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THE DEPARTMENT OF DEFENSE'S RAPID ACQUISITION PROCESS: IS IT A MODEL FOR IMPROVING ACQUISITION?

HEARING

BEFORE THE

PANEL ON DEFENSE ACQUISITION REFORM

OF THE

COMMITTEE ON ARMED SERVICES
HOUSE OF REPRESENTATIVES

ONE HUNDRED ELEVENTH CONGRESS

FIRST SESSION

HEARING HELD
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PANEL ON DEFENSE ACQUISITION REFORM

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THURSDAY, OCTOBER 8, 2009

THE DEPARTMENT OF DEFENSE'S RAPID ACQUISITION PROCESS: IS IT A MODEL FOR IMPROVING ACQUISITION?

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THE DEPARTMENT OF DEFENSE'S RAPID ACQUISITION PROCESS: IS IT A MODEL FOR IMPROVING ACQUISITION?

HOUSE OF REPRESENTATIVES,
COMMITTEE ON ARMED SERVICES,
DEFENSE ACQUISITION REFORM PANEL,
Washington, DC, Thursday, October 8, 2009.

The committee met, pursuant to call, at 8:00 a.m., in room 2261, Rayburn House Office Building, Hon. Robert Andrews (chairman of the panel) presiding.

OPENING STATEMENT OF HON. ROBERT ANDREWS, A REPRESENTATIVE FROM NEW JERSEY, CHAIRMAN, PANEL ON DEFENSE ACQUISITION REFORM

Mr. ANDREWS. Good morning, ladies and gentlemen. Thank you for your attendance at this morning's hearing of this panel. We feel very honored to have before us this morning a very distinguished group of gentlemen who have done much for our country and who, we know, will contribute much to our deliberations.

The panel is continuing on its consideration of the core questions of whether the uniformed personnel of our country and taxpayers are getting full value for the money we spend on the procurement system; and there is a qualitative aspect to that and a quantitative aspect to that. We have gone through a series of hearings in which we have explored hypotheses as to the reasons why we are not getting that value.

We have a slightly different twist on that approach this morning because we are looking at a case study that, by all accounts, is a success story where the public was able to achieve and the warfighters were able to achieve very high value, whether we measure that qualitatively or quantitatively or both.

The issue before us is to look at this case study and to see whether there can be lessons learned from the case study. It would be instructive for the broader context of how we approach procurement here in the Department of Defense (DOD) for our country.

The story is an impressive one. It became painfully and shockingly obvious to all those involved in the 2004–2005 cycle that something was terribly wrong in the way we were arming and equipping our warfighters to deal with a growing Improvised Explosive Device (IED) crisis in the two theaters in which we were operating at that time.

I think it is very important the record note at this point the contribution of the former chairman of the full committee, Congressman Duncan Hunter, for whom the bill that did much of this work

was named, and many members of the Democratic side—certainly, Mr. Skelton was instrumental in many ways. Mr. Taylor, I remember, was instrumental in many ways. Any number of members of the full committee became personally and actively involved in a way that, I think, made a great difference.

But—the most important difference makers were a series of people, certainly the troops in the field, who were ultimately responsible for the use of these new vehicles, but a lot of unsung heroes, as well, deserve credit: the engineers who did design, the planners who planned the industrial process, the procurement officials and staff who made the procurement happen, and logistical people who got the products delivered. There is a success story here that, I think, "deserves to have many fathers" as the saying goes.

The facts here are compelling. We want to get beyond those facts and look at the reason.

I think the most compelling fact is that this issue began to get serious currency in the discussions around these halls in early 2005. You might date it to February 2005. What is impressive is that from those very urgent discussions in the winter of 2005 to the most recent report in July of 2009, a period of about 4 years and 4 months, we went from urgent discussions to 13,848 vehicles being fielded. That is a substantial achievement, and I think the most important achievement is one, I would hope, the witnesses might address, which I think is implicit in the testimony, but needs to be made explicit.

The impressive achievement here is not the speed at which this was accomplished or the quality of the product that came out of the process or, frankly, the relative cost-effectiveness, from what I can glean in looking at the economic statistics. The real measure of success is that there are Americans who are with their families today, who are leading lives, whether still in the uniformed service of the country or not, who would not be here were it not for this progress, for whom we would be commemorating their loss on Memorial Day were this not successful.

So I think the true measure of success here is in lives saved, injuries prevented and lives that are now thriving and going on as a result of this.

So we are going to hear this morning from four witnesses who will talk about how this story unfolded, who will talk, frankly, about the challenges that still exist. I don't want the record to show that we think there is an unvarnished, unblemished story of success here. We can always learn from everything that we do, but we will have four witnesses who will talk to us this morning about how we went from an urgent discussion in the winter of 2005 to the present robust fielded capability, and lessons that we might then draw from that to improve our overall procurement system.

I think that we have assembled four individuals who are eminently qualified to make these points, who have served in various departments and on various boards that we have created or directed to look at this issue, so we feel very fortunate to have you with us this morning.

At this time, I would like to ask my friend, Mr. Conaway, for his opening statement.

[The prepared statement of Mr. Andrews can be found in the Appendix on page 31.]

STATEMENT OF HON. K. MICHAEL CONAWAY, A REPRESENTATIVE FROM TEXAS, RANKING MEMBER, PANEL ON DEFENSE ACQUISITION REFORM

Mr. CONAWAY. Well, thank you, Mr. Chairman.

Gentlemen, thank you for being with us this morning. I appreciate that.

In the last couple of hearings, we have looked at DOD's role in tackling the challenges facing the industrial base in a global market and another major component of the acquisition process, which is the purchase of commodities. As the chairman stated, today's hearing specifically looks at rapid acquisition and whether or not some or all of the changes made in the rapid acquisition process to reduce timelines can also produce improved outcomes in the regular acquisition process.

Certainly, the lessons learned from the unique strategy used to procure the Mine Resistant Ambush Protected (MRAP) vehicles offer a good example of what is possible in terms of quickly getting a needed capability to the warfighter, and I cannot think of a better group of witnesses to discuss this issue with us, particularly General Brogan, who has had multiple opportunities to excel in front of the House Armed Services Committee, not only in regards to MRAP, but many other subjects as well.

I would add that in looking at our witnesses' statements, one theme stood out. I believe it was Dr. Zakheim's statement that said, "Any rapid response must be based on proven technology and robust manufacturing processes." In other words, rapid acquisition is not a place for accelerating new technology development. I believe this is one of the reasons why the MRAP program was so successful, and I look forward to hearing from our witnesses.

Any panel that has got half of them named "Mike" and the—if we had had Coffman in here, it would have been a better comment, but if half of the committee is named "Mike," we are going to get some work done this morning.

So, with that, Mr. Chairman, I yield back.

Mr. ANDREWS. We were hoping for some "Roberts" this morning, but it looks like we fell short in that category.

Do we have any "Jims"?

Okay, thank you, Mike.

You are all veterans of testimony here, so you know that your statements, without objection, will be entered into the record of the proceeding. I think the members have had a chance to read the statements. I have. We would ask you to give us a brief oral synopsis of your statements, about five minutes, so we can get to as much dialogue with the panel members as we can.

I am going to take a few minutes and introduce each of the four witnesses. Then when I have finished the introductions, we will start with you, General, and we will roll through the oral testimony and get to the questions.

General Michael M. Brogan is a native of Orrville, Ohio. He graduated from the University of Notre Dame with a Bachelor of

Science degree in chemical engineering, and was commissioned as a Second Lieutenant.

He has had a distinguished career. I am just going to read some of the personal decorations he has won: the Meritorious Service Medal with Gold Star, the Navy Commendation Medal with Gold Star, the Navy Achievement Medal, and the Combat Action Ribbon.

He reported to the 1st Marine Division, Camp Pendleton in June of 1999, and assumed command of the 3rd Assault Amphibian Battalion (AABn). In July of 2001, he transferred to the National Defense University at Fort McNair as a student in the Industrial College of the Armed Forces (ICAF). He graduated from ICAF in June of 2002 with a Master of Science in national resource strategy. He reported to the Marine Corps Systems Command at Quantico and was assigned as the Product Group Director, Infantry Weapons Systems.

In February of 2004, General Brogan reported to the Office of Direct Reporting Program Manager (DRPM) Advanced Amphibious Assault (AAA) for duty as the Expeditionary Fighting Vehicle Program Manager, and he became in September 2006 the Commander of the Marine Corps Systems Command.

General, thank you for your service to our country. We appreciate it very much.

Thomas Dee is a native of New York City. He is probably celebrating the Yankees' victory last night. He was appointed to the Senior Executive Service and assumed responsibilities as Director of Joint Rapid Acquisition Cell in March of this year. He is responsible for resolving immediate warfighter needs identified by the DOD's combatant commanders.

He served the United States Navy from March of 1980 until his retirement in January of 2007. He held a variety of worldwide leadership positions, spanning Operations Desert Storm, Stabilization Forces (SFOR) and Kosovo Forces (KFOR) in the Balkans and several others.

He holds a Master of Science degree in national resource strategy from the Industrial College of the Armed Forces, the National Defense University, a Master of Arts degree in international relations from the University of Southern California (USC), a Bachelor of Arts degree in history from New York University (NYU); and he lives in Great Falls, Virginia.

Mr. Dee, thank you for your service and for being with us this morning.

A true veteran of our committee, Dr. Dov Zakheim, has been here so often and has served us so well. He is now Senior Vice President of Booz Allen Hamilton. From April 2001 to 2004, he served as Under Secretary of Defense Comptroller and as Chief Financial Officer for the Department of Defense. From 1987 to 2001, he was Corporate Vice President of System Planning Corporation. From 1985 until March 1987, he was Deputy Under Secretary of Defense for Planning and Resources in the Office of the Under Secretary of Defense for Policy.

He is a graduate of Columbia University; he graduated *summa cum laude* from there; the London School of Economics, he studied there. He studied economics and politics at St. Antony's College, University of Oxford.

He is the author of a dozen books or monographs, numerous articles. He has, frankly, been a great resource to this committee, and has served our country well.

It is great to have you back with us this morning.

Finally, last but certainly not least, Mike Sullivan—another returnee. Mr. Sullivan serves as Director of Acquisition and Sourcing Management at the U.S. Government Accountability Office (GAO). He has been with the GAO for 23 years.

He has his bachelor's degree in political science from Indiana University, a master's degree in public administration from the School of Public and Environmental Affairs at Indiana University.

Mr. Sullivan, we so much appreciate the dedication and excellence of you and your colleagues at GAO. We are happy you are with us here this morning.

