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**STATEMENT**

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**BEFORE THE SUBCOMMITTEES ON  
SEAPOWER AND EXPEDITIONARY FORCES  
AND  
AIR AND LAND FORCES  
OF THE HOUSE ARMED SERVICES COMMITTEE**

**November 8, 2007**

Mr. Chairmen, distinguished members of the Subcommittees, thank you for the opportunity to appear before you again to discuss the Mine Resistant Ambush Protected (MRAP) vehicle program. Since I appeared before these Committees back in July, there have been countless man-hours spent across the Department to not only accelerate the delivery of these vehicles and deploy them to our troops as quickly as possible but also to ensure the quality and effectiveness of these vehicles is kept at a high level in theater. We appreciate the extraordinary steps Congress has taken to support the Department's efforts to accelerate the MRAP program. As a result of the combined efforts of the government and industry, there are over 563 MRAP vehicles fielded in theater, and the number is now increasing everyday.

As you requested, I have with me today Mr. Bill Greenwalt, the Deputy Under Secretary of Defense for Industrial Policy, and Captain "Red" Hoover representing the Space and Naval Warfare Systems Center. Their teams, and additional government offices, have been pivotal in our efforts to accelerate this program over the past few months. In fact, since the Secretary of Defense made MRAP his top acquisition priority on May 30<sup>th</sup>, the MRAP Joint Program Office team and our industry partners have aggressively pursued one objective: "get as many of these vehicles to our Soldiers and Marines in the field as is possible in the next several months."

## **Overview**

Since July, the scope of this program has increased dramatically. We have placed delivery orders for 2,400 more vehicles, bringing the Department to a total of 8,815 vehicles. We have obligated nearly \$200 million dollars to increase the capacity and availability for specialty steel products. We have grown the capacity of the Space and Naval Warfare Systems Center to integrate Government Furnished Equipment into MRAP's before transporting them to theater. Our industry partners have continued to lean forward, buying materials in advance of contract delivery orders and at risk, in order to accelerate MRAP vehicle deliveries. We continue to learn, but I can assure you that we are aligned in our efforts to deliver MRAP's to Iraq that provide greater safety and survivability for United States forces.

The continued commitment of your Committees and the Congress has allowed us to achieve important benchmarks in fielding MRAP vehicles. We were able to exercise the capacity of industry only because the Congress provided \$5.4 billion in Fiscal Year 2007 and approved \$5.2 billion in the Fiscal Year 2008 Continuing Resolution. As you know, the President has requested a total of \$16.8 billion in the Fiscal Year 08 through Supplemental Budget Requests and Budget Amendments. This Fiscal Year 2008 funding provision allowed us to place an additional 2,400 vehicles on contract within days in order to maintain MRAP procurement momentum, giving industry the capital they needed to keep the supply of components and raw materials available for MRAP production in the

coming months. In December 2006, we had an industrial capacity to build less than ten MRAP vehicles per month. When I appeared before you in July, we expected delivery of 154 vehicles for that month. I am pleased to report that this team produced 161 vehicles in July and over 500 vehicles in August and September combined. Additionally, between October 1<sup>st</sup> and November 4<sup>th</sup> we have taken delivery of more than 500 vehicles. We are making steady progress toward our goal of more than 1,000 per month by the end of the calendar year. Our acquisition strategy, laid out about this time last year with confidence in industry's ability and willingness to commit themselves to this aggressive program, has served us well by enabling the program to grow commensurate with industry's ability to produce.

The final requirements and inventory objective for MRAP vehicles are continuing to evolve and grow in response to operational needs. When I appeared before these committees in July, the Joint Requirements Oversight Council (JROC) validated requirement dated May 10<sup>th</sup> was for 7,774 vehicles. There was also an interim JROC decision on July 11<sup>th</sup> to produce as many as industry could provide by the end of calendar year 2007. This requirement resulted in the planning figure of 8,000 MRAP's for the July Fiscal Year 08 GWOT Budget Amendment request for \$5.3 billion. On September 5<sup>th</sup>, the JROC validated a total requirement of 15,274 MRAP's for fielding, to support the Army's interim requirement for 10,000 vehicles. The Department requested an additional \$11.0B in the October Fiscal Year 2008 GWOT Budget Amendment. These requirements

will continue to be reviewed as MRAP's enter service and troops evaluate their effectiveness.

