Outfitting for the Fight Ahead

Purchasing expeditionary systems for an expeditionary fighting force

by 2ndLt William S.L. Murphy

2330 off the coast of North Africa, conflict has erupted in a littoral city, and American lives are at risk. Marines of the 22d MEU are put on standby to conduct a non-combatant evacuation. The mission commander will have to decide how the Marines will gain access to the city and by what means they will evacuate the civilians. What aircraft are available for close air support? Where can rotary-wing assets land? Can the landing team use ground vehicles? At that moment, the mission commander should not have to question whether the systems at his disposal are the most effective to accomplish the mission. Conflict is inevitable. As America's expeditionary force-in-readiness, the Marine Corps must be prepared to respond to crisis at a moment's notice, and the weapons systems it purchases must be ready too.

In *Out of the Mountains*, David Kilcullen describes the conflict climate in terms of four drivers: "population growth, urbanization, littoralization, and connectedness."[1] He goes further by stating that, as of 2012, 80 percent of the world's population lives within 60 miles of the sea (the littoral). Instead of just quoting this fact on countless PowerPoint presentations, the Marine Corps must fully accept its consequences and must prepare for the full spectrum of conflict in the urban littorals. This means that the vehicles, weapons systems, training, and strategy we use must be effective in that environment. The question is, are they?

>2ndLt Murphy was a member of Fox Company, 2d Platoon, TBS when he wrote this article.

The F-35B is not a premier close air support aircraft. *(Photo by Sgt Lillian Stephens.)*

The Marine Corps is in the process of procuring two major systems: the joint light tactical vehicle (JLTV) and the F-35B. Both are formidable vehicles with a litany of features that would make previous generations drool. These vehicles are replacing aging predecessors, the HMMWV and the AV-8B Harrier and F-18, respectively. All three of these systems have been in active service for over 20 years, 30 in the case of the HMMWV. The decision to develop and replace these aging systems came out of time and experience over the last 15 years of conflict.

Iraq and Afghanistan had an enormous impact on the American military.[2] More than ten years of conflict has changed the strategy used in urban warfare and altered the vehicles in which Americans go to war. The wars in Iraq and Afghanistan, while very different, showed us that a determined insurgency can inflict tremendous casualties on our forces using the improvised explosive device (IED). The IED is not a new weapon. It can be built using a variety of materials, making it an ideal weapon for insurgencies. IEDs have been around in numerous forms for decades and have been used around the world from Northern Ireland to Lebanon, Chechnya to Vietnam, and, more recently, in Paris. The destruction wrought on the coalition's unarmored vehicles in the early years of the Iraq war was horrendous. Thin-skinned HMMWVs were easy targets for insurgents looking to attack American forces.

In response to this threat, the United States and other coalition countries began purchasing mine resistant ambush protected vehicles (MRAPs). This new

generation of armored personnel carriers boasted V-shaped hulls, heavy armor, and thick ballistic glass, making them some of the safest vehicles for coalition troops. However, the early MRAPs were large, heavy, and not capable of off road maneuverability. Since then, designs have been refined. By 2009, the Army and Marine Corps were outfitting troops with the Oshkosh MRAP all-terrain vehicle (M-ATV). Smaller than most other MRAPs, the M-ATV gave soldiers and Marines protection, mobility, and good off-road performance. Hoping to build off of that success, the Army and Marine Corps have recently awarded Oshkosh the contract to replace to aging HMMWV with the JLTV, an even lighter MRAP.

The JLTV is a well-protected and powerful vehicle. According to Oshkosh, the JLTV will offer the same under belly blast protection of an MRAP while having the off-road mobility of a HMMWV.[3] At over 14,000 pounds, the JLTV will be twice the weight of a HMMWV, as well as being wider and taller. The larger size of this new vehicle has implications for an expeditionary force, such as the Marine Corps. It can provide an unparalleled level of mobility and protection if the vehicle can get to the battlefield or wherever a crisis arises.

The JLTV is a replacement for the MRAP. *(Photo by Cpl Austin Schlosser.)*

The size of the JLTV, however, limits its mobility in numerous environments, particularly third world, littoral cities where the Marine Corps will most likely deploy.

Narrow streets, low electrical wires, and ineffective port facilities all present large logistical and operational issues for the JLTV. Going back to the introduction scenario, Marines from the 22d MEU receive an urgent call and are preparing for a non-combatant evacuation mission in a dense urban area 60 miles inland from the Mediterranean coast of North Africa. Due to the time sensitive nature of the mission, a ground convoy to the evacuation site is infeasible. The civilians are in a non-governmental organization headquarters deep inside the ancient section of the city. There are no hasty landing zones for the Marines to land helicopters. Power lines hang ten feet above the street, dangling low, presenting dangerous obstacles for a turret gunner nearly nine feet above the ground. The streets are narrow and cluttered with obstacles. Although fictional, this could describe dozens of cities in the region and many more worldwide. The Marines depart the USS *Wasp* aboard MV-22s and CH-53s and land on the closest available landing zone several kilometers from the non-governmental organization's headquarters. Analyzing the urban terrain, it is decided that the JLTVs are too large to effectively maneuver down the city streets, even if they could be effectively transported by the helicopters. The Marines must navigate on foot through a potentially hostile environment, organize the evacuees and use unarmed, civilian vehicles to move hastily back to the landing zone. That mission would have to be completed without medium or heavy machine guns, while possibly being harassed by mounted enemy infantry.