Mr. ANDREWS. So, General, we are going to ask you to begin. As I said, your written statement is already part of the record, and we would ask you to synopsize it. You are on.

STATEMENT OF BRIG. GEN. MICHAEL BROGAN, USMC, COMMANDER, MARINE CORPS SYSTEMS COMMAND

General BROGAN. Good morning, sir.

Chairman Andrews, Representative Conaway, distinguished members of the panel, thank you for the opportunity to appear this morning, and thank you for your continued support of our men and women in uniform. I also appreciate that you made the statement part of the record without having to ask.

I recognize that the focus of today's hearing is on the rapid acquisition of MRAP, but I would like to take just a couple of minutes and talk about overall rapid acquisition within the Marine Corps.

Not only MRAP but all of the rapid acquisition that has been accomplished in the Marine Corps has been performed by our existing organizations, the Marine Corps Systems Command and the Marine Corps Warfighting Lab, and since its establishment in February of 2007, the Program Executive Office Land Systems.

While we did grow a new program management office to perform the MRAP function, we did not create any ad hoc organizations. We were able to do this because of our Marine Corps culture of mission accomplishment and because succeeding Commandants have made it very clear that the number one priority is supporting our men and women who are engaged in combat.

We are a small, flexible, uniformed service, and we encourage innovation; and at Marine Corps Systems Command, I am fortunate to have all of the authority that is necessary to accomplish the mission.

Certainly, the Marine Corps, during this conflict, has developed and refined the process that we use to respond to urgent universal needs statements. But we encourage rapid response, and the Acquisition Demonstration Project, the predecessor to today's National Security Personnel System, allowed us to reward this type of behavior.

Operating with a sense of urgency and exploiting speed are part of our culture. It is nested within the theory of maneuver warfare that is inculcated in every marine. It is the very foundation of how we operate as marines. Urgency drives how we plan to conduct op-

erations in the operating forces, and it is codified in a rapid response planning process that is used to great extent by the Marine Expeditionary Units that forward deploy. Inherent in this is the willingness to accept risk, to make decisions and to operate without complete information.

Turning now to MRAP, the foundation for its success was our mind-set to accomplish the mission and the focus on the only metric that mattered—how many trucks got in the hands of the warfighter. To be sure, we tracked many other things—how many were produced, how many were in transit in the United States, how many were being integrated at Space and Naval Warfare Systems Command (SPAWAR), how many were being transported by United States Transportation Command—but the thing that we focused on was how many vehicles were actually fielded.

It began for us in the fall of 2006 when the Marine Corps Requirements Oversight Council (MROC) approved the requirement and when we issued the first sole-source award to Force Protection, Inc. That award was made on the 6th of November, coincident with the release of the full and open competition request for proposals. That same sense of urgency was fostered by Dr. Etter, former Assistant Secretary to the Navy for Research, Development and Acquisition, as she chaired weekly synchronization meetings that were attended by senior members of the Department—Secretary Bolton, the Deputy Director of Operational Test and Evaluation, and the Deputy Director of J–8.

It was further demonstrated by folks like Colonel John Rooney at the Aberdeen Test Center, who made it his number one priority to test these vehicles. Captain "Red" Hoover, the commanding officer at SPAWAR in Charleston; folks from the Defense Contract Management Agency (DCMA); unsung heroes like Sid Polk at the Office of Secretary of Defense Industrial Policy, who went out and looked for pinch points as we began to ramp up. Many others in the early days who are not well known contributed significantly to this effort. In the spring, Secretary Young was assigned to lead a task force to help remove barriers and accelerate the program.

What has been well chronicled is, in May of 2007, Secretary Gates made MRAP the number one priority for the Department of Defense, and he approved the "DX" rating—the highest priority within the Defense Priorities & Allocations System. Certainly, that brought the formidable resources of the entire Department to bear and accelerated the program.

The Program Manager, Paul Mann, frequently refers to MRAP as the ultimate team sport. In fact, it is. Throughout the Department and with our industrial partners, we have been able to ramp this up. Many individuals and organizations have contributed to its success.

Finally, the entire program was accomplished within the existing acquisition regulations. All of the actions normally required of an Acquisition Category 1D program have been done by MRAP. They were not all done in the normal sequence. Many of them were tailored, but they have all been accomplished. The key was to view those regulations as permissive, not prohibitive, to see opportunities and not challenges, to look for possibilities and not obstacles;

and always the focus was on the 19-year old lance corporal that we are charged to support.

Thank you for this opportunity, and I look forward to your questions.

Mr. ANDREWS. General, thank you very much.

[The prepared statement of General Brogan can be found in the Appendix on page 32.]

Mr. ANDREWS. Mr. Dee, welcome to the panel.

STATEMENT OF TOM DEE, DIRECTOR, JOINT RAPID ACQUISITION CELL, OFFICE OF THE UNDER SECRETARY OF DEFENSE FOR ACQUISITION, TECHNOLOGY AND LOGISTICS

Mr. DEE. Thank you, Chairman, Representative Conaway and members of the panel. Thank you for the opportunity to speak before you today. And I also thank you for entering my comments for the record so I can speak a little more extemporaneously and a little quicker probably, than reading through this whole thing.

Mr. ANDREWS. Please take your time.

Mr. DEE. So let me make a couple of key points on rapid acquisition within the Department.

As you noted, the Department early on in Operation Iraqi Freedom, recognized the need to be able to respond to unanticipated urgent needs identified out in the battlefield inside of a current execution year and with a little bit more priority than—or with a little more urgency than would normally be provided through the normal Planning, Programming, Budgeting and Execution System (PPBES) process.

To that end, the JRAC, the Joint Rapid Acquisition Cell, was established by Deputy Secretary Wolfowitz back in 2004. Our charge is to track those Joint Urgent Operational Needs (JUONs) that are identified by the combatant commanders that fall outside of the services' normal responsibility.

JRAC does not oversee all of the rapid acquisition efforts within the Department. Under title 10, each of the services has established processes to facilitate a timely response to their service-identified need, and there have been lots of those. The Army alone has had over 7,000 operational needs statements and urgent operational needs statements that they have responded to.

General Brogan very eloquently talked about the successes with the MRAP Task Force and the Joint MRAP Program Office. There have been other task forces established by the departments to include task forces or other organizations to include the Joint IED Defeat Organization, JIEDDO; the Intelligence, Surveillance, and Reconnaissance (ISR) Task Force; the Biometric Task Force. My organization itself was established to respond to these urgent requirements. All of those various bodies have responded to needs ranging from Explosive Ordnance Disposal (EOD) robots to ISR equipment, MRAPs, of course, and lots and lots of other sorts of capabilities.

I need to point out, though, and to echo General Brogan, that the topic for today is rapid acquisition. But you cannot look at the acquisition process itself in isolation from the rest of the processes that lead to a capability.

In order to produce something, to get something out into the field, you begin by understanding and identifying what your requirements are—being able to assess what those needs are, rapidly assess what those needs are, and identify potential solutions. You need to provide adequately and timely resources inside of a current execution year in order to be able to respond to those proposed solutions. And then you need to initiate the acquisition process in order to actually produce and procure the selected solution and, of course, provide the life cycle support for that.

So, as we look at what needs to be done in order to more rapidly provide capabilities into the field, you need to consider not just the acquisition process itself, but all of those elements which make up, essentially, the Department's planning program and budgeting and execution system.

Dr. Zakheim will talk more eloquently than I will about his task force, the Defense Science Board (DSB) Task Force, on the fulfillment of urgent operational needs. It recognized the need for rapid and agile acquisition in a time of war, and it recommended two separate acquisition structures, one for deliberate and one for rapid acquisition. We are reviewing those recommendations still within the Department, but we recognize that there is a risk in accepting these two distinct structures.

We need to accept that all acquisitions, whether in wartime or peacetime, need to become more agile and responsive in order to keep pace with accelerating development cycles—which are enabled through accelerated development cycles, especially in terms of information, technologies, communications technologies, et cetera. To echo Representative Conaway's point, we need to have mature technology in the bank that can be rapidly fielded.

To that end and under the leadership of the new Under Secretary for Acquisition, Technology and Logistics and his Director of Defense Research and Engineering (DDR&E), Mr. Zach Lemnios, the Department has restructured the Directorate of the Defense Research and Engineering to emphasize rapid development and the fielding of new technologies.

The trick is being able to anticipate new threats and new requirements before they get to the point that they need to be urgent, and we are starting from scratch within an execution year.

We believe that we have begun the process and have begun building the foundation for future science and technology efforts within this new organization with the rapid fielding office within DDR&E, and we believe that we are on the path to developing that technology that can be rapidly transitioned.

I have to add one more thing, and that is the support that we have received from Congress. The MRAP Task Force and JIEDDO are two great examples of support that we have gotten primarily from the resource perspective—as I mentioned earlier, identify requirements, be able to do an assessment, provide ready resources in order to be able to provide something.

It is difficult to find resources within a current execution year. We have submitted within our budget submission for fiscal year 2010 a request for rapid acquisition funds. I understand, as of last night, that request was not approved, and we will continue to

struggle with finding resources in the current execution year for rapid acquisitions.

So we appreciate the support that Congress has provided, and we appreciate the opportunity to speak with you today. I believe that the Department has embraced the lessons learned from Iraqi Freedom, from Enduring Freedom, and that we are on the path to more responsive and agile acquisition.

We look forward to your questions.

Mr. ANDREWS. Thank you very much, Mr. Dee.

[The prepared statement of Mr. Dee can be found in the Appendix on page 44.]

Mr. ANDREWS. Dr. Zakheim, welcome back.

STATEMENT OF DR. DOV S. ZAKHEIM, FORMER UNDER SECRETARY OF DEFENSE (COMPTROLLER), MEMBER OF THE DEFENSE SCIENCE BOARD

Dr. ZAKHEIM. Well, thank you very much, Mr. Chairman. It is good to be back in front of the committee, and I am privileged to appear before this particular panel.

I am really going to be discussing in telescoped form the findings of a rather thick task force report; and as you know, the task force was chaired by Jacques Gansler, former Under Secretary for Acquisition, Technology and Logistics (AT&L), who really is an expert in the field.

The fundamental issue facing DOD after more than eight years of war is that it still really doesn't have a coherent system for addressing urgent operational needs coming out of the battlefield. Put very simply, it is just not agile enough to enable commanders to respond quickly in the most effective way possible to the demands of countering systems such as IEDs, these technologies that our enemies are able to gather and put together and employ very quickly.

You just heard that over 7,000 needs statements have already come to the Department over the course of the war just for the Army alone. Right now, the defense acquisition community has created over 20 different ad hoc organizations to deal with the problem. There is nothing that is permanent. The only permanent thing is the JRAC, that Mr. Dee heads up, and that has been around for a few years.

