

# Will the New Brigade Reconnaissance Troop Be Adequately Protected?

by First Lieutenant Wayne T. Westgaard

General William Hartzog, former commander of TRADOC, held a press conference on June 9, 1998 to outline the New Division Design for the next century. General Hartzog explained the reason for the changes in the division organization: "At the end of the Cold War, the U.S. Army was largely a very heavy army, not as strategically relevant to all of the tasks of the early 1990s that were emerging, and certainly not anticipating to be strategically relevant to the future in the early 21st century."<sup>1</sup>

From the cavalry community perspective, the most notable change is the creation of the brigade reconnaissance troop assigned to each maneuver brigade. "There's a brigade reconnaissance troop that's never existed before... mounted in armored HMMWVs with some very good devices for ground intelligence collection," Hartzog said.<sup>2</sup>

I suggest that the XM1114 HMMWV does not have enough armor protection, mobility, or firepower to sustain a brigade reconnaissance role.

The new brigade reconnaissance troop will take on the traditional cavalry roles on the battlefield by performing reconnaissance and providing security in close operations for the brigade. The new organization will, according to General Hartzog, consist of 49 soldiers using the XM1114 Up-armored HMMWV. Currently, a divisional cavalry squadron uses the M3A2 Cavalry Fighting Vehicle (CFV) as its scouting platform while a heavy task force uses the HMMWV. The mission of the new reconnaissance troop will more closely resemble that of a divisional cavalry squadron than a task force scout platoon. I believe the HMMWV's lack of survivability, lack of mobility, and lack of firepower render it the wrong choice for this role.

For almost 20 years, the HMMWV has served the U.S. Army as an all-terrain, all-purpose vehicle. During these years, the design has been adopted to serve as a field ambulance, an air defense artillery vehicle, and an armored cavalry anti-armor vehicle equipped with TOW missiles. The HMMWV in support of the

Bosnia mission has gone through some design changes, including the addition of some 6,000 pounds of armor. This affords more crew protection against mines in the UXO-rich environment of Bosnia. This adaptation, coupled with mine awareness training of all crews, has resulted in few injuries due to mine strikes in Bosnia. The XM1114 has been a great success story of the Bosnian mission, although the added weight has caused rapid wear of some components.

In support of the brigade reconnaissance mission, the new reconnaissance troop will push out ahead of a brigade-sized element, confirming or denying the enemy's activity. The troop will need to conduct such missions as route, zone, area reconnaissance, and screens for a brigade-size element.<sup>3</sup> During these missions, the troop will also have to fight the counterreconnaissance battle for the brigade commander, and will need to destroy the oncoming threat reconnaissance element while conducting a battle hand-over with the following battalion. It is vital to the maneuver brigade that the reconnaissance troop survives long enough to pinpoint the enemy positions, axis of advance, and disposition. Is the XM1114 the best vehicle for this mission? I do not think the troop will last long enough in battle to complete its mission. A troop using the CFV would survive longer in the same situation.

The survivability of a combat platform relies on the following: mine and ballistic protection, size and silhouette, and stealth. According to a recent *ARMOR*

article by an engineer in this field, "In general, wheeled platforms are more vulnerable to small arms fire, grenades, mines, and artillery fragments; due to the inherent weakness of wheeled suspension designs, components, and tires."<sup>4</sup> The HMMWV cannot take prolonged attacks by small arms or mines due to the light armor protection. The armor package added to the XM1114 consists of ballistic windows and rolled homogeneous armor plates added to doors, sides, and undercarriage. The armor and the ballistic windows provide protection for up to a 7.62mm round, but if bullets strike the windows, visibility is reduced significantly. And the armor doesn't protect against RPGs, making the vehicle vulnerable to almost every threat reconnaissance element. The light armor provides protection against AP mines and grenades, but not for the entire crew: the gunner is always exposed to the dangers of mines, grenades, and small arms because the vehicle's weapon is mounted externally.

The fundamentals of reconnaissance call for gaining and maintaining contact with the enemy. Because the XM1114 is so vulnerable to dismounted enemy OPs I believe this will lead to a shallow reconnaissance of the enemy's main defensive belt during offensive operations. In order to conduct an in-depth reconnaissance of a main defensive belt without suffering high attrition rates, a CFV would be preferable to the XM1114.

The Army wrestles with the question of whether to use a tracked vehicle or a



wheeled vehicle each time a new platform for a ground weapons system is needed. The Army has tested and studied the advantages and disadvantages of wheeled and tracked combat platforms for the past 30 years.<sup>5</sup>

In 1988, TRADOC conducted such a study. The findings are shown in the table at right, which compares the average 100km-mission travel time for both wheeled and tracked platforms as off-road usage increases. The data clearly shows that, as cross-country travel increases, wheeled vehicles require more travel time than do tracked vehicles for the same distances.<sup>6</sup> Tracked vehicles offer the best solution for a versatile platform that is required to operate over diverse terrain. Some opponents to this may say that wheeled vehicles have worked well for the many miles traveled during the Bosnia mission and wheeled success must translate into other operations. However, when making these assumptions remember that future combat will not always be on roads and unrestricted terrain.