### **Industrial Capacity**

One of the first efforts of the Task Force was to determine if there were potential industrial bottlenecks that could limit the MRAP vehicle production rate. In April 2007, the Defense Contract Management Agency (DCMA) Industrial Analysis Center issued the first MRAP Vehicle Industrial Capabilities Assessment. The goal was to make an initial assessment of the industrial base maximum capacity for MRAP vehicle production. The Secretary of Defense approved a DX rating for the MRAP program on June 1, 2007 to assure priority access to available material. DX ratings provide the most important DoD programs priority access to scarce production resources; however, they do not resolve fundamental production capacity shortfalls. Industry leaned forward to increase their capacity in several areas by teaming, renting and buying new space and capital equipment and engaging their subcontractors to ensure the subcomponents were ordered and received in a manner that supported the steep ramp in production planned for the coming months.

In July, Mr. Greenwalt tasked DCMA to update its study and conduct an Industrial Capability Assessment on MRAP prime contractors and their subcontractors to determine production capacity and delivery capabilities necessary to meet a goal of producing 1,300 MRAP's per month starting in December 2007. The ICA was to also provide information, conclusions and

recommendations supporting the MRAP Acquisition Strategy. The assessment, completed in September, concluded that industry's production capability in December 2007 should be between 1,000 and 1,300 per month depending on many factors, a capacity that is in line with our planned production of 1,196 vehicles.

I am pleased to report that we have made substantial progress on two primary bottlenecks – tires and steel – highlighted in both the April and September industrial assessments. When I was here before you in July, production capacity of tires for MRAP class vehicles was less than 1,000 tires per month. Through the efforts of several DoD organizations and the tire manufacturers, MRAP vehicle tire capacity will increase during January 2008 to about 17,000 tires per month with the addition of Goodyear as a second source and the addition of more tire molds at both Michelin and Goodyear. This production rate should provide sufficient capacity to meet projected MRAP ramp rates, and to sustain the vehicles in the field. The entire team, including the Office of the Secretary of Defense, the Defense Logistics Agency, and the MRAP Joint Program Office, worked together to ensure that tire production capacity and rate issues now appear manageable.

Production capacity for armor plate and high strength steel plate continue to be a concern. The total DoD demand for steel of approximately 21,000 tons per month is only a fraction of the United States production of 8,000,000 tons per month. However, the Defense Department has unique, niche requirements for armor steel plate and thin gauge, quenched and tempered steel. These specialty steels require unique processes and special equipment which are not available at

plants producing commercial grade steel for the global market. This demand for specialty steel products at high volume production rates has created spot capacity shortages that affect other defense programs. The Department's Priority Allocation of Industrial Resources (PAIR) Task Force is managing these industrial issues through special priority assistance and continued industry engagement. With their assistance, we have been able to build capacity for specialty steel and stabilize production rates, mitigating much of the potential material shortfall in steel plate. When the MRAP program began, compliant domestic sources were able to produce about 8,400 tons of this specialty steel per month. We've made slight specification changes to increase throughput and encouraged steel producers to make capital investments.

In the cases where domestic source restrictions have limited our access to the steel we need, we have used the waiver processes available to us to tap non-compliant domestic sources as well as reliable non-domestic sources.

10 U.S.C. section 2533b prohibits DoD from procuring end items, or components thereof, containing specialty metals not melted or produced in the United States. Section 2533b contains several exceptions, one of which states that the prohibition does "not apply to procurements outside the United States in support of combat operations or in support of contingency operations." On May 22, 2007, Dr. Delores Etter, the Navy Acquisition Executive formally determined that this exception applied to MRAP vehicles supporting ongoing contingency operations in Southwest Asia and the Middle East; and that the exception also

applied to MRAP vehicles not placed in theater but used to permit vehicle testing and/or vehicle operator or troop training. (This exception was not invoked for other ground vehicle programs such as Stryker and Bradley.) Section 8024 of the FY 2007 DoD Appropriations Act (P.L. 109-289) continued a domestic source restriction contained in previous yearly Appropriations Acts that prohibited procurement of carbon, alloy or armor steel plate for use in any Government-owned facility or property under DoD control that is not melted and rolled in the United States or Canada. The Secretary of the military department may waive this restriction on a case-by-case basis by certifying in writing to the House and Senate Appropriations Committees that adequate domestic supplies are not available to meet DoD requirements on a timely basis and that such an acquisition must be made to acquire capability for national security purposes. Various armor kits for myriad DoD vehicle programs are being acquired by and/or fabricated in Government facilities (for example, Rock Island Arsenal). On Oct 1, 2007, Secretary of the Army Pete Geren made such a determination for armor steel plates for Explosively Formed Penetrator armor kits for five variants of MRAP vehicles, four variants of Route Clearance Vehicles, Stryker, Bradley, the Armored Security Vehicle, and the High Mobility Multi-purpose Wheeled Vehicle (HMMWV). On Oct 23, 2007, Secretary Geren made a similar determination for Stryker Improvised Explosive Device defeat armor.