We have to find a way for the Department of Defense to field militarily useful solutions more quickly. Because of the nature of the current threat environment, we need to have institutional changes in acquisition, in programming and in budgetary systems to account for this growing sophistication of flexibility on the part of the threat.

In addition, the Department does not often employ operations research and systems analysis when it determines the best response for an urgent need that sometimes is couched in terms of a mission rather than a specific system or a specific item. We need to figure out what is the best choice. So let me run you through the findings very quickly.

We believe that all of DOD's needs cannot be met by the same acquisition process. We do need, in our view, to codify and institutionalize a separate set, a parallel set, of rapid acquisition proc-

esses and practices that can be tailored to expedite the rapid delivery of capabilities that warfighters need.

We found that because the notion of "rapid" is fundamentally countercultural to the way the bureaucracy thinks. And the bureaucracy—and this is quite right—their approach is to stick within the system, to stick to the rules, to cross every "T", to dot every "I". The trouble is, if you dot every "I" and cross every "T", there are people getting killed out there in the meantime until all the "Ts" got crossed.

So the issue is, how do you create a system—how do you create a culture of dealing with creativity and work-arounds that goes totally counter to the T-crossing and I-dotting? Not simple.

Another finding: Any rapid response has to be based on proven technology and robust manufacturing processes. Mr. Conaway mentioned that. It does not matter where it comes from. If it works, use it.

Another finding: Current approaches to implement rapid responses to urgent needs are not sustainable. As I said, you cannot have a permanent approach to what looks like a very long-term challenge if everything is ad hoc.

And we need an integrated triage process. Some of these requests can be met by logistics activities. They do not really need to gin up the acquisition community; but if you do not have a triage system, if you do not have an overlooking system that addresses these questions, you just do not know. You may be going to the wrong place.

Then, whether there are personnel barriers, budget barriers or process barriers; these are huge inhibitors to successful rapid acquisition.

What we need is an institutionalized capability to deliver joint capabilities rapidly and efficiently. We have got to be aware of the global marketplace. We have got to increase the use of all contracting authorities. We do not do that.

We need a different workforce culture, and we need to incorporate good practices that do exist because, in these 20 ad hoc organizations, if you actually go through them, you will find some good practices, but they are not across the board.

So what are our recommendations?

First, a dual acquisition path, as I mentioned. The only way to really deal with this is to have a separate path with a separate culture, getting the people who are the best and the brightest. And we should have a standard definition for what we mean by an "urgent need." You know, there are JUONs, there are ONs. I mean, there is an alphabet soup of different ways of dealing with these urgent needs, and the definition ought to be that an "urgent need" is one that if left unfulfilled, will seriously endanger personnel and/or pose a major threat to ongoing or imminent operations, period. That is what should be an "urgent need."

Second recommendation: Both the executive and legislative branches have to create a fund, in our view, for rapid acquisition and fielding, something like the Small Business Innovative Research Fund, SBIR. We think it ought to be about 0.5 percent of the DOD budget, it should be replenished annually with a cap of about $3 billion, and the funding should not expire.

Now, you just heard a lot more modest request did not get through. We believe that, if you are really serious about rapid acquisition, over the long term and in an institutional way, this is what you have to do. This is a partnership between the executive branch and Congress.

And we believe that the funding should be transparent. We discussed this at great length on the task force, and I think you remember that. We would issue quarterly reports for this. Congress could require additional notification. There would be an oversight group. The group would not only involve DOD personnel, cochaired by the Under Secretary for AT&L, right now Ash Carter, and the Vice Chairman, right now General Cartwright, but also representatives from the combatant commands, who are members, and Congressional appropriators could be invited as permanent observers. In other words, Congress would have a sense of hands-on oversight.

The third recommendation—and this may be the most crucial: The Secretary of Defense (SecDef) should create a Rapid Acquisition and Fielding Agency (RAFA). It should be within the office of AT&L. It should look for what Mr. Gates himself called a 75 percent solution. It should be similar organizationally to the Defense Logistics Agency and to the National Security Agency, led by a three-star-level officer reporting directly to USD AT&L and dotted line to the Vice Chairman.

The mission would be purely and simply to address combatant command needs rapidly with proven and emergent technologies within 2 to 24 months. If you cannot do it within 24 months, it is outside the bounds of what we mean by "rapid acquisition."

I list in my statement a whole list of requirements or things that RAFA would manage, and I can get back to those if you ask me to. It should not be a large workforce—the best and the brightest, both from the military and the civilian, with incentives for both the military and the civilian side to put the best and the brightest people in there, but small enough to be effective, large enough to carry out its tasks. And we would hope that there would also be parallel organizations within the services to work with this new RAFA unit.

Fourth recommendation: Initial funding and billets for this new organization could be based on absorbing and integrating existing programs and organizations. You can imagine this will be the biggest bureaucratic fight of all. Taking people and money is not easy, let me tell you. I have been there.

Fifth recommendation: DOD should establish a streamlined, integrated approach for rapid acquisition. This RAFA organization should deal with essentials only in terms of both what is required and how quickly it is fielded. Two to 24 months should be the fundamental guideline, and RAFA and the services should manage the actual process of getting into production.

We believe it is imperative that the Secretary of Defense, the Joint Chiefs of Staff and the service leaders begin to implement all five of these recommendations. In this regard, it is really gratifying that Under Secretary Ashton Carter has articulated concerns similar to those of the task force, as you just heard, and as he actually mentioned in a recent meeting of the Council on Foreign Relations in front of a very large audience.

So we know the Department's heart is in the right place—there is no question about it—but existing urgent needs remain to be fulfilled. With increasingly limited resources available to fund them, the potential for new and more devastating capabilities from adversaries continues to enlarge; and we strongly believe—and we know everybody in this room agrees with us—that the men and women of the Armed Forces, who stand in harm's way, deserve nothing less than the support of a new, streamlined system to meet their urgent battlefield needs.

Thank you, and I look forward to your questions.

Mr. ANDREWS. Doctor, thank you very much.

[The prepared statement of Dr. Zakheim can be found in the Appendix on page 51.]

Mr. ANDREWS. Mr. Sullivan, welcome.

STATEMENT OF MICHAEL J. SULLIVAN, DIRECTOR, ACQUISITION AND SOURCING MANAGEMENT, U.S. GOVERNMENT ACCOUNTABILITY OFFICE

Mr. SULLIVAN. Thank you, Mr. Chairman. It is a pleasure to be back before the panel. I appeared a couple of months ago, discussing other matters. Today is about rapid acquisitions.

Last year, we reviewed the Mine Resistant Ambush Protected rapid acquisition program to determine if it was able to deliver urgent capabilities to the field in a timely manner, and we found it to be very successful in doing that. I see four essential keys to that success that are germane to today's discussion.

First, the Department kept operational requirements to a minimum. Second, the program used only mature technologies and stable designs—something we have heard from everybody today. Third, the program was given the highest priority and a "DX" rating by the Secretary of Defense. And fourth, the Department ensured full and timely funding for the program.

The question today is: Can this formula be applied to all of DOD's acquisitions and the broader acquisition process?

Certainly, the first two keys to success, doable requirements and known technologies, are possible under today's process. In fact, due to recent acquisition reform legislation by the Congress and the Department's own changes, the process has policies in place that encourage those things. In fact, there are a handful of acquisition programs, past and current, that have adhered to these principles and have succeeded or appear to be doing very well, such as the F–16 and the F/18–E/F programs, the Joint Direct Attack Munition, the Shadow UAV, the small diameter bomb, and more recently, the P–8A and the SM–6 programs. However, this acquisition culture rarely accepts the 75 percent solution, which is very much what those programs represent. So they remain the exception and not the rule.

On the other hand, the last two keys that I mentioned above are not possible across the broader acquisition process today. First, not every program can be the highest priority, and second, there are constraints that every program must accept when it comes to funding. Therefore, we see merit in the recommendations that Dr. Zakheim just went through from the Defense Science Board study on urgent needs that was issued, I think, this past July, which of-

fered two separate acquisition processes, which he went through—a rapid process and a deliberate process.

The study deals with the assignment of highest priority by suggesting a triage process that would characterize the urgency of the need and exhaust other nonmaterial solutions, as Dr. Zakheim talked about; and it also recommends the highly transparent rapid acquisition fund. I think you would put in kind of a half a percent of the DOD budget as a starting point for that to ease the availability of funding.

These are ideas that would improve our rapid acquisition processes, and I think we agree with that. The report did not focus too much on the current process or the deliberate process in detail. That was not necessarily its objective.

I would like to bring a new dimension to our discussion of acquisitions that has not received a lot of attention and which could, in our opinion, be another game-changer for the acquisition process. Mr. Dee referred to it a little bit. It has to do with science and technology.

For over a decade, GAO has issued a broad body of work that examines best practices and underscores the need for all that we talked about—faster development times, more predictable costs and faster delivery to the field using best practices. As early as 1999, we reported that successful enterprises achieve this by separating technology development from product development. That means not allowing immature technologies into the acquisition process, and investing significant time and money in maintaining a vibrant and relevant technology base that can fuel acquisition programs with needed technologies more quickly.

We have, for years, noted that, while the Department must often depend on beyond-the-state-of-the-art technologies to maintain our national security, it does not fund or organize its science and technology organizations and processes to bring those technologies to acquisition programs that require them. As a result, our current acquisition programs are continually faced with needing immature technologies to make great advances in weapons systems, something the MRAP did not have to do.

We can do better than that with the current process, so I would like to submit an additional dimension for this panel to consider as it continues to work on improving acquisitions.

I believe we can improve the chances of the current process by examining the best ways to organize, fund and coordinate the Department's science and technology organizations. A more vibrant technology base would allow the Department to manage significant risk in its proper environment where the investments are less and where there is time for trial and error and discovery, if you will.

Investing more up front and gaining knowledge and demonstrating technologies before they have to go on to acquisition programs seems appropriate for a national security mission that demands cutting-edge performance in concert with speedy delivery of critical capabilities to the warfighter; and we would do anything the panel or the committee would like to work with you on in trying to develop best practices in that area.

With that, I will conclude, and I look forward to any questions.

Mr. ANDREWS. Well, thank you Mr. Sullivan.

[The prepared statement of Mr. Sullivan can be found in the Appendix on page 73.]

Mr. ANDREWS. Thank you to each member of the panel. You have completely met our high expectations this morning. We appreciate it very much.

Mr. Sullivan, I will start with you. The conclusion of your testimony really spoke to this.