On the future battlefield, the brigade reconnaissance troop will deploy anywhere in the world and on all types of terrain. Using Bosnia and the NTC as the *only* test beds for maneuver studies adds incorrect assumptions to equipment capabilities. I mentioned the Bosnia mission as a success story for the HMMWV. As one recent account by another *ARMOR* author described it, "While the up-armored HMMWV is great to patrol the countryside and perform administrative tasks... they are not, and should never be considered a suitable substitute for the Abrams and CFVs of our cavalry organizations."<sup>7</sup>

Adding six thousand pounds of armor to the weight of the XM1114 without modifying the chassis to accommodate the added weight was not a good idea. The great success of this vehicle in Bosnia is due in part because patrols are told to "stay on approved routes." From June to September 1998, my platoon encountered the following problems with our vehicles due to the added extra weight:

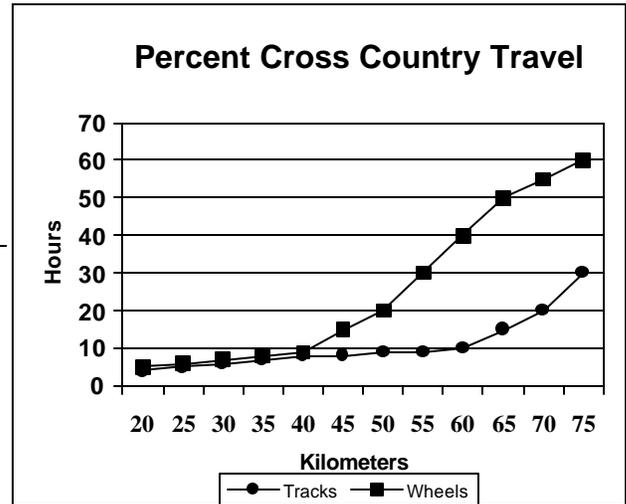
- Brake system components routinely needed replacement every six weeks due to brake wear.
- Power steering pump seals blew out under increased stress.

- Tires wore down notably faster.
- Lug nuts and bolts often sheared off.
- Engines overheated from turbocharger placement on engine. The turbocharger blocks the natural convection heat loss of the engine, holding all the heat near the fuel pump, which causes vapor lock.

The new XM1114 is not the same HMMWV you enjoy back in the garrison environment, a vehicle that requires little maintenance and is able to leap small mountains in a single bound. More field studies of the XM1114 and capability comparisons using track vehicles must be conducted before a final decision is made on whether to outfit the new brigade reconnaissance troop with XM1114s or CFVs. "The HMMWV has no more than bare minimum capabilities in close combat. Mobility is inferior to tracked vehicles,"<sup>8</sup> "as is armor protection and load carrying capacity."<sup>9</sup>

Firepower! There is no accurate heavy weapons system for the XM1114. Most often, HMMWV scouts use the M2 .50 cal MG and the MK19 grenade launcher. Remember the mission of the brigade reconnaissance troop. Gain and maintain contact with the enemy while fighting the counterreconnaissance battle for the brigade commander. Read an example from the recent past of the HMMWVs outfitted with MK19 and heavy machine guns tested under enemy contact in Somalia:

"In the breakthrough to Task Force Ranger during 3-4 October 1993, 40mm MK19 grenade machine guns mounted on HMMWVs were used by the 10th Mountain Division to provide direct fire support during the movement through Mogadishu's streets.<sup>10</sup> The minimal capabilities of the 40mm HEDP rounds seemed unlikely to overcome a well fortified bunker, let alone the steel hide of any but the lightest of armored vehicles... the small amount of explosives in the 40mm projectile seriously limited its usefulness against well trained and well prepared foes."<sup>11</sup>



During Operation Restore Hope, armored vehicles would have made a great impact on force protection by providing more security for dismounted infantry. This operation is an example of how a low intensity environment goes high intensity rapidly. The ability to show force is a great deterrent to a warring faction during OOTW. "Crowds keep their distance from armored vehicles while crews can safely operate from an open protected position. Their physical height over the crowds makes them an asset in OOTW."<sup>12</sup>

The new brigade reconnaissance troop will encounter threat armored vehicles on the future battlefield. MK19s and machine guns won't defeat enemy armor, only suppress it. The weapons systems on the XM1114 will not pack enough punch for the troop to survive and report, thereby rendering the unit useless. The troop will need the capability to defeat light armored reconnaissance vehicles.

