

Soldier Armed

Vehicle-Mounted Mine-Detection System/Husky

By Scott R. Gourley

When it comes to saving warfighters' lives, few platforms have a more obvious direct contribution than the vehicle-mounted mine-detection (VMMD) system/Husky. Service representatives attest that the Husky and other assured mobility systems save warfighters' lives and that soldiers say, "I trust this vehicle with my life."

Responsibility for the VMMD system/Husky falls under the Product Manager Assured Mobility Systems (PM AMS). In turn, that office reports to the Program Manager Mine Resistant Ambush Protection (PM MRAP)

ing radar, which can be mounted to the front of the vehicle.

"Each of the Husky vehicles contains a mine-detection array underneath—basically a metal detector," Kubik explained. "Instead of having troops going out with handheld mine detectors to try to find these mines, each Husky has a single operator in a blast-protected enclosure. That operator can detect mines and high-metallic devices from the safety of that enclosure rather than having someone outside in a much more dangerous position."

V-shaped hull technology where the blast deflects away from the vehicle—have been around for decades. A runoff was done and a company, Rolling Stock Dorbyl [RSD], in South Africa was selected."

The Army reportedly bought 10 of RSD's Husky systems in 1998. RSD is predominantly a locomotive/rail-car manufacturer with a side business manufacturing what it dubbed the Chubby system—known as Husky today.

"The Bosnian conflict ended, and the mine threat [decreased], so nothing much was done with these types of ve-



U.S. Army

The latest version of the Husky Mk3 is followed by the older "Meerkat" vehicle operated by the U.S. Marine Corps in Afghanistan.

under the Program Executive Office for Combat Support and Combat Service Support.

According to Jeff Kubik, assistant product manager, Sustainment Systems (Buffalo, Husky and joint explosive ordnance disposal rapid response vehicle), who reports to the PM AMS, the complete vehicle-mounted mine-detection system consists of two Husky wheeled vehicles plus a "Red Pack" element that provides replacement wheel modules for the vehicles.

Additional tactical elements include the NIITEK VISOR ground-penetrat-

Kubik noted that the program started under a different program executive office as a foreign comparative test in 1994. "When the Bosnia conflict was occurring, there were a lot of mines in that area," he said. "The Army realized that soldiers needed some type of vehicle protection to use in detecting those mines, so they did a foreign comparative test. They knew that these types of vehicles existed, in South Africa especially, where there is a long history of mines in the Angolan Civil War and those types of conflicts."

Kubik added, "These vehicles—with

hicles until the war in Iraq started," Kubik said. "In Iraq, we had a problem with IEDs [improvised explosive devices], which are frequently metallic-encased explosives. The Army ... had a lot of success with just those 10 Husky systems. That success generated additional need in theater. Operational need statements [ONS] were written, and more and more vehicles were purchased after that."

The initial ONS, written in 2004, called for 30 systems to be manufactured and delivered to theater. At that time, a Dallas-based U.S. company



U.S. Army

A Husky vehicle proceeds on a mission to detect improvised explosive devices placed under a bridge outside of Baghdad.

called Critical Solutions International (CSI) had partnered with RSD and become its North American representative.

The U.S. Army has contracted through CSI to procure the Husky vehicles, which are still manufactured in South Africa.

Additional major industry participants include Mercedes (engine), Axle-Tech (axles), Allison (transmissions) and other U.S. companies.

"We have had increasing needs in theater," Kubik said. "We have filled the requirement in Iraq—which has been drawing down somewhat—and ... over the past year or so we have been fielding exclusively to Afghanistan, where they have had increasing requirements."

To date, the Army's PM AMS has purchased 644 Husky vehicles for the U.S. Army, the U.S. Marine Corps and the Canadian armed services.

"In June, we filled the requirement and now have everything we need currently in theater," Kubik said. "But we are still producing vehicles. The reason for that is, as conflict continues in Operations Iraqi Freedom and Enduring Freedom, Army engineers realize the need to have what are called route-clearance companies underneath the engineer battalions.

"They are standing up these route-clearance companies, but they have all been deployed. There is still a require-

ment that hasn't been met for route-clearance companies in the continental United States."

Fielding to those continental United States route-clearance companies was expected to begin by the fourth quarter of fiscal year (FY) 2010 or the first quarter of FY 2011.

Kubik observed that some of the Mk3 latest-version Husky vehicles will be brought back to the United States to undergo a recapitalization program in FY 2012, with subsequent fielding to the route-clearance companies as a "like-new" vehicle.

In addition to the planned recap effort, another recent prototype experiment has examined the possibilities offered by a new Husky 2G design with a two-man cab. Completed in June 2010 at the Aviation, Missile Research, Development and Engineering Center (AMRDEC) Prototype Integration Facility (PIF), the notional vehicle-mounted mine-detection/Husky system improvements program equipped two of the first-production models of the two-seat Husky with the NIITEK VISOR ground-penetrating radar, a common remotely operated weapon station (CROWS) II, integrated single-channel ground and airborne radio system, intervehicle communication system and driver's vision enhancement (DVE) with back-up camera.

Emphasizing that the program office works from formally stated require-

ments, Kubik said that the Joint IED Defeat Organization instead worked the prototype experiment with the AMRDEC PIF to purchase and integrate two of the vehicles. With integration now complete and testing already under way, the vehicles are slated for operational assessment in theater in the near future.

Reiterating that the standard Husky is a one-person operation, he explained, "That person has to drive the vehicle, listen for detection of the mines and keep an eye out for threats on anything else. He has a lot of tasks to do. So the idea was that if we can have the same ballistic protection on a bigger cab, we can have a second person in there. That can help alleviate a lot of the overload on that single operator. The problem is that they made it a bigger cab, so they added a CROWS system; they added a DVE; they added an arm; they added a number of things. Now you have two people in there, and they both may be overburdened. A lot is still to be seen, however, because it hasn't been in theater yet. We will see how the troops like it after an operational assessment. We are certainly not willing to discount it yet, but those are some of the issues that we see."

"This system saves lives," Kubik concluded. "It really does. Two of us from the office were in Iraq a few weeks ago. There were two platoons going out one night for a mission, and we had the opportunity to watch them prepare. They had a briefing prior to the mission on what the plan was for the evening, and we were able to talk to the guys—not just with the Husky, but also with the other equipment [managed by the same office]—to see what they liked about the equipment and what they might want to change. It's weird: These are great guys who are going out and looking for stuff that's going to blow up—and blow up underneath them when they are in a vehicle—yet they can't wait to go out and find it. I talked to one Husky operator who said, 'I absolutely trust my life with being inside this vehicle because I know it's going to protect me.'" ★