One of the observations about the success of MRAP was the use of mature technologies. It is not hard, though, to imagine a situation where the next time there is an urgent need there will not be a mature technology there to meet it.

I agree with you. In the absence of that mature technology, a rapid acquisition process does not make any sense at all.

I think I heard you recommend that we create a sort of bullpen of technologies that perhaps have not been used yet, but would be on call for that kind of situation. Describe for me a little more about how we would define the mission of that organization that would develop those technologies. How would we derive the requirements, for example?

Let's say that we assembled a group of scientists and firms inside and outside the government and said, "We want you to start thinking about and developing technology that we think there is a high probability we are going to need in a hurry." Who would set the requirements for that organization and how?

Mr. SULLIVAN. Well, the work that we have done in the past on that—and it has been a while to do that, but we tried to do a best practices look at that. So we looked at corporations as entities as you would, say, the Department of Defense. I think the critical thing that has to happen is that there has to be corporate leadership, and there has to be some unifying factor for that, that can break down the stovepipes.

You know, for example, there are many companies that have different product lines——

Mr. ANDREWS. If I may, for whom in the DOD organization do you think this leader should work?

Mr. SULLIVAN. I think, right now, under the Under Secretary for Acquisition Technology and Logistics, it would work fine because DDR&E and the Science and Technology (S&T) community would come under that.

Mr. ANDREWS. Well, this sort of segues into a point that Dr. Zakheim made about a legal definition of "urgency." I think that you are on target with your definition.

Who should be the adjudicator of that definition? In other words, who should make the decision that a particular proposal meets the definition of "urgency"?

Dr. ZAKHEIM. Well, that would be, in my view—and I think my colleagues on the task force would agree—it would be the Director of RAFA.

Now, you get the needs coming in. If you had an organization that was dedicated to getting things out on the street—or actually on the battlefield—within 24 months, then that is the person who conducts, his staff or her staff conducts the triage and makes that definition.

Mr. ANDREWS. How do we avoid the inherent cultural problem around here that potential vendors of these products would have a huge incentive to define everything as "urgent"? How do we get around that?

Dr. ZAKHEIM. Because the requirement will not be generated by the vendors. The requirement is generated by the field. I think that is what Mike Brogan was talking about in terms of MRAP.

General BROGAN. I would submit, sir, that certainly the adjudicator of whether or not it can be conducted in a rapid manner would be the organization that Dr. Zakheim described. But determining that a need is urgent and that it endangers U.S. personnel or mission accomplishment has to come from the commanders in the field, the Combatant Commander, the Joint Staff, and the Joint Requirements Oversight Committee.

Mr. ANDREWS. Exactly.

Dr. ZAKHEIM. I agree with that entirely.

Mr. ANDREWS. I would, too.

I think that the important second part of that clause, though, is "come from the commanders in the field" to whom?

Sadly, the case of the MRAP was obviously urgent. We had young men and women dying, and the urgency was painfully obvious. I think there are other urgencies that would not be so obvious because the immediate costs would not be so high; and I want to be sure that we are acutely tuned in to the reports from our commanders.

Let me just ask a follow-up.

Dr. Zakheim.

Dr. ZAKHEIM. I think, maybe, the way to look at it is this: You get the requirements coming in, and they are defined as "urgent," and there are multiple requirements; and that is, I think, what you are talking about.

Mr. ANDREWS. Yes.

Dr. ZAKHEIM. That is what the triage, to some extent, is about. That is why you need some operations research and systems analysis as well.

But finally—I mean, for instance, if this three-star is getting calls from different four-stars, which could happen, that is why this person reports to the Under Secretary of AT&L with a dotted line relationship to the Vice Chairman of the Joint Chiefs so that for those really high-level decisions you have high-level support.

Mr. ANDREWS. Let me ask you a question, Mr. Dee, about the 233 JUONs that have been processed. There are 59 left unresolved.

Are there data that would characterize the 174 that have been resolved? Have they each been resolved to the level of success that we have here? How would you generally characterize the performance of the resolved JUONs?

Mr. DEE. To call a JUON "resolved" would mean that its capability is provided to the satisfaction of the combatant commander in dialogue with the component task forces. So all of the JUONs that have been closed and that are considered resolved have met the satisfaction of the combatant commander.

Now, whether or not it met the performance criteria that was originally laid out in that original JUON may or may not be true. What happens is, after a JUON comes in, as has already been dis-

cussed, a triage does go on, and there is a discussion and a dialogue back with the combatant commander.

Mr. ANDREWS. Have we developed metrics that are external to the judgment of the commander in the field, the external data, objective data?

Mr. DEE. No, sir, we have not.

Mr. ANDREWS. Do you think we should?

Mr. DEE. Yes, sir. Absolutely, we should. But there needs to be a recognition that the range of urgent requirements covers a very broad scope of technologies, of capabilities that recognize—and we are struggling to develop metrics for this.

Mr. ANDREWS. There is a final point I will make—and then I want to yield to my colleagues—for any of the members of the panel to submit for the record.

It is my understanding that the most important metric in the MRAP program, which I would express as the reduction in fatalities per attack and serious injuries per attack, is pretty compelling. If someone could submit that for the record, we would like to see it. In other words, translate this into lay people's language so I can understand.

[The information referred to is classified and retained in the Panel files.]

Mr. ANDREWS. The odds of an IED attack killing the occupants of the vehicle dropped dramatically, and the odds of serious injury dropped dramatically as a result of the success of the program. That is what we care the most about, as you said, General, very, very well. So anything that would quantify that we would appreciate.

Mr. Conaway.

Mr. CONAWAY. Well, thanks, Chairman.

Again, thanks, gentlemen, for being here.

General, I will start with you. You mentioned that the MRAP met all of the existing requirements and processes that it went through, that you did not skip anything.

In hindsight, are there things that were really more form than substance or additional things that we can do to eliminate barriers and just pencil-pushing that really did not protect the system from exploitation and did not get the gear to the people quicker?

Can you give us any kind of recommendations to change things that you saw now that you have been through it once in a very successful way?

General BROGAN. Sir, my sense is that we took a look at all of the documentation that is required for the acquisition Category 1 program, because Secretary Krieg made it apparent early on that eventually it was going to rise to that level and be designated as such.

We looked at which ones we needed in the program office to be able to do the job and accomplish the mission, which ones satisfied statutory requirements for reporting, which ones satisfied regulatory requirements. We decided we would do the ones that the program office needed done to accomplish the mission; we would tailor each of the rest of them and either provide an abbreviated version or push it until later in the process when we had more time and could, in a deliberate manner, lay it out.

One of the examples would be the systems engineering plan. Because we were buying designs that existed and were going to be integrating known command and control systems, situational awareness systems, jammers, things like that, weapons onto the platform, we did not need a long, drawn-out systems engineering plan that told us all the steps we would go through with initial design review and critical design review and things of that nature.

So we tailored the Systems Engineering Plan (SEP) early on, and have just, frankly, in the last couple of months, completed the full-blown version and delivered it.

Mr. CONAWAY. Okay. Why did you need to complete the full-blown version? I mean, somebody had to do that. Their attention could have been on something else besides, you know, documenting the file, so to speak.

Was that essential to do that? Maybe we could get the GAO to come look at that system.

It is things that you do just because it says you have to do them, but they do not contribute to protecting the taxpayer—well, getting the gear, first, and then protecting the taxpayer, second, which is what a lot of that stuff you are talking about does. If we do not need to do it, you simply did it just to pay for the file——

General BROGAN. Well, we did it, sir, because we did need to document the configuration management process. You know, we fielded these vehicles quickly. We have updated them and have added additional capability to them, as we have gone on.

One of the ones particularly important right now is adding the independent suspension system. These vehicles were fielded with solid axles, leaf springs, not made to go off road. By upgrading that suspension, we can.

And so configuration management is one of those systems engineering practices that does have value, but we did not need it early on. We do need it now.

Mr. CONAWAY. All right.

Doctor, you talk about a dual process, new silos, but you also used the word "culture." Then help us distinguish between Recommendation 1 and 3 as to why that wasn't just one recommendation.

Dr. ZAKHEIM. Well, I think you have got to really focus quite specifically on the cultural side of things. If you create a separate organization and you have not really paid a lot of attention to the kinds of people you are bringing in, that organization will wind up looking like the original organization very, very quickly. They will find a way to cross every "T" and dot every "I".

When Congress passed Goldwater-Nichols, it changed the entire power balance inside the Department of Defense. I mean, when I served in the 1980s, the Joint Staff was a place where people went prior to immediate retirement. It was a place, frankly, for dead-enders.

Goldwater-Nichols turned this on its head. It essentially says you cannot become a flag or a general officer unless you have got that Joint badge on your chest. All of a sudden, all the best people start coming, and the Joint Staff is exceedingly powerful.

When Mike Brogan said a few minutes ago that, you know, the RAFA Director would not work on his or her own, that is abso-

lutely right. In fact, the report specifically says it works with the Joint Staff. Why? Because the Joint Staff already has been making choices and doing triage.

What we are saying in the report is, you need the same—and there are all sorts of programs. There is the Presidential Management Fellows Program. There is the Intergovernmental Personnel Act (IPA) program. There are a host of different programs that get best civilians in. We need to ensure that the best military people come in, because then you create a truly powerful organization that can make choices.

Mr. CONAWAY. So how does Recommendation 3 not fulfill Recommendation 1?

Dr. ZAKHEIM. Oh, it does.

Mr. CONAWAY. So they are the same?

Dr. ZAKHEIM. Again, the reason that they are separate, frankly, is that it is an implementer. You can have Recommendation 1, but without Recommendation 3, it ain't going to work.

Mr. CONAWAY. Okay. The definition that you mentioned, "urgent," shouldn't it include specifically the 2-to-24-month thing? Because it is urgent that we develop a robot that takes the place of our soldiers. It would meet the other two definitions.

It is not even remotely possible to get that in 24 months, because if you create this new organization, there will be competition for resources. There will be competition for work. There will be competition for people to the extent that RAFA is the premier organization you are trying to create that would attract the best and the brightest.

So shouldn't the 24-month thing really be codified as well?

Dr. ZAKHEIM. Well, it could be. I mean, we discussed that quite a bit, and I think both of these gentlemen were there when some of this was discussed.

The definition we gave was kind of an all-encompassing one. I think people could argue whether it is 2 months or 3 months, 24 months or 26 months. We believe that this is what RAFA should be doing.

There may be cases where you want to do something urgently, and it is outside the bounds. If you want to write it in, I personally would have no issue with it, frankly.

Mr. CONAWAY. Okay. You mentioned a triage system. There has got to be a triage system in place now, doesn't there?

