

The Light Motorized Infantry Company

Operating in the future
by Capt Michael Hanson

According to a 2005 RAND Corporation study, “Motorization refers to the use of internal combustion engines to enhance the mobility of an army, specifically its trucks, motorcycles, and cars.”¹ Armies have recognized the potential for the rapid movement of troops that motorization offers since the battle of the Marne in 1914 when hundreds of taxi cabs were commandeered to transport thousands of French soldiers to the front to counterattack and halt the German drive on Paris. During the blitzkrieg campaigns from 1939–1941, the Germans revolutionized this concept by using motorized assets to rapidly transport infantry to decisive areas in the front and enemy’s rear before the enemy could react. Since then, armies have developed and refined

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other means of rapidly moving infantry forces, such as the mechanized and air assault formations organic to the MEU and similar concepts across most military organizations.

Other than for screening purposes like the combined anti-armor teams found in infantry battalions and the scout platoons found in tank battalions, motorized assets will most often be used to transport follow-on forces such

as artillery, logistics, and reinforcing infantry units in a campaign against a near-peer enemy. It is rare in this day and age to see traditional motorized assets (trucks, cars, and motorcycles) at the spearhead of an attack. Though in a low intensity conflict, such as the counterinsurgency operations of the last nearly two decades, motorization can offer the most economical way to move troops around an area of operations, and units may see their complement of wheeled motor vehicles rise precipitously.

Despite the conventional wisdom and task organization that typically places the more armored and up-gunned vehicles closer to the enemy, motorization still offers unique advantages to be exploited in a maneuver warfare environment. Specifically, motorized infantry has a key role to play in offensive and defensive operations in the physically austere environments that future battles will play out in. In fact, the advantages in maneuver warfare that the employment of motorized infantry offers to our forces are better today than they have ever been. However, as a force, the Marine Corps has gone the wrong way with the concept of motorized infantry, and for years, we continued to move down this incorrect path—though there is hope.

The Jeep family of four-wheeled motorized vehicles, initially introduced in World War II, culminated with the M151, which first saw service in Vietnam. With a curb weight of 2,400 pounds, it was compact and light enough to be transported within a CH-53 Sea Stallion helicopter and could carry up to four troops.² In 1983, the four-wheeled HMWV entered ser-



The Norwegian Viking Battalion staged their vehicles during Exercise SABER STRIKE. (Photo provided by author.)

vice with the U.S. military and remains in use today. The basic AM General M1152 troop carrying variant is designed to carry up to eight passengers and has a curb weight of 4,950 pounds.³

During Operation IRAQI FREEDOM, the Humvee proved to be especially vulnerable to improvised explosive devices and the DOD quickly developed and fielded the Mine-Resistant Ambush Protected (MRAP) family of vehicles to replace the Humvee. These included the BAE Caiman, RG-31, RG-33, International MaxxPro, and Force Protection Cougar. Some of these vehicles existed in a 4x4 wheel configuration, while others were fielded in a 6x6 configuration. At the low end of troop-carrying capacity, the Cougar 4x4 could transport six troops,⁴ while the RG-33 could carry up to fourteen.⁵ As these vehicles were specifically designed to protect the troops they carried, they are thoroughly armored and thus, very heavy. For example, the Cougar 4x4 variant has a curb weight of 34,000 pounds,⁶ while the Cougar 6x6 version has a curb weight of 42,000 pounds.⁷ The MRAP family of vehicles proved satisfactory in the relatively flat terrain of Iraq with its extensive network of roads. Ironically because of their poor off road performance, these vehicles were largely confined to the very roads where the majority of improvised explosive devices were.

By the time the Marine Corps shifted back to Afghanistan where terrain was more rugged and roads were either of poor quality or non-existent, it became apparent that the Iraq war vintage MRAP's would be insufficient.⁸ Thus, the Oshkosh MRAP All-Terrain Vehicle (MATV) was developed and fielded to provide the protection of the MRAP with the "off road mobility" of the Humvee.⁹ With a curb weight of 35,450 pounds and a carrying capacity for 11 troops, the MATV 4x4 successfully fulfilled its role for the Marine Corps in Afghanistan and currently operates in Syria.

