requirement gaps.² BCT 2020 was designed prior to the transition to the LSCO fight, and the modified table of organization and equipment (MTOE) of the BSB and FSCs has continued to decrease and pull capabilities from brigades. Consolidating sustainment assets in the rear with the DSB cannot reasonably sustain or keep pace with the LSCO fight; the focus must shift to forward sustainment. On a battlefield where lines of communication between echelons will be challenged and the ability to move rapidly every few hours is the difference between life and death, it is necessary to have as many support capabilities forward as possible to keep pace with demand. Adding BCT FARP capability throughout a division supports this concept. BCT MTOEs need to authorize both the personnel and equipment to support ground and air fuel requirements. Although 101st BCTs are experimenting with support structure changes to better support the LSCO fight (and training to execute FARPs), it is imperative that the MTOEs also change for support personnel and equipment to keep pace.

The infantry brigade combat team (IBCT) MTOE has shifted away from M978 Heavy Expanded Mobility Tactical Truck (HEMTT) fuelers in order to account for reduced manning and now authorizes Tank Rack Modules (TRMs).

The MTOE for Alpha Company, BSB replaces 5x M978s for TRMs and in the FSC formations, TRMs have completely replaced M978s. Alpha Company, BSB is currently



Photo courtesy of U.S. Army Acquisition Support Center

The Pump Rack Module and Tank Rack Module

*From this day to the ending of the world,
But we in it shall be remember'd;
We few, we happy few, we band of brothers;
For he to-day that sheds his blood with me
Shall be my brother; be he ne'er so vile,
This day shall gentle his condition;
And gentlemen in England now a-bed
Shall think themselves accursed they were not here
And hold their manhoods cheap whiles any speaks
That fought with us upon Saint Crispin's day*

— William Shakespeare
Henry V, 1599

authorized 5x TRMs, 5x M978s, a HEMTT Tanker Aviation Refueling System (HTARS), and 10x 92Fs. Not only is this not enough personnel to simultaneously resupply FSCs while also executing FARP operations, but TRMs can only provide a FARP capability with an additional pump such as a Pump Rack Module (PRM) or the pump that would come in an Advanced Aviation Forward Area Refueling System (AAFARS); additional pump capability is not authorized in an IBCT. It is clear from the authorization of the HTARS that IBCTs are intended to support FARP operations, but now the LSCO problem set requires the ability to do both ground and air refueling missions simultaneously — for both planned air assaults and contingency situations. The 3rd BCT, 101st Airborne Division recommends an equipment MTOE change for Alpha Company, BSB to 5x TRMs with an AAFARS, 5x M978A2s and 1x M969A3, and a personnel MTOE change to 26x 92F, 1x 92L (petroleum lab specialist) and 1x 923A (petroleum systems tech). These equipment and personnel additions would allow for Alpha Company to execute both air and ground refueling operations. FSCs have also lost their M978 HEMTT fuelers, which have been replaced entirely with TRMs. Every FSC except for Echo Company FSC is MTOE'd 4x TRMs, but Echo Company is only authorized 3x TRMs, which is a significant mismatch to their engineer equipment fueling needs. The 3rd BCT, 101st recommends that each FSC be authorized 4x TRM, 4x M978 fuelers, HTARS, and

8x 92F. The addition of equipping the M978 fuelers back into the FSC formation would allow flexibility at the forward line of troops and would free up the LHS platforms to transport other necessary commodities such as Class V. Again, in order to keep pace and give commanders options, BCTs must be equipped and manned to refuel both ground and aviation simultaneously in an LSCO fight.

Only when the sustainment warfighting function matches its capabilities to the LSCO fight will there be an enduring culture shift. In the meantime, the 101st continues to take a modernized approach to how it extends its operational reach using decisive maneuver and innovative and adaptive logistics to assault the Screaming Eagles into the fight. The Screaming Eagles of 1944 adopted the moniker as a "Band of Brothers" who, like the English of 1415,

also jumped into northern France and fought an enemy using adaptive tactics supported by innovative logistics to win the day. Today's air assault troopers stand in the shadows of our forefathers ready for our next rendezvous with destiny. We continue to train new tactics, modernize our equipment, and seek innovative ways to operate from a distance to strike like an Eagle!

Notes

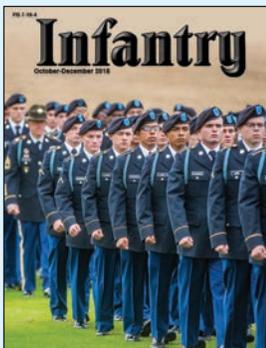
¹ GEN Mark A. Milley, speech during AUSA Eisenhower luncheon, 4 October 2016; accessed from http://wpswps.org/wp-content/uploads/2016/11/20161004_CSA_AUSA_Eisenhower_Transcripts.pdf.

² "BCT 2020 Logistics: Where the Rubber Meets the Road," *Army Sustainment* (November-December 2016).

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