Dr. ZAKHEIM. There is. As you heard, what there is not is a systematic approach that includes, for instance, ORSA, the Operations Research and Systems Analysis. In other words——

Mr. CONAWAY. Okay. Well, is that something that could be done separate and apart from any kind of legislative attention to it—the system, itself, Mr. Dee—or couldn't you fine-tune the triage system on your own?

Mr. DEE. Yes, sir. Absolutely. Absolutely.

Mr. CONAWAY. Okay.

Mr. DEE. There is a triage system and there is not a triage system. There are multiple triage systems depending on the category with which an urgent need comes in. Every service, again, has got a process that they review their needs, urgent or traditional needs,

as they come in the door, and they assign a priority to it and add resources. So that does go on.

In the joint world, we do have a triage process that begins with the Joint Staff and their existing Functional Capabilities Board to be able to look at potential solutions for this and a proper provider. So we do have a triage process that goes on now.

What we do need to do, quite honestly, is to be able to have that better dialogue with the requester and a recognition that these requirements, as they come in, need to be considered somewhat fungible based on the available technology that you have got—potential solutions, maturity, a balance of the operational risk and that programmatic risk. That needs to be a dialogue between the building folks and the folks in the field.

Mr. CONAWAY. Can you report back to us on the progress that you are making on the things that you can do on your own, that you think are appropriate versus the things—because, as the chairman may say at the end of the process here, we are focused on the 2011 Defense Authorization Act. And so we are looking for things to do legislatively, but we are also anxious to get things done that you can do on your own.

[The information referred to is classified and retained in the Panel files.]

Mr. DEE. Absolutely.

Mr. CONAWAY. I yield back, Mr. Chairman.

Mr. ANDREWS. Mr. Conaway, I know the staff will appreciate that, as they have finally finished work on this year's bill, we are giving them assignments immediately that next year's bill has already begun.

Mr. CONAWAY. No good deed goes unpunished.

Dr. ZAKHEIM. Mr. Conaway, I would just point out that Recommendation 3, of course, goes beyond culture and goes though this whole RAFA organization. In theory, one could argue we will have a separate rapid acquisition approach without setting up an organization. Quite frankly—and you are fully aware of how the building works—that will be one of the arguments, Why do we need a new organization?

So we believe, unless you have a champion that pushes, that is truly in charge, you could go with Recommendation 1, but it may not be fully implemented.

Mr. CONAWAY. So the issue is to step back from the Goldwater-Nichols because you are going from "all under one hat" back to separate silos.

Dr. ZAKHEIM. Exactly.

Mr. CONAWAY [continuing]. And the risks attendant with that.

Mr. ANDREWS. The Chair recognizes Mr. Cooper.

Mr. COOPER. Thank you, Mr. Chairman. And thank you members of the panel.

I am worried there is a little bit of an error of self-congratulation here about the relative success of acquisitions, particularly in regard to MRAPs. We mentioned three things that worry me.

Number one, what we are talking about here is relative success in fielding weapons against a Third World force that used elemental technology like garage door openers and very cheap explosives. A lot of this was revealed in Secretary Rumsfeld's original

2003 memo about the cost-benefit equation of this type of asymmetric warfare.

How would we be faring against a sophisticated enemy? I shudder to even ask that question.

General BROGAN. It wouldn't even be close. We are very well capable of dealing with a sophisticated enemy. We have built the U.S. Armed Forces for that for years. We now have to adjust in order to deal with the asymmetric enemy, sir.

Mr. COOPER. Well, let's talk about that adjustment, fielding MRAPs.

In your testimony, General, you say the initial requirement was 1,185 in November 2006, and now the requirement is 22,000. So far, with all of our success, 14,000 have been fielded in theater, and you said that delivery of trucks to the warfighter was the test. So we are still far short of the 22,000.

The key is this: The current issue of the Joint Forces Quarterly says that probably 1,609 of our soldiers ended up being casualties due to slow fielding of MRAPs. Now, it is painful to ever quantify a shortcoming like that, but it is in the Joint Forces Quarterly. This is not some attack from the fringe. So, it is always impossible to be perfect, but I would suggest that by our own measures, we are not even coming close.

General BROGAN. Sir, certainly it took us a while to make the decision to pursue MRAP. Once that decision was made, I think that is the topic of the success that was achieved.

The requirement was 16,238 for a long time after we got to that plateau, and we have delivered all but a handful of those vehicles into the hands of the U.S. Government. Now, some of those have gone to home station training bases, some are being used for testing evaluation. We have fulfilled the requirement for all of the baseline MRAP vehicles in Iraq and Afghanistan. That has been satisfied.

Just recently, in fact in June of this year, the MRAP all-terrain vehicle requirement went from 2,080 to 5,244, and then last month went up to 6,644. Those are the ones that are not yet fulfilled.

We are in production in that vehicle. Oshkosh is the manufacturer. They were ahead of schedule in July, August and September. They are ramping up to be able to produce 1,000 of those vehicles per month in December and are on track to get there.

Mr. COOPER. That, in itself, is a fascinating situation. Here we have a slump in the automobile industry in America and we have sole-sourced to one manufacturer that most people have never heard of, and it is kind of remarkable when, in World War II, a 24-month requirement, the war was half over by then.

General BROGAN. Respectfully, sir, we did not sole source. This was a full and open competition. Oshkosh has been building trucks for the U.S. military for more than 30 years.

Mr. COOPER. But there is only one manufacturer.

General BROGAN. There is one company in charge. They are using two production facilities.

Mr. COOPER. But don't we have other auto companies in America and truck companies that are looking for work?

General BROGAN. Yes, sir, but fundamentally building large armored trucks is not quite the same as a passenger sedan.

Mr. COOPER. But in World War II, we didn't devote our entire aircraft or ship to one company.

It is kind of interesting how we approach this, again, dealing with a Third World enemy. And perhaps we are perfectly and immaculately equipped for the First World enemies that we may be facing, but I am just suggesting they don't have too much high technology on their side.

The third point is this, and here I am faulting Congress: The testimony says, "Currently there are no funds in the FY 10 base budget under consideration for a rapid acquisition fund, despite the administration request for $79 million."

So here I am faulting Congress. This is pretty amazing. If this is something to brag about and we zero fund it, and we require the Pentagon to beg, borrow and steal to get the monies from other accounts to put in, it is kind of embarrassing.

Is this something worth bragging on, or not? Maybe Congress doesn't get it.

Meanwhile, our own military publications are saying 1,609 unnecessary casualties due to slow fielding of one type of weapon system that all our brilliant strategists and technicians somehow didn't anticipate the need for until years—years, into these conflicts. This is amazing.

Mr. Dee.

Mr. DEE. Sir, if I may just make a couple of comments on your observations.

The comment concerning the current nature of today's war and preparations for future capabilities, I think when you are talking about and you are looking at our acquisition process, I think it is important to remember the way that Mr. Gates, Secretary Gates, is talking about future wars as hybrid wars. And there is not going to be a big distinction—there is going to be a mix of capabilities and a mix of adversaries and a mix of weapons and threats we are facing that range from the same things we are seeing today in terms of improvised explosive devices and other kinds of improvised weapons and easily commercially available weapons, and the high-end future missile systems, et cetera, et cetera; and you need to be able to do those all at once.

Recognizing that the technology is moving so quickly these days, whatever we do for rapid acquisition needs to be applicable to the way we think about longer-term conventional warfare. We need a capability and we need a system that can be responsive.

Regardless of what enemy we are talking about, we are always going to have unanticipated needs in war. We did in World War II, and we are going to have them in the future wars, as we have them today.

On the funding thing, there is a lot of discussion, and Congress has been very supportive. And it is a difficult problem because the Department gets a lot of money, so why can't the Department just move money where they need to move it? Just the reality is that there is a lot of competition in the Department for resources because of this conflict between building future capabilities and responding to urgent needs.

So the ability to have a rapid acquisition fund, as Dr. Zakheim has pointed out and the Defense Science Board, and as the MRAP

task forces had and as JIEDDO has, if you want to do things quickly, you need quick, immediate access to resources. Without that, you are going to get stuck into the competition for resources within the building and the reprogramming actions, which all, in and of themselves, takes time to do.

Mr. COOPER. If I could just inject, Dr. Zakheim's proposal was for a $3 billion fund, and he points out in his testimony that JIEDDO is already at $10 billion, and with it a heavy bureaucracy and uncertain results. So sometimes when we do throw money at a problem, you don't necessarily see the payback.

I don't want to interrupt you.

Dr. Zakheim.

Dr. ZAKHEIM. Well, obviously throwing money at a problem isn't the best way to do it.

One of the things that I found when I was Comptroller is that when you go and ask for something like a $3 billion fund that we propose, we actually censor ourselves in the Department, and the reason is that we keep hearing from the Hill, these kinds of funds are slush funds and you are not going to manage the money right. So, we are very hesitant to come up with these sorts of requests.

One of the reasons the DSB Task Force recommended this kind of oversight group and the regular reporting on a quarterly basis, and even more frequently as needed, was to allay these congressional concerns. Because if you are talking about this kind of a fund, where there isn't anything specific, then the competition inside the Department for those resources is tremendous; and one of the arguments made is, well, Congress isn't going to give you the money anyway, so why are you throwing $3 billion out the door? That is why these requests don't get made.

We are suggesting a vehicle for assuring Congress that they have the transparency, that you have the visibility, that you have a say in things; so then it becomes a credible request, and then it is more likely that something along those lines may actually be put in the budget.

Mr. COOPER. Mr. Sullivan.

Mr. SULLIVAN. If I could, just to add to that, talk about the funding, the only problem here is not just the immediate access to funding, but it is the way that—if we are talking about fixing the current process, the funding, the way that they program and fund programs today. In fact, GAO looked at, years ago, some kind of a systems engineering fund that could be established, that also didn't really go anywhere because it would be thought of as kind of a slush fund.

But there is a two-year wait for any program that starts up in the Department of Defense now that—if it is not urgent, there is basically a two-year lag time between trying to get your program going and receiving funding. That is an issue that is yet to be resolved, as well.

Mr. COOPER. Thank you, Mr. Chairman. I see my time has expired.

Mr. ANDREWS. Thank you.

The Chair recognizes Mr. Coffman.

Mr. COFFMAN. Thank you, Mr. Chairman.

One of the issues that has been discussed in this committee is the difficulty with continually placing requirements, new requirements, on a project without, really, a deadline.

I think, Dr. Zakheim, you mentioned the 75 percent solution. There is always a drive for a 100 percent solution.