Though the MATV accomplished its assigned mission, it was only ever an interim solution to an immediate problem. Ever mindful of the expeditionary nature of the Marine Corps



Polaris Sportsman vehicles were used during SABER STRIKE 2017. (Photo provided by author.)

and the continued growth in the size of MRAPs and their continued inability to fit aboard amphibious ships, in 2009 Commandant of the Marine Corps, Gen James T. Conway, wondered aloud if the long awaited replacement for the Humvee, the joint light tactical vehicle (JLTV), was even worth procuring if it got to be too big.¹⁰ Taking a step further, Gen Conway declared that the Marine Corps, "will not buy a vehicle that's 20,000 pounds."¹¹

In 2015, the Oshkosh Light Tactical All-Terrain Vehicle (LATV) was announced as the winner of the nearly decade long JLTV program. With a 14,000 pounds curb weight, the LATV meets Gen Conway's requirement with three tons to spare. Though the first LATVs reached the Fleet Marine Force in 2019,¹² it will be several more years before the Marine Corps receives the 9,091 it ordered.¹³ However, the LATV "high back" utility variant carries no more Marines than the HMMWV "highback" it is replacing.¹⁴ As such, it is not a vehicle for moving large numbers of infantry and is more suitable in the combined anti-armor teams and scout platoons.

After years of fielding multiple variants of heavy vehicles, the Marine Corps surprised a lot of Marines when in 2016 it ordered 144 light weight Polaris MRZR D4 4x4s for service with

its infantry regiments.¹⁵ The MRZR's main purpose is as a utility platform to support logistics at the company level, basically to transport ammunition and casualties to and from the scene of action.¹⁶ This civilian market dune buggy can carry up to 4 troops and 1,500 pounds of gear¹⁷ and can fit inside a MV-22 Osprey or a CH-53 Sea Stallion.¹⁸ With a curb weight of 2,100 pounds and its expeditionary entry capability, the MRZR D4 is a step in the right direction but it does not go far enough.¹⁹ We need more light weight, nimble, quick moving, and expeditionary platforms like the MRZR. But we need lots more, enough to rapidly move a significant number of infantry to the decisive point of battle and to sustain this force in action.

What we need is the Polaris Sportsman 570 6x6 ATV. This machine is basically a civilian market quad but with six wheels and room for two. Rather than those ATVs one would see at an off road racetrack or recreational driving course, the Sportsman is made for work. Whether that is hauling heavy items around the ranch or bringing large game back from a successful hunt, the six-wheel drive Sportsman is designed to carry a 1,115 pound load and has a hitch tow rating of 1,500 pounds.²⁰ It is designed to go far as well, its 6.75 gallon fuel capacity can take it 130 miles

on one tank of gas.²¹ Finally, its 1,075 pound dry weight and 116-inches long by 49-inches tall and 48-inches wide dimensions make the machine highly expeditionary when one considers the potential of loading these aboard helicopters or landing craft.²²

The vehicle alone is not enough, however. To truly make a difference, we need a company table of organization that exploits the unique advantages that this equipment offers. A few here and there to support logistics and general utility purposes will be insufficient. There needs to be enough of them to move an entire rifle company.

Since the 6x6 570 can transport two Marines, the basic unit assigned to each vehicle will be the buddy pair. The four Marine fire team will consist of two vehicles and a squad will have seven: two vehicles for each of the three fire teams plus one for the squad leader and systems operator. The rifle platoon will have 23 vehicles: seven for each of the three squads, one for the platoon sergeant and corpsman, and one for the platoon commander and radio operator.

The weapons platoon is where the table of organization gets complicated since the subunits often consist of an odd number of Marines. However, this is actually beneficial since the vehicle with a single Marine assigned to it can be used to carry a larger amount of ammunition or other gear. Including those for the company fire support team, the weapons platoon will rate 29 vehicles. A machine gun section (six M240B medium machine guns) will be assigned twelve vehicles: two vehicles for each three Marine machine gun team, and four vehicles for each machine gun squad consisting of two machine gun teams and a machine gun squad leader. The machine gun section leader will ride with one of the squads. The mortar section (three M224A1 60mm mortars) will be assigned six vehicles: two vehicles for each three Marine mortar team, with the section leader riding on one of these vehicles. The assault section (six MK153 Shoulder Launched Multipurpose Assault Weapons) will be assigned seven vehicles: one vehicle per each two Marine assault team, and two vehicles per each assault squad

consisting of two teams each. The section leader will be assigned the seventh vehicle. Like in the rifle platoons, the platoon sergeant and corpsman will ride on a vehicle together. The fire support team will rate three vehicles: one for the weapons platoon commander and 81mm mortar observer, one for the forward air controller and radio operator, and one for the artillery observer and radio operator.