The Army has already built the vehicle needed for this reconnaissance mission, the CFV. In so many other ways, the CFV allows the scouts to accomplish the fundamentals of reconnaissance. Look at the comparison at right, from *FM 17-98, The Scout Platoon*, and note in how many categories the CFV excels compared to the HMMWV: "To some degree the scout's capability is dependent on his equipment. The two types of scout platforms have distinctly different characteristics. Both vehicles, when employed with the appropriate tactics, techniques, and procedures, are effective reconnaissance platforms. The scout must understand his equipment and its capabilities, then minimize its limitations."<sup>13</sup> The HMMWV is a great platform for the battalion scout's mission but not for a division cavalry or brigade reconnaissance troop. The CFV will provide a more survivable platform to conduct reconnais-

sance in support of a brigade-size element.

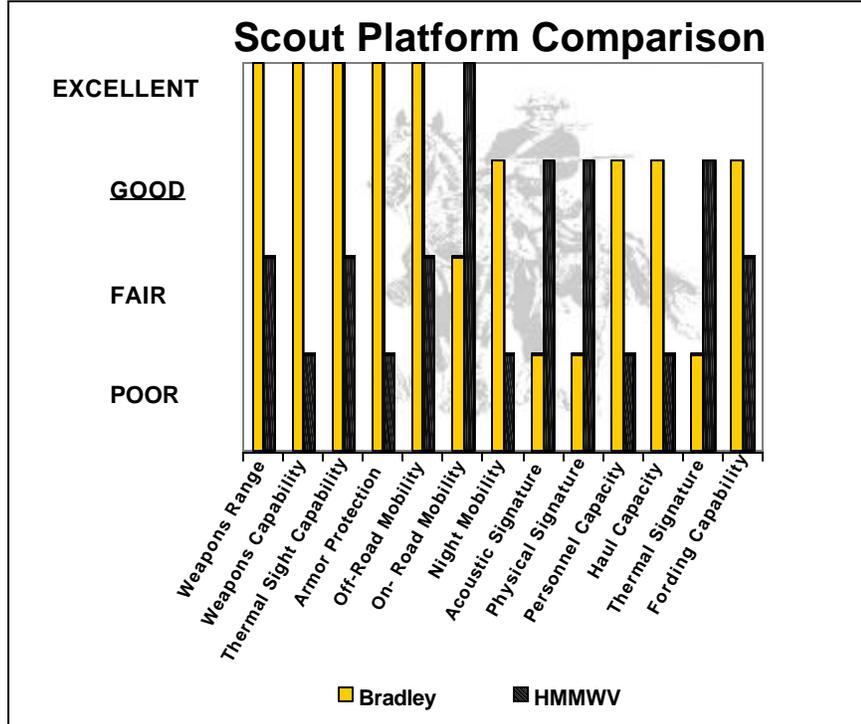
**Notes**

- <sup>1</sup>General William Hartzog, "News Briefing On The Army's Redesign Of Divisions," U.S. Army Training And Doctrine Command. Washington, D.C., June 9, 1998.
- <sup>2</sup>Jim Caldwell "New Design Framework For

- Army XXI Heavy Division" TRADOC News Service, Washington, D.C. June 9, 1998.
- <sup>3</sup>*FM 17-95, Cavalry Operations*, Headquarters Department of the Army, December 1996, Washington, D.C., p. 1-15.
- <sup>4</sup>Paul Hornback, "The Wheel Versus Track Dilemma," *ARMOR*, March-April 1998.
- <sup>5</sup>Hornback.
- <sup>6</sup>"Mobility Analysis for the TRADOC Wheeled Versus Track Vehicle Study, Final Report,"

- Robert F. Unger, Geotechnical Laboratory, Department of the Army, Waterways Experiment Station, Corps of Engineers, Vicksburg, Miss., September 1988, p. 1.
- <sup>7</sup>LTC Michael Prevou, "HMMWVs Lack the Firepower and Protection for Bosnia Role," *ARMOR*, January-February 1998, p. 36.
- <sup>8</sup>CPT Kevin J. Hammond and CPT Frank Sherman, "Sheridans in Panama," *ARMOR*, March-April 1990, p. 1.
- <sup>9</sup>Stanley C. Crist, "Too Late the XM8: Alternatives to the Armored Gun System," *ARMOR*, January-February 1997, p. 17.

- <sup>10</sup>CPT Charles P. Perry, "Mogadishu, October 1993: Personal Account of a Rifle Company XO," *INFANTRY*, September-October 1994, pp. 28-29.
- <sup>11</sup>Crist, p. 17.
- <sup>12</sup>Prevou, p. 36.
- <sup>13</sup>*FM 17-98, Scout Platoon*, Headquarters Department of the Army, September 1994, Washington, D.C.



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