So in this process of rapid acquisition, would you envision a cutoff, and beyond that cutoff, that maybe new requirements would have to come to a higher threshold? I know it was mentioned, Dr. Zakheim, again, that you said, maybe have Congress involved in the process, at least as observers; that maybe beyond a certain deadline that a requirement change would have to go up a higher level to sort of discourage that.

Any comments on that from anybody?

Mr. DEE. Sir, I mentioned a little while ago that the requirements need to be viewed as fungible, and that is true. As a requirement comes in, it needs to be balanced against the available, the maturity of the technology, what can be done quickly in order to provide a capability to the field. But that dialogue needs to happen before the decision is made to produce something.

So, as this triage develops, you need to have the dialogue with the field. You need to figure out what is good enough. You have to answer the question, what is good enough to mitigate your immediate capability for the gap that you have got. And them you reach your production decision, and then you need to lock that requirement so you can actually get on with it.

Not to preclude future spirals or future improvements to the capability you delivered, but you need to spend more time on that upfront dialogue, figuring out what you need to have. And when you figure it out and you agree to it and you resource it, then you get on with it; and the next spiral is viewed as the next iteration of something. But you don't interrupt the production line, you don't interrupt your acquisition efforts to continually morph the capability.

Dr. ZAKHEIM. I think Mr. Dee just put it very well. If you have got a desire to hit that 99 percent capability, that is part of a dialogue with the services and the Joint Staff; and that additional 25 percent, as it were, the system that gets you that 25 percent, that goes back in your regular acquisition system.

Now, one thing I think might be useful to clarify, the task force deliberated as to whether we should look beyond just rapid acquisition at this larger system. We decided that, A, it was a little bit out of scope from what we were being asked. But, more importantly, that is such a long-standing headache, as everyone knows, that we figured if we could lay out a process for rapid acquisition that made some sense and develop some best practices, those could then be imported into the larger acquisition system.

Let's face it. We are not doing ourselves any favors with an acquisition system that takes 15 years to get something out the door. Think about the fact that from the time Hitler took power, when the Germans were training with broomsticks, to the time he marched down the Champs-Elyses, was only 7 years, and technology now improves so much more quickly.

We have to do something about the larger acquisition system, and we thought that perhaps if we can come up and the Depart-

ment working with the Congress comes up with a viable rapid system, we could then extract some next best practices for that, for the kinds of things that Mr. Dee and you were just talking about, moving from that 75 percent solution to that 99 percent solution.

General BROGAN. If I may, sir, with MRAP in particular, when the initial request came in, there was one requirement that we did not have the ability to immediately meet, the Explosively Formed Penetrator (EFP). And through a consultative process between the JRAC and U.S. Central Command, we locked down those requirements.

Then Admiral Giambastiani, as the Vice Chairman of the Joint Chiefs and Chairman of the JROC, made it very clear to everyone involved that he would control not only key performance parameters, which normally reside at that level, but the key system attributes of the vehicle as well, and that no one could change them without JROC approval.

So that kept us from having to deal with requirements creep, with all the good ideas that people want to add later on, and allowed us to move forward very quickly.

Then when we later got a solution to EFP, we had built in the ability to retrofit it into the vehicles, and we were able to go back and add that to vehicles that were previously fielded and include it in those that were yet to be produced.

Mr. SULLIVAN. If I could just make a point, I agree with everything everyone is saying here. If you look at MRAP today, in fact as an urgent need, as a rapid acquisition, it actually has become the first increment of what will probably become a regular acquisition program that has block upgrades for years to come.

So the tech base, what they did right was they kept those requirements to what they can do right now, get some breathing room, get our troops some equipment, and now they have an opportunity in the regular process if the tech base, if and when the tech base responds. I am sure there are all kinds of good things that come out of that. Open systems, I am sure, has been looked at in that regard,

The programs that I mentioned in my oral statement were part of the regular acquisition process, and more or less they did that. If you go back and look at the F–16, it held the line on requirements, and all of those others that I mentioned held the line on requirements.

One thing that we are looking at now, it is such an exception in the regular process to be able to start a program with doable requirements. We are trying to figure out how those programs were able to do that in this culture.

Mr. COFFMAN. Mr. Chairman, I yield back.

Mr. ANDREWS. Thank you.

Mr. Conaway, do you have any concluding remarks this morning?

Mr. CONAWAY. Just one thing quickly.

Mike, the transitioning in Afghanistan from the units that were originally bought for Iraq, you mentioned that. Walk us through a little bit of how quickly you were able to identify the fact you had to go off road in Afghanistan and how nimble the system was to meeting up a new version or new variant of the MRAP.

General BROGAN. Yes, sir, there are two pieces to that. The first is, we fielded some baseline MRAPs into Afghanistan, principally the RG–31s, because they were the smallest, had the tightest turning radius, which was one of the attributes that the warfighter there was looking for.

Then he asked for a vehicle that had the off-road capability of a Humvee, but the survivability inherent in an MRAP, and that was really the genesis of the MRAP all-terrain vehicle.

Particularly in my service, because we didn't want to buy a whole additional fleet of vehicles, the Commandant was very interested in our ability to upgrade the suspension of those vehicles that we had already purchased and be able to employ them in that environment.

We had also been receiving complaints from the field about how poor the ride quality was in the vehicle. It is a heavy truck, solid axle, leaf springs. It is painful if that vehicle leaves the road.

We had started in the program office a search for an improvement for the suspension, and we did that through the Nevada Automotive Test Center. We down-selected to what turns out to be the same suspension that is on the Marine Corps's seven-ton medium tactical vehicle replacement truck, built by Oshkosh, already in the system, all the repair parts are available; and we were able to put that onto our Cougars, both Category I and Category II. We are now looking at putting it on the RG–33s, and we are in the process of upgrading that suspension so we can make use of the vehicles already purchased by the taxpayer in an environment that is far more inhospitable from a terrain standpoint.

So we have had those two tracks going on. One, an MRAP all-terrain vehicle, is going to be much smaller than Cougar. Cougar is about 40,000 pounds, combat loaded at its lightest. MRAP all-terrain is right at 30,000, combat loaded.

Mr. CONAWAY. Give me a sense, Mike, of the time frame this all occurred in.

General BROGAN. Yes, sir. We received the JUONs for MRAP all-terrain in the fall of last year. We conducted the competition through the late winter. It was a full and open competition. We required the vendors to deliver trucks with their proposal. That kept all the PowerPoint guys away, folks who just had good ideas but no hardware.

Then we whittled that down to five vendors who had actual, viable candidates. We gave each of them a contract with an initial delivery order for three more vehicles that we put through a rather rigorous test regime. We provided them the results of the test, gave them the chance to revise their proposals in what is called a fair opportunity revision. Then we graded those proposals, the test results and made our contract production award to Oshkosh.

We had thought that we may need to use more than one vendor. We had also—I met personally with the leadership of all five of those companies—although one person represented two of them, because BAE had two entries in their two different divisions—and asked them before we made the production award decision, "Would you be willing to license your vehicle to someone else to produce if you are the winner and would you be willing to produce someone else's vehicle if you are the loser?" And they all said, "Will you help

us with any monopoly issues, with teaming arrangements?" We agreed to do that. So we had that ability.

Oshkosh is going to be producing 1,000 trucks a month in December. We can only absorb 500 vehicles a month in Afghanistan because of the throughput of other war materiel, because we have to take the soldiers off of the operating bases, train them on that vehicle, and then send them back out.

So—we are going to be producing many more than we are capable of absorbing, so there was no need to really go to multiple vendors in order to accomplish and fulfill this requirement.

Mr. CONAWAY. Thank you.

Mr. Chairman, that is it.

Mr. ANDREWS. Thank you very much.

General, you have done a lot for your country, but figuring out a way to reduce PowerPoint presentations may be your greatest contribution, for which we are very grateful.

I want to thank the panel for their excellent preparation and contribution this morning. As we proceed, we are going to examine two questions as we make a report and legislative recommendations to the full committee for next spring. One of them will be ways to further improve and fine tune the rapid acquisition process, whether it is to assure the tech base that is necessary, whether it is to tighten and explicitly define the definition of urgency, whether it is to sharpen the triage process. A lot of good ideas we have heard this morning will go into that consideration.

The second area of inquiry will be the lessons learned area, the extent to which we can take this exceptional process and use its lessons learned in the rule, what is not urgent and not rapid.

We would invite the continued contribution of each of our four witnesses to each of those two questions as we go forward.

Mr. Sullivan, we would particularly welcome your thoughts about the way that this, what I characterize as a "tech bullpen," could be created and funded in moving forward.

[The information referred to can be found in the Appendix on page 91.]

Mr. ANDREWS. We had high hopes for this morning's hearing, and you gentlemen have exceeded those hopes. We appreciate that very much. Any information for the record should be submitted as we had asked.

With that, the hearing is adjourned.

[Whereupon, at 9:22 a.m., the panel was adjourned.]

A P P E N D I X

October 8, 2009

PREPARED STATEMENTS SUBMITTED FOR THE RECORD

OCTOBER 8, 2009

Mr. Andrews Statement for the Record

Welcome to today's hearing on the Department of Defense's Rapid Acquisition Process: Is it a Model for Improving Acquisition? This hearing continues our series of hearings looking at the ways that the Department of Defense can lose value in acquisition in which we are trying to identify the causes of those loses.

The title for today's hearing is ambiguous, because there are indications both that rapid acquisition can occasionally cost taxpayers money, that haste can make waste, and also that rapid acquisition can lead to outcomes that look pretty good compared to the usual way of doing business in defense acquisition.

We will examine one case study in particular, the Mine Resistant Ambush Protected Vehicle (MRAP). There have been a number of challenges in the MRAP program: we got off to a slow start in defining our requirement; the Marine Corps overpaid for some models; and we may find it extremely challenging to sustain them going forward.

At the same time, it is almost unprecedented that DOD was able to go from an initial requirement to having fielded thousands of vehicles to combat in about three years. And these vehicles, while not perfect, have introduced a very capable and important new capability to the battlefield.

So today we try to look at both sides of the coin. Can we protect taxpayers even as we rapidly accelerate the acquisition process, and what it the best way to do so while retaining the speed that is essential in meeting urgent operational needs? And can we learn lessons from the success of MRAP and other rapid acquisition programs that tell us something about how to improve the standard acquisition process.

As we look at these questions, we'll also have to consider whether we should expect that a separate process for rapid acquisition will continue to be necessary going forward, and if so, how do design a structure to execute that process? Before I introduce today's excellent witnesses, let me turn to my colleague from Texas for his opening remarks.