Headquarters platoon will rate seven vehicles: one for the company commander and radio operator, one for the executive officer and an additional Marine, one for the company gunnery sergeant and an additional Marine, one for the company first sergeant and additional Marine, and three for the remaining Marines in headquarters platoon. The company headquarters can organize however it wants to assign vehicles between the police sergeant, clerks, armorers, etc. Under this company-wide 570 6x6 table of organization, a rifle company would rate 105 Sportsman 570 vehicles. At a price of \$11,400 apiece,²³ it would cost \$1,207,500 to motorize an entire rifle company. This is less than the cost of three basic MATVs or roughly the cost one MATV with all of its add-ons.²⁴

The Polaris Sportsman 570 6x6 offers unique opportunities to enhance the potential of the Marine rifle company. Equipping one with these for light motorized operations will undoubtedly extend the breadth and depth of that company's operational capabilities. The simple addition of towed trailers to carry more chow, ammo, and fuel can further increase the performance of the light motorized rifle company (LMRC). Furthermore, a LMRC can be resupplied from the air, enabling it to operate forward longer. Compare the potential of a rifle company equipped as such to a rifle company on foot and it is quite evident which one can move faster, cover more ground, stay out longer, and pack a harder punch.

This proposition is not a panacea; it certainly will not work in every clime and place. Inevitably there will be situations when the LMRC concept is not ideal, such as in urban, mountainous, or jungle environments. However, there

are plenty of environments where it has great potential. The Polaris 570 is exceptionally suited for the low lying and flat terrain of the Baltics where Humvees easily get stuck in muddy marshlands and are too wide to navigate through forests without hitting trees. As such, they are essentially road-bound there for much of the year. The same can be said of the forests and swamps of parts of Camp Lejeune. Utilizing the LMRC concept, such terrain can instantly become gaps in the enemy's line that a foot mobile company is too slow to exploit. The open corridors of the Mojave Desert at the Marine Corps Air Ground Combat Center at Twentynine Palms is another location where this concept has great potential. This idea is not without challenges though.

Perhaps the most limiting factor to this employment is the method of inserting this company into the fight. It would not be impossible to insert the LMRC through air assault, but it would take many waves. Nor would it be impossible to insert it amphibiously via LCAC or LCU, but again, it would take several waves. As such, the LMRC is unlikely to be the company landing in a contested environment in either case. More likely than that, however, this company would be introduced as a follow-on force to be sent forward after a foothold has already been gained. Despite this, there are certain circumstances where this company has great potential.

A LMRC can conduct distributed operations, with the platoons all inserting in different locations to operate independently or to link up at a designated place. The LMRC could conduct screening, guarding, and covering missions in a battalion's rear or flanks. A LMRC could be a valuable asset conducting patrols in rural counterinsurgency environments, like Afghanistan. In a conventional fight, the LMRC can be used like its forebears in the blitzkrieg campaigns: to rapidly exploit gaps identified in the front. A LMRC operating in the enemy's rear can wreak untold havoc.

This is not a revolutionary idea. The author observed something similar to it in practice by the Norwegian 2d Bat-



A Polaris Sportsman during a field exercise. (Photo provided by author.)

talion in Latvia during Exercise SABER STRIKE in June 2017. This Norwegian battalion, equipped with 6x6 ATVs and BAE BvS-10s, was impressive. The “Viking” Battalion on the move was quite a sight to behold. Imagine what Marines can do with the same equipment. Furthermore, U.S. special operations forces have demonstrated the abilities of similar 4x4 ATVs in Afghanistan, endorsing the utility of vehicles of this type. Again, imagine what an entire Marine rifle company can accomplish on these.

Achieving a faster operational tempo to out-cycle our opponents is a hallmark of our method of warfare. In the future operating environment, whether in conventional or unconventional war, the Marine Corps will face the challenge of achieving mobility in a physically austere environment. Our gear will be heavy, the terrain will be rugged, and timely resupply will be a formidable challenge. The LMRC concept offers a task organization option that can be one of many tools in our kit, like the mechanized, air assault, or boat companies on the MEU; “Oshkosh JLTV First Drive Review: Behind the Wheel of America’s New Baja-Tuned, Duramax-Powered Humvee Replacement,” an instrument to be applied to the situation that calls for it. The day will come when the situation demands it.

Notes

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