We currently have access to about 20,900 tons per month of armor steel plate and thin gauge, quenched and tempered steel. This supply essentially meets

our demand. Pending finalization of steel requirements for MRAP explosive formed penetrator armor kits, we project that there will be sufficient steel production capacity to ensure all DoD programs are able to continue to provide critical equipment to our Soldiers, Sailors, Airmen and Marines.

As I mentioned previously, there are many partners in the MRAP Enterprise. I would like to take this opportunity to thank all of our industry partners, down to the subcomponent level, for the outstanding support and patriotism they have shown to make this program a success. In addition to those that have been mentioned, companies like Cummins, Caterpillar, Allison Transmission, ArvinMeritor, Cushman, Axle Tech, Eagan & McAllister and Associates, C.E. Neihoff, Hutchinson Industries, and many others, make the critical components that are the building blocks for these impressive vehicles. Without their commitment, hard work, and willingness to take risk, this program would not be succeeding.

### **Government Furnished Equipment**

Integral to the effectiveness of the MRAP vehicles is the suite of Government Furnished Equipment (GFE) that is installed on each vehicle after it is accepted from the manufacturers. GFE includes radio frequency jammers, intra-vehicle communication systems, Blue Force Tracker, and other items. The integration of these critical items takes place at the Space and Naval Warfare Systems Center in Charleston, South Carolina. As I mentioned before, I am joined this afternoon by Captain “Red” Hoover, Commanding Officer of that activity and

would like to take this opportunity to commend all the members of his team for the determination, professionalism, and flexibility they exhibit each day as they approach this daunting task. Since I testified before these Committees in July, we have made good progress in our efforts to streamline the process and standardize the equipment installed into MRAP's. Captain Hoover and his team have used Lean Six-Sigma processes to capture the elements of the integration process and streamline them through prototyping, training and visual cueing of steps. Leaders from the Army and Marine Corps have agreed to standardize GFE where practical and also improved radio and jammer installation kit designs. As you can imagine, with seven different manufacturers and multi-Service configurations, the task of integration continues to be complex. Yet, the GFE integration line at SPAWAR continues to increase capacity toward their ultimate goal of integrating 50 vehicles a day.

Reflected in our most recent production orders is the experience we gained from prototyping and communicating with the vehicle manufacturers. In the case of one manufacturer, we were able to identify potential for saving over 10 hours of integration time (per vehicle) upon implementation of minor modifications by the vehicle manufacturer at the factory before shipping. To promote the open and timely sharing of information, we have manufacturer personnel on site at the integration line at SPAWAR. MRAP Joint Program Office personnel are making regular trips to the manufacturers facilities, and a network of professionals from

the Defense Contract Management Agency are assisting at all sites. This has truly been a collaborative effort by all members of the MRAP Enterprise.

### **EFP Protection**

The Defense Department is using an innovative and expedited test and evaluation methodology for the existing MRAP designs. With oversight from the Director, Operational Test and Evaluation, the U.S. Army Aberdeen Test Center continues to “blaze the trail” for combined developmental and operational test and evaluation of what are essentially, commercial off-the-shelf vehicles, ensuring they are survivable and usable, supporting rapid procurement and fielding, and meeting statutory requirements for live fire test and evaluation. This test strategy continues to be extraordinarily successful and has allowed us to qualify vehicles and confidently make production awards with unprecedented speed.

Of primary concern to Secretary Gates and other leaders in this effort has been the emerging threat to our troops from Explosively Formed Penetrators (EFPs). The U.S. Army has done extensive research and development to counter this threat including modeling and simulation, as well as prototype testing and re-testing of each manufacturer’s vehicles to design solutions that will quickly react to the evolving threat. The Department established the MRAP Expedient Armor Program to counter this threat, and this is a good opportunity to recognize the entire community for their dedicated support. The MRAP Joint Program Office has leveraged support from the U.S. Army Research Lab (ARL), U.S. Army Tank

Automotive Research Development and Engineering Center (TARDEC), the Army Test Center, our depots, and industry partners.