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THE HOUSE ARMED SERVICES COMMITTEE

STATEMENT

OF

BRIGADIER GENERAL MICHAEL M. BROGAN
COMMANDER
MARINE CORPS SYSTEMS COMMAND

BEFORE THE

HOUSE ARMED SERVICES COMMITTEE
ACQUISTION REFORM PANEL

ON

MINE RESISTANT AMBUSH PROTECTED (MRAP) VEHICLE RAPID ACQUISITION

8 OCTOBER 2009

NOT FOR PUBLICATION UNTIL
RELEASED BY
THEHOUSE ARMED SERVICES COMMITTEE

Brigadier General Michael M. Brogan
Commander, Marine Corps Systems Command

Brigadier General Brogan is a native of Orrville, Ohio. In May 1980, he graduated from the University of Notre Dame with a Bachelor of Science degree in Chemical Engineering and was commissioned a Second Lieutenant. Following graduation from the Basic School, he completed Assault Amphibian Officers' Course as the Honor Graduate and was assigned as an Assault Amphibious Platoon Commander, Company D, 3d Assault Amphibian Battalion (3d AABn), 3d Marines, 1st Marine Brigade, Marine Corps Air Station, Kaneohe Bay, Hawaii. After returning from deployment to the Western Pacific in support of Battalion Landing Team 1/3, he was reassigned in August 1982 as the Maintenance Management Officer and Assistant Logistics Officer, 1st Battalion, 3d Marines and completed a second Western Pacific deployment.

In January 1984, Brigadier General Brogan reported to Marine Barracks, Naval Weapons Station, Yorktown, Virginia where he served consecutively as a Guard Platoon Commander, Operations Officer, Guard Officer, and Executive Officer. He transferred to Quantico, Virginia in July 1987 and attended the Advanced Communications Officer Course. Following graduation as an Honor Graduate in June 1988, General Brogan reported to 3d AABn, 1st Marine Division and became the Assistant Logistics Officer. In March 1989, he assumed command of Company A, 3d AABn. During Desert Shield and Desert Storm, the company supported 1st Battalion, 5th Marines and was a part of Task Force Ripper.

In June 1991, Brigadier General Brogan assumed duties as the Logistics Officer at the Amphibious Vehicle Test Branch (AVTB), Camp Pendleton, California. While at AVTB, he completed work on a Master of Arts Degree in Business and graduated with Distinction from Webster University. He also attended the 20-week Program Management Course at the Defense Systems Management College, Fort Belvoir, Virginia. General Brogan returned to Quantico, Virginia in July 1994 as a student. A Distinguished Graduate of the Marine Corps Command and Staff College, he reported to the Office of the Direct Reporting Program Manager, Advanced Amphibious Assault (DRPM AAA) in June 1995, to serve as the Survivability Project Officer. In June 1998, he became the Program Manager for the Advanced Amphibious Assault Vehicle Survivability Program.

Brigadier General Brogan reported to 1st Marine Division, Camp Pendleton, California in June 1999 and assumed command of 3d AABn. In July 2001, he transferred to the National Defense University, Fort McNair, Washington, DC as a student in the Industrial College of the Armed Forces (ICAF). General Brogan graduated from ICAF in June 2002 with a Master of Science Degree in National Resource Strategy. He reported to the Marine Corps Systems Command, Quantico, Virginia and was assigned as the Product Group Director, Infantry Weapons Systems. In February 2004, General Brogan reported to the Office of DRPM AAA for duty as the Expeditionary Fighting Vehicle Program Manager. In September 2006, Brigadier General Brogan became the Commander, Marine Corps Systems Command.

Brigadier General Brogan's personal decorations include: the Meritorious Service Medal with Gold Star, the Navy Commendation Medal with Gold Star, the Navy Achievement Medal and the Combat Action Ribbon.

Chairman Andrews, Representative Conaway, and distinguished members, I am honored to appear before you and for this opportunity to discuss how the Mine Resistant Ambush Protected (MRAP) Vehicle Program can be used as an example of rapid acquisition. But first, on behalf of all Marines and their families, I want to thank you for your continued support for our Marines and all the Joint warfighters as they remain engaged in combat operations in OPERATION IRAQI FREEDOM, OPERATION ENDURING FREEDOM, and other contingencies.

INTRODUCTION

Every day we work to provide our warfighters the best equipment to meet their needs and requirements. Our adversaries rapidly change their tactics, techniques, and procedures. Fielding new or updated systems in response to these new threats has been the goal of the Department of Defense (DoD). The acquisition of the MRAP family of vehicles demonstrates that our current organizations and current regulations are flexible enough to accomplish rapid acquisition as long as there is the will to get it done and a mindset to support the troops engaged in combat.

ACCOMPLISH THE MISSION

One of the hallmarks of the MRAP program was the willingness to accept reasonable risk in order to accomplish the mission. We positioned ourselves to execute an innovative acquisition strategy to meet the evolving threat by taking a rapid, development and fielding approach. The competitive prototyping that Secretary Young wrote into the most recent version DoD 5000 codifies much of the acquisition strategy we employed. We used this strategy to fully explore the marketplace, to reduce the risks and uncertainties associated with development, and to

provide a variety of available options to meet our military requirements. Dr. Delores Etter, former Assistant Secretary of the Navy for Research, Development & Acquisition (RDA), shouldered much of the early burden and made decisions based on recommendations provided by the MRAP Joint Program Office. Secretary Kenneth Krieg, former Under Secretary of Defense for Acquisition, Technology and Logistics, gave us autonomy early in the process, and allowed the Program to proceed without burdensome Office of the Secretary of Defense (OSD) oversight even though he clearly articulated his intent to eventually elevate this to an Acquisition Category 1D Program. Secretary of Defense Robert Gates directed that "the MRAP program should be considered the highest priority Department of Defense acquisition program." He established the MRAP Task Force to speed production and fielding of MRAPs and assigned Secretary Young as the Chairman of the MRAP Task Force.

One of the keys to our success was that the velocity of the Program was directly proportional to the decision speed executed throughout the Enterprise. Key leaders translated their "sense of urgency" and exploited every decision opportunity. They assumed risk and made decisions without always having perfect information.

Secretary Gates also assigned the MRAP program a DX priority, the highest priority in the Defense Priority Allocation System, to assure access to material from all manufacturers (prime contractors, sub-contractors, suppliers and vendors). In this case, we used established policies and processes that strengthened our partnership with industry and built a culture of speed and agility into the program. In short, we have had and continue to have support from the highest levels of the Department. That support flowed to the lowest levels of the program office, Congress, our sister Services and our industry

partners. It allowed us to produce vehicles at a pace not seen since World War II.

CONGRESSIONAL SUPPORT

Congressional support for the MRAP program has been timely and overwhelming. We thank you and are confident that Congress will continue their life-saving support in the coming years. From Fiscal Year 2007 to Fiscal Year 2009, incremental Joint Requirements Oversight Council (JROC) increases to the MRAP vehicle acquisition objective required an iterative budget request/appropriation process to ensure the Program's financial success (see attached slides). The Department submitted multiple Supplemental Budget requests and amendments to Congress. To meet the Program's rapidly changing needs, each Fiscal Year the Congress either fully supported, or added additional funding above and beyond Department budget request. To date, a total of $28.6 Billion has been appropriated by Congress. This includes plus-ups of $3.0 Billion more than originally requested. The Joint Program Office, the Department and Congress maintain full and open communications regarding program status and funding requirements. The MRAP Vehicle Program has always had the funding it needed to fully perform its mission and support our joint warfighters.

OTHER PARTNERS

All members of the team mobilized to get these life-saving vehicles fielded as quickly as possible. This began with the joint community who wrote the capabilities production documents and staffed it in an astounding 45 days. It extended to those in the test community: Marine Corps Operational Test Evaluation Activity, Army Test Center, Yuma Proving Ground, Army Test and Evaluation Command, the Director of Operational Test and

Evaluation, and Live Fire Test and Evaluation. These organizations engaged and approved test strategies and ultimately the test plans, then conducted and reported on the tests. Then, within the sustainment community, the Defense Logistics Agency put in place modifications to the Omnibus tire contract. This helped to facilitize Michelin and Goodyear with molds to increase tire production for the size we needed. The professionals at Defense Supply Center, Columbus, Ohio put in place the sustainment contracts to buy the repair parts and Defense Logistics Information Services in Battle Creek, Michigan assigned national stock numbers. Red River Army Depot, Texarkana, Texas became our warehouse for repair parts and the MRAP University where we train field support representatives. The Office of the Secretary of Defense Industrial Policy surveyed the landscape for pinch points in raw materials and production. They interacted with steel mills and manufacturers of alternators and other components of the vehicles to ensure our ability to meet production and delivery schedules.

Our industry partners were outstanding. They mobilized the industrial base to deliver the components as well as the end products. A lot of people sacrificed for this program. They came to work for these companies knowing it was a short term employment that would end when these vehicles were delivered. But they did it for the Nation and the warfighters.

We built on the speed and agility of our industry partners and from lessons learned on the HMMWV armoring effort. The Program Office established a Government Furnished Equipment (GFE) Integration Facility at Space and Naval Warfare Systems Center (SPAWAR), Charleston, South Carolina. The members of the SPAWAR Charleston team have remained determined, professional, and flexible. From the steep learning curve in 2007 to the "re-tooling" for MRAP-All Terrain Vehicle (M-ATV) they are living

today, they met the integration schedule to continue the flow of vehicles to theater. Defense Contract Management Agency mobilized teams of quality assurance inspectors at multiple Original Equipment Manufacturer (OEM) facilities to ensure that the product being delivered was ready to go to SPAWAR and then be delivered into theater.

The professionals at the United States Transportation Command managed the movement of thousands of vehicles from the United States to Iraq, Kuwait, Afghanistan and other locations.

In parallel with all of the rapid acquisition actions taken here in the United States, extraordinary speed and support of the fielding and sustainment functions were made possible through effective partnerships with the user community. Our Joint Program Office extended its reach with a significant Joint Program Office Forward component that was critical to rapid responsiveness and flexibility with the Combatant Commanders and Sustainment Brigades in both Iraq and Afghanistan. Effective and persistent communication was a critical factor in the successful deployment of the MRAP vehicle fleet. The trust and credibility afforded to our teams by those in the fight cannot be overstated. The capacity and willingness to work through hard issues was enabled by this support.

Certainly yeoman's work was done by the Joint Program Office. And I mean Joint Program Office in the largest sense of the word. The team here at Marine Corps Systems Command as well as the extended team at United States Army Tank-automotive and Armaments Command (TACOM) keeps collaboration and teamwork as a trusted method for achievement. Everyone recognizes and demonstrates a constant sense of urgency associated with delivery and readiness of these life-saving vehicles to the warfighters.