... as an expeditionary force, we will not get to choose when we fight, evacuate, keep the peace, or provide humanitarian assistance. We need the ability to deploy vehicles from helicopters, planes, and ships, giving Marines maneuverability and fire power in urban areas.

This type of scenario is not hard to imagine—many littoral cities are not built to accommodate modern vehicles. Large, armored vehicles would be unable to maneuver through a densely packed and poorly constructed urban area. Do not take this to mean that armor and even tanks do not have a place in urban warfare; they do. Finding a solution is not easy. The JLTV is the product of a great deal of work to shrink the M-ATV and create an effective solution to the IED threat. However, as an expeditionary force, we will not get to choose when we fight, evacuate, keep the peace, or provide humanitarian assistance. We need the ability to deploy vehicles from helicopters, planes, and ships, giving Marines maneuverability and fire power in urban areas.

One vehicle capable of easily maneuvering within an urban environment is the Jeep ground mobility vehicle. It comes in a variety of armed and personnel carrying configurations and is still capable of fitting aboard a CH-47. In comparison, the CH-53 has a 2.5-foot wider cabin, the same cabin height, and could accommodate the Jeep ground mobility vehicle or a similar system. Despite providing much less protection from IEDs, they are capable of bringing fire power and maneuverability to the tightest urban environment. Having this type of capability on a MEU would give mission commanders the flexibility to respond to a greater variety of missions, confident that their Marines would have the tools necessary to accomplish the mission and return home.

On the other end of the spectrum is the F-35B. A state of the art aircraft, the F-35B offers advantages in speed, stealth, firepower, and command and control capabilities over the current Marine aircraft. However, given that the role of Marine Corps aviation is to "support Marines on the ground," the fact that the F-35B will not reach full close air support ability until 2022 presents a serious problem.[4]

According to a 2015 military.com article, the F-35B will not have the necessary software to deploy the latest generations of close air support munitions, the Small Diameter Bomb II (SBDII). Furthermore, the aircraft touts numerous features that are more at home in an air-to-air conflict rather than supporting troops on the ground. If the aircraft was designed to counter air-to-air threats more than support the GCE, then it does not fulfill Marine Corps aviation's mission as it should.

In an effort to dispel the image that the F-35B is not a premier close air support aircraft, the Air Force will hold a head-to-head competition in 2018 against the best close air support jet in the Air Force's arsenal, the A-10. While the results of this competition will undoubtedly be interesting, one wonders if there were other platforms available that could have been a better replacement for the Harrier than the F-35B. Shouldn't this plane should be capable of slow flying speeds, low altitude missions, carrying the necessary munitions, and tailor-made to support the GCE? Perhaps not, but there are those who will always wonder if this aircraft was purchased because it best suits the Marine Corps' mission or because it was the most technologically advanced.

A-29s were delivered to Afghanistan in 2016. *(Photo from Wikimedia.org.)*

There are many proponents of an aircraft that is dedicated to close air support. Two outstanding examples of this kind of aircraft are the Embraer EMB 314 Super Tocano, now designated the A-29, and the Beechcraft AT-6 Wolverine. Both aircraft are proven turbo-props, capable of carrying a wide variety of armament, and are already being used to combat insurgencies around the globe. In the case of the A-29, the United States is already purchasing and providing these aircraft to the Afghan Air Force to fight the Taliban.[5]

This has not been meant as an attack article against the new systems developed and purchased by the Marine Corps. Rather, it is meant to begin a thoughtful discussion about aligning strategy and mission capabilities with system development and procurement. There is no doubt that the new capabilities that are coming into production will greatly help with some missions, but it is questionable whether they will help the Corps face the full spectrum of conflict. Will the JLTV work as well delivering humanitarian aid and keeping the peace in Haiti as it does fighting terrorists in Fallujah? Will the F-35B support Marines on the ground as well as it will combat other aircraft?

This article begs to ask the question, "Are we buying vehicles to fight the last war instead of the next war?" Whatever the answer may be, no purchase should be made without thinking this answer through.

Notes

1. David Kilcullen, *Out of the Mountains*, (New York: Oxford Press, 2013), 28.

2. Ibid., 26.

3. Oshkosh Defense, "Joint Light Tactical Vehicle (JTLC)," (2014), accessed at http://oshkoshdefense.com.

4. Kris Osborn, "F35 Will Not Reach Close Air Support Potential Until 2022," *Military.com*, (9 March 2015), accessed at http://www.military.com.

5. Richard Sisk, "After Delays, A-29 Attack Aircraft to Arrive in Afghanistan in 2016," *Military.com*, (28 December 2015), accessed at http://www.military.com.