Our goal has always been to provide the best possible protection against the most lethal threat. Currently, a limiting factor is vehicle payload and these “up-armor” kits may weigh between 4,000 and 13,000 lbs. We strive to maximize survivability while limiting performance degradation of the MRAP vehicle. This task will be accomplished by determining acceptable payloads based on chassis and power-train limitations, then optimizing armor placement to maximize crew survivability through the evaluation of over 20 courses of action.

The first MRAP vehicles with installed, enhanced EFP kits are undergoing testing. Three of these vehicles dedicated to EFP protection have been received, and the respective kit packages are currently in various stages of engineering (design, fabrication and prototype efforts), depending on the MRAP vendor variant. To expedite the total process, an engineer team from Rock Island Arsenal is working hand in hand with our TARDEC design and fabrication teams. We continually search for ways to reduce cycle time such as providing our vehicle manufactures with base material and integrating as much of the kit on the vehicle at the production facility as possible. We anticipate building our first kits from this initial design at Rock Island Arsenal in the later part of November. The Blue Grass Army and USMC Albany Depots are also being explored to support our kit build efforts.

One of the components of expedient armor requires specialty steel which is processed into add-on armor material. These material designs, commonly referred to as P900 or XPA, are made at only a few foundries. We have teamed with the ARL in exploiting foundries for P900 plate. As a result, we have awarded \$52.1 million for the production of P900 and XPA plate and high hard plate. We anticipate an award in mid-November of an additional \$31 million for P900 material (estimated at 50,000 plates). The actions were funded from the \$200 million appropriated for steel procurement. Aggressive procurement actions have made it possible to purchase 9,200 tons of high hard steel and 5,250 tons of aluminum, both essential elements of P900 or XPA. All three of these components will start to be delivered to Rock Island Arsenal mid-November.

In addition to designing EFP protection for all the vehicles currently in production, the MRAP Joint Program Office issued a solicitation commonly referred to as MRAP II, which includes enhanced performance specifications for vehicles and components. We are currently in the proposal evaluation phase for MRAP II, and I look forward to sharing those results with you after we have completed the required steps.

### **Transportation and Sustainment**

The MRAP Enterprise has also made significant progress in MRAP transportation and sustainment. We are currently transporting MRAP's to theater by air. United States Transportation Command (TRANSCOM) has been extraordinarily flexible and responsive while we continue to work toward a steady,

predicable flow of vehicles from production through integration. Based on projected production and integration output increases, the first bi-monthly surface (sea) shipment loaded in Charleston on the 2<sup>nd</sup> of November and is projected to arrive in theater on or about the 26<sup>th</sup> of November. About 50 MRAP's will be shipped to exercise our ability to transport them by sea and process them from the sea port to the battlefield. We will continue to use air assets in the months to come but much larger total capacity exists by using ships in a concurrent role.

On the October 29<sup>th</sup> the MRAP Joint Program Office and the Commander, Tank and Automotive Command co-hosted an MRAP Fielding and Logistics Review. Attended by over 200 DoD officials, including some senior officials, the review spanned the entire joint logistics structure for MRAP's including in-theater management, maintenance concepts, and integrated supply chain. From the inception of this program, the logistics community, led by Mr. Jack Bell, Deputy Under Secretary of Defense (Logistics and Material Readiness), and composed of thousands of dedicated professionals, has been focused on the establishment and sustainment of a high level of material readiness of the MRAP vehicles that we have already fielded and will continue to field in the future. While the fielded MRAP population is still relatively small and consists of primarily vehicles from one manufacturer, Force Protection Industries, Inc., the readiness rate of the MRAP's delivered to operating units to date has ranged from 93 percent to 97 percent – significantly above the 90 percent material readiness target established for the MRAP vehicle fleet.

The rapid fielding of MRAP's, combined with the relatively large number of manufacturers and corresponding vehicle types and variants, means that configuration control, logistics support, and other sustainment and infrastructure issues have increased the complexity and challenges of sustaining the MRAP fleet. Key activities being addressed on an accelerated basis include the areas of technical data packages and other types of documentation and automation, training, wholesale level support, in-theater management, depot and field level maintenance, and integrated supply chain management. To manage this very complex effort, the MRAP Joint Program Office has altered the original Contractor Logistics Support (CLS)-based sustainment strategy and is implementing a hybrid industry/organic partnership equipment support strategy to ensure parts and vehicle availability through the existing in theater infrastructure and maintenance support/resource structure and capability for all varieties of MRAP's.

