

# Smaller Lighter Faster

NSW'S newest Ground Mobility Platform



**Over the river and through the woods ... or just about any other terrain or obstacle associated with ground mobility, Naval Special Warfare (NSW) operators have found the right tool for their driving jobs. Our war fighters operate in some of world's harshest conditions. Thanks to a new rugged and reliable vehicle that can withstand whatever Mother Nature has to dish out, operators will be able to increase mission effectiveness in an unforgiving battlefield environment.**

Across the deserts of Iraq and Afghanistan, forward deployed NSW operators have required an array of vehicles for different types of missions. When Operation Enduring Freedom (OEF) commenced, there was a specific vehicle needed to complete the mission that lay ahead.

As OEF began, SEALs relied on Ground Mobility Vehicles-Navy (GMV-Ns) and Mine Resistant Ambush Protected Vehicles (MRAPs) for mobility and protection in a hostile environment.

These platforms were built to be sturdier – they had to be; GMV-Ns transported troops through urban areas susceptible to improvised explosive device (IED) or gunfire attacks. When the enemy unfurled its barrage of gunfire, if a vehicle was hit, the human cargo inside would remain safe.

Although these types of vehicles were designed to protect personnel, they eventually became enemy IED targets. Since the makeshift bombs are often planted along roadsides where troops are guaranteed to pass at some point, the huge armored GMV-Ns and MRAPs don't stand a chance of evading these types of hidden bombs.

But now, a new vehicle is stepping up to replace the huge, heavy GMV-Ns and MRAPs. SEALs are acquiring a vehicle that matches their operating style – quiet, fast and agile.

The light-weight tactical all-terrain vehicle (LTATV) is a Special Operations Command (SOCOM) funded program that provides SEALs with a commercial base model of the Kawasaki "Teryx," which can be bought by any go-getter with a sense of adventure.

"We went through a lot of testing," said Senior Chief Special Warfare Operator Andrew, a West Coast tactical ground mobility senior enlisted advisor. "We knew this machine needed to be built to withstand the rigors of overseas stress. You name the situation; this vehicle can drive in it."

The LTATV is commonly referred to as the "side-by-side" and can carry two SEALs in addition to 500 pounds of gear. The extra suspension, four-point shoulder harness, roll cage and four-wheel drive make it perfect for rocky or desert-like environments.

## Speed Versus Security

The LTATV can travel in excess of 48 mph, has a curb weight of 1,428 pounds and a minimum turning radius of just less than 14 feet. These small, light-skinned vehicles don't compare to the 16 ton steel caged MRAPs when it comes to security, but in terms of mobility, the LTATV is a huge step forward.

When the program first got off the ground in 2007, only a few LTATVs were operating in theater. There are now 167 strategically deployed to forward operating areas.

They successfully navigate nearly any terrain operations throw at them: steep, sandy hills or in a deep, narrow crevices, rocky mountain trails or bumpy desert hills. One feature that aids the vehicle's rugged mobility is its front differential lock system.

Its swift responsiveness allows SEALs to go off-road and avoid the hazards of venturing through towns. By losing the armor and gaining speed, the LTATV provides operators with a more efficient way to travel and complete their mission.

"You can't solve everything with a hammer," said Special Warfare Operator 1st Class Garrett, the West Coast Training Detachment (TRADET) mobility communications lead. "Sometimes you have to be more tactical and precise. By using a smaller, lighter vehicle, you might not be as protected, but you're faster and more maneuverable so you can avoid threats. Just like you have different weapons for different missions, you have different vehicles for different missions."

Another benefit to the LTATV's compact size is the ability to be dropped from the sky by airplane or helicopter. When only the SEALs and their gear are needed they can swoop in silently from above and have their transportation there when they hit the ground.

## Not Just Another Driving Course

In order to complete future missions that will include the LTATV, operators must train for the environment and vehicles they'll be working with. One aspect of unit level training is a mobility block where operators are exposed to five different vehicle platforms. After completing the initial mobility school, some operators are selected by their commands to attend the LTATV professional development individual skills driver's course.

This five day course is located at the Ocotillo Wells State Park in Borrego Springs, Calif., and is held six to 10 times a year with a maximum of 12 students per class. The limited numbers mean that only a certain amount of operators can attend, therefore the operators chosen must be in predeployment training and are expected to teach the other



LTATV students get hands on experience driving the vehicles in various environments and situations to prepare them for operations in theater.



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members of their team the skills they acquire.

During the course, operators learn how to drive the LTATV to its limits. A huge part of the instruction is putting students in various situations on the driving course, forcing them to discover solutions. For instance, instructors will lead students down into a huge, sandy pit and then tell them to find a way out. The first instinct of most operators is to back up as far as they can and try to “gun it” up the hill. In this situation, the tires spin out after the forward momentum is lost and they find themselves rolling back down into the pit and in an even deeper hole than before. Students quickly realize that overcoming the many obstacles throughout the course will take more than just stomping on the gas pedal.

During another situational training block, instructors take students down into deep narrow valleys that are only wide enough to accommodate half of the vehicle, which until drivers learn to navigate properly, usually causes the LTATV to tip onto its side. Through trial and error, students learn to keep their vehicles upright by weaving through the narrow valley crevices.

“One time we were at the peak of this cliff and we hit a rock,” said David, a SEAL operator and LTATV course student. “We rolled back and did three summersaults to the bottom. No one was hurt and as it was happening, we were laughing. Now that I’ve been through the course, I know I would have attacked that cliff a different way.”

The students are expected to push their driving abilities to the limit, so if they ever find themselves in a difficult situation, they are able to control and maneuver the vehicle with confidence.

“I think it would serve everyone well to attend the course and learn about these vehicles,” said David. “They show you the extremes and challenge your skills and decision making. If we were on a mission, we would find the easiest and most tactical way, but this course shows what you can and can’t do with these vehicles and how to get out of tough situations.”

Unlike the standard mobility course, students get five days of driving with the LTATVs, rather than a week to learn five different vehicles. Thanks to the extensive training, the level of knowledge about this vehicle is much higher.

“Every SEAL is required to learn basic skill sets, one of those being driving,” said Senior Chief Special Warfare Operator Bobby, the West Coast TRADET mobility senior enlisted advisor. “We train a percentage and that percentage trains the rest.”

**Programmed for the Future**

Depending on NSW-specific modifications, each LTATV costs between \$27,000 and \$35,000. One advantage of employing the LTATV, is that the basic model is sold commercially. When vehicles need repair, parts are readily available and can be bought straight from the store shelf.

“We’re constantly improving the vehicle with technology,” said Bobby. “These are fairly disposable because they’re cost effective. You can go to an off-road motorcycle store and buy one. In the scope of a military program, this is very cheap. We take a commercial, recreational vehicle and outfit it with the best tires, best suspension and make it the best it can be.”

NSW is looking to increase its LTATV inventory by 35 percent and adding additional seating to the vehicles, so less LTATVs would be needed for each platoon. With the new LTATV, SEAL ground mobility is moving forward down a road of smaller, lighter, and faster capability.

“I think it’s always going to be a huge asset to our troops overseas,” said Andrew. “The machine may change and the mission may change, but the requirement will never change. We will continue to move as the technology moves.”

MC3 Megan Anuci



LTATV students learn a variety of skills required to operate and maintain the vehicle from changing a tire to using a pulley system to pull one LTATV out of a ditch with another LTATV.



**A Closer Look**



**Digital Meter**

Multi-functional with speedometer, fuel gauge and oil pressure indicator



**GPS**

These systems help operators navigate the harsh desert landscape



**Shocks**

Gas charged for better handling over uneven terrain