The following key actions have been or are being taken to ensure the continued high level material readiness and corresponding equipment availability over time of the fielded MRAP's:

- Establishment of a formal joint program office forward organization in-theater to assist in equipment fielding;
- Identification of four regional support activities and an additional five fielding sites in-theater;

- Acceleration of the development of appropriate technical data packages, manuals, and other logistics support documentation for all MRAP vehicle types and variants;
- Establishment of “MRAP University” at Red River Army Depot, Texas to provide training on the operational use and maintenance of MRAP’s;
- Agreements between MRAP manufacturers so that Field Service Representatives (FSR's) provided under the CLS contract can provide support to any MRAP variant;
- Initiated action to obtain the technical data necessary for full cataloguing of MRAP parts in DoD supply systems;
- Establishment of a formal process for logistics feedback from Field Service Representatives in-theater and translation of the resulting logistics requirements into completed contract actions with OEM’s and Depots;
- Intensified efforts to assist vendors in expediting parts deliveries from suppliers and ensuring appropriate plans are in place to support the decisions (when necessary) of choosing between production and sustainment priorities;
- Acceleration of engineering change proposals generated during electronic prototype back to the vehicle manufacturer for execution; and
- Development of a program-wide configuration management and control database that accurately tracks the configuration of each vehicle.

The actions I have outlined above are critical to the overall success of the MRAP Joint Program. While we are making good progress, we continue to stretch what is possible on all fronts. We have several challenges in quality, reliability, maintenance and supply, in the short term. Maintainability and supportability, including prioritization of parts between production and sustainment, will be key factors in providing our warfighters the maximum number of MRAP's that are available for mission execution. We are anticipating these issues and taking action. Even with these challenges, I believe that our joint sustainment approach has us on the right track.

### **Summary**

Finally, and most importantly, the MRAP Enterprise continues to address the challenges of a new program allowing us to place orders and deliver MRAP vehicles during calendar year 2007. The reprogramming action, Budget Amendments and Continuing Resolution funding provided by the Congress have been vital to this goal. Most recently, I approved the re-designation of the MRAP Joint Program to an ACAT 1D acquisition program and approved the latest production awards totaling 2,400 additional MRAP's to be produced in early calendar year 2008.

We have continued to challenge industry to produce as many vehicles as they can, as quickly as they can. We have integrated essential GFE with ever increasing speed, used an innovative joint testing regimen, adjusted to an evolving threat and executed a logistics and sustainment strategy that is designed for

success. We executed plans to mitigate raw material shortages by incentivizing the industrial base that is needed to produce these vehicles. We have improved commonality of GFE equipment, streamlined the GFE installation process, ramped up MRAP vehicle transportation options, and executed an aggressive fielded vehicle sustainment strategy.

When I appeared before you in July, I was speaking to you as the head of the newly formed MRAP Task Force. I appear before you today, joined by two other key partners in the MRAP Enterprise, not only as the head of the Task Force but more importantly as the Acting Defense Acquisition Executive and Milestone Decision Authority for this ACAT 1D program. I continue to be amazed by the tenacity and professionalism of everyone involved with the MRAP Joint Program including the Services, DoD civilians and our industry partners. I am certain now more than ever, ladies and gentlemen, that everyone involved in this effort, both inside and outside the Department, shares the Congress' and Secretary Gates' goal of getting as many MRAP's in the troops' hands as quickly as possible.

The Department's highest priority remains the combat effectiveness and force protection of our troops—ensuring that they have the best training and best equipment available to fight, win, and survive. We are absolutely committed to giving them the best force protection capabilities available: proven, tested and safe.

I would like to thank all the members of the MRAP Enterprise, starting with the Joint Program Office, vehicle manufacturers and their raw material sub-

component suppliers, the men and women of Space and Naval Warfare Systems Center, Charleston, the entire network of transportation professionals represented by TRANSCOM, the vast network of logistics experts from the Pentagon to Iraq, and the talented military and civilian staff in the Services and Office of the Secretary of Defense involved with this program. Finally, I would like to thank you and the other Members of Congress and their staffs for their continued efforts to ensure the success of this vital program. With our continued partnership, we should be able to increase and maintain a high level of production, fielding and sustainment of these life-saving vehicles and provide them to our Soldiers, Sailors, Airmen and Marines.