MARINE CORPS RAPID ACQUISITION - MINDSET

Marine Corps Systems Command fulfilled 316 number of urgent universal needs submitted by Marine units as well as additional number of joint urgent operational needs submitted by sister Services or joint warfighters. We did create some additional cells and program offices within the Command, but we did not need a new organization. The organizational structure that existed pre-9/11 is the organization that filled the bulk of these urgent requirements. We created a Counter Improvised Explosive Device (IED) cell and it was, in fact, that organization that bought the MRAP predecessors, the Joint Explosive Ordnance Disposal Rapid Response Vehicles (JERRV) and the Heavy Engineer Vehicles (HEV). When we received the mission to buy MRAPs, we stood up a Joint MRAP Program Office. This was not a new command; it was a program office within our existing Command. It was initially staffed from within Marine Corps Systems Command. We later ramped up and hired additional people and added contractor support. For MRAP, we also reached out to our Department of the Navy Systems Commands to get additional contracting officers detailed to the Program for periods ranging from 30 to 120 days. For logistics and sustainment, we teamed with Marine Corps Logistics Command in Albany, Georgia and the United States Army's Tank-automotive and Armaments Command in Warren, Michigan and received assistance from their very formidable Life Cycle Management Command personnel.

The MRAP family of vehicles has grown from an initial program requirement of 1,185 in November 2006 to over 22,000 vehicles today. As of 30 September, over 16,500 have been accepted by the government and over 14,000 fielded in theater. This could not have been done without the comprehensive, collaborative, communicative, and coordination efforts of every entity in the Enterprise.

TRANSFER FUND

The ability to provide any capability, rapid or deliberate, involves three main components: identify the capability need; assess the need and develop a solution; and provide adequate and timely resources to execute and field that solution. I wholeheartedly agree with the recommendation made by Chairman of the Defense Science Board Task Force, Dr. Jacques Gansler, to establish a fund for rapid acquisition and fielding. As stated in the report, "Congress established the Overseas Contingency Operations Transfer Fund to address stability and reconstruction costs incurred as a result of military operations. A similar approach is proposed to respond to urgent needs from any combatant command as a result of on-going action or an imminent threat."[1] The MRAP Transfer Fund proved to be a huge component of the Program's financial success. The flexibility it afforded allowed the Joint Program Office to transfer funds in the amounts and into the required funding appropriation accounts which provided flexibility to support constantly changing priorities and requirements. Since the exhaustion of the Iraqi Freedom Fund (IFF) the Department has had no appropriation dedicated to support unanticipated rapid acquisition efforts in the year of execution. A Joint IED Defeat Organization (JIEDDO)-like "purple" execution account would have provided a greater amount of flexibility and would have avoided a huge amount of administrative work. However, the MRAP Transfer Fund enabled our success.

BOTTOM LINE

The MRAP program was able to respond effectively using available processes and Department authority. But the

[1] Defense Science Board Task Force. "Fulfillment of Urgent Operational Needs, *Report of the Defense Science Board Task Force,* July 2009.

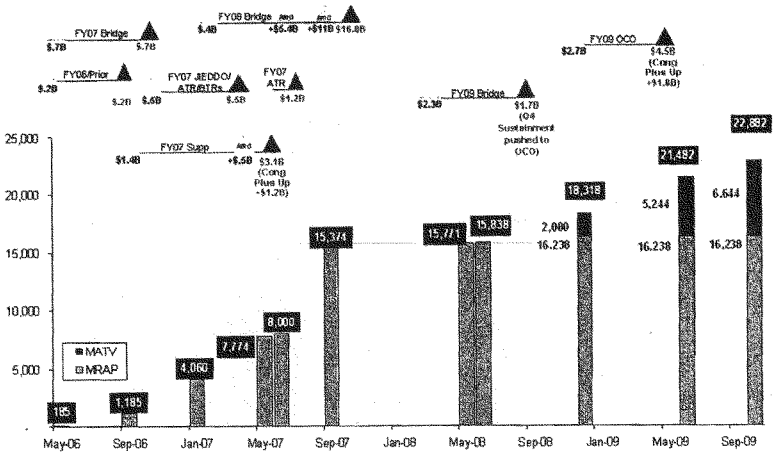
uniqueness of the requirement, exceptional high level support, attention and Congressional priority provided it advantages. We started with a mature (from a technology viewpoint) baseline vehicle and emphasized the use of proven solutions at the vehicle and component levels. The system requirement was set at the outset by the Joint Requirements Oversight Council and not permitted to change. We focused on getting a survivable vehicle to the field as quickly as possible.

CLOSING

We know the future will be challenging—not only in the immediate conflict in Iraq and Afghanistan, but in subsequent campaigns and Overseas Contingencies Operations. In this environment, the Marine Corps has been able to adapt to broad strategic conditions and wide-ranging threats. We have and will continue to rapidly acquire and field quality equipment for those in harm's way without new regulations or organizations. Current acquisition policy allows documents and processes to be tailored or omitted, as long as there's rationale to do so. Our current organization is agile, flexible, and responsive enough to provide what is required for warfighters. All that's needed is the mindset that the safety of the warfighters is our top priority and the willingness to accomplish the mission. We are confident that with your continued support, your Corps of Marines will remain the Nation's expeditionary force in readiness and continue to fulfill our national security imperative of *being the most ready when the Nation is least ready*.

Unclassified

Evolving Acquisition Objective & Budget Appropriation



Incremental increases in AO required real time communication and an interactive Funding Requirement/Budget Request/Appropriation process among Congress, OSD, and JPO personnel

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1

Unclassified

MRAP Funding Appropriation Overview

(RDT&E, Procurement and O&M through FY09)

As of 2 Oct 09

$M	Request	Appropriated	
FY06	$173	$173	Full request appropriated
FY07 Bridge	$652	$652	Full request appropriated
FY07 Full Supp	$1,355	$3,055	$1.2B more than request appropriated
FY07 Full Supp Amd- increase	$500		
FY08 Bridge Request	$441	$16,831	Full request appropriated
FY08 Bridge Request Amd 1- increase	$5,342		
FY08 Bridge Request Amd 2- increase	$11,048		
FY09 Bridge	$2,300	$1,700	$600M less than request appropriated (Q4 Sustainment pushed to OCO)
FY09 OCO	$2,700	$4,543	$1.8B more than request appropriated
Total Requested	**$24,511**	**$26,954**	
Plus FY07 DoD BTR/ATRs		$1,705	
Grand Total Appropriated to Date		**$28,659**	

Multiple Supplemental Budget Requests, Amendments, ATRs, BTRs, Congressional Adds and Cash Flowing were necessary for Program Financial Success

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2

HOLD UNTIL RELEASED
BY THE HOUSE COMMITTEE
ON ARMED SERVICES

STATEMENT OF

MR. THOMAS P. DEE

DIRECTOR, JOINT RAPID ACQUISITION CELL

OFFICE OF THE UNDER SECRETARY OF DEFENSE
(ACQUISITION, TECHNOLOGY AND LOGISTICS)

BEFORE THE
HOUSE ARMED SERVICES COMMITTEE
ACQUISITION REFORM PANEL

OCTOBER 8, 2009

HOLD UNTIL RELEASED
BY THE HOUSE COMMITTEE
ON ARMED SERVICES

Chairman Andrews, Representative Conaway, and Members of the Panel,

Thank you for the opportunity to appear before you today to discuss rapid acquisition.

Early challenges in Operation Iraqi Freedom demonstrated to the Department the importance of identifying emerging requirements that may not have been anticipated and the imperative of rapidly responding to such urgent warfighting needs. The JRAC was established in September 2004 by the Deputy Secretary of Defense in recognition of the challenges associated with timely solutions to the urgent operational needs of our war fighters. JRAC serves as the single point of contact and as the Combatant Commander's advocate on the OSD staff for facilitating and tracking the resolution of immediate warfighting needs submitted as a Joint Urgent Operational Need (JUON)[1].

JRAC, however, does not oversee all of the rapid acquisition processes within the Department. Appropriately, under their Title 10 responsibilities, the Service components have established processes to facilitate timely response to service identified needs[2]. While the Army alone has handled over 7,000 such operational needs statements, all Services have responded to urgent operational needs through their service specific rapid acquisition processes.

In cases where a Combatant Commander identifies the need as joint, the COCOM certifies the requirement as a joint need and forwards it to the Chairman, Joint Chiefs of Staff for validation as a Joint Urgent Operational Need. To date there have been 223 such needs validated by the Joint Staff. These JOUNS represent capabilities ranging from Mine Resistant, Ambush Protected (MRAP) vehicles, to Explosive Ordnance Disposal (EOD) robots, to Intelligence Surveillance and Reconnaissance (ISR) sensors and platforms. Of the 223 validated JUONs, all but 59 have been fully resolved. 45 of the remaining 59 have been mitigated through the

[1] Joint Urgent Operational Needs (JUON) – a COCOM-certified and prioritized urgent operational need, outside DoD 5000/Military processes, requiring a Doctrine, Operations, Training, Materiel, Leadership, Personnel and/or Facilities solution, that, if left unfulfilled, will seriously endanger personnel and/or pose a major threat to ongoing operations.

[2] U.S. Army, *Material Development*, Army Regulation 71-9, April 30, 1997; U.S. Navy, *Dept of the Navy Urgent Needs Process*, SECNAVNOTE 5000, March 12, 2009; USMC, *Marine Corps Expeditionary Force Development System*, MCO 3900.15B, March 10, 2008; USAF, *Rapid Response Process*, USAF instruction 63-114, June 12 2008; USSOCOM, *Special operations Forces Capabilities and Development System*, USSOCOM Directive 71-4 (draft) June 2009.

provision of some level of initial operating capability. Solutions for the 14 remaining JUONS are actively under development.

The Department has had many successes in providing new capabilities quickly. Through the establishment of various "task forces" or other bodies we have focused the Department's priorities on winning the current fight. The Mine Resistant, Ambush Protected (MRAP) Task Force focused the Department's resources on a new tactical vehicle program that was able to rapidly produce vehicles from different vendors and deploy thousands of vehicles in less than one year. As successful as this program has been in Iraq, we realized that the primitive road networks in Afghanistan made our current configuration of MRAPs unsuitable for much of Afghanistan's terrain. The Secretary's MRAP Task Force and the MRAP Joint Program Office took on the challenge by taking two actions. The first was to re-direct several hundred of the smaller, more maneuverable MRAP variants to Afghanistan and pursue suspension upgrades of those vehicles to make them more useful in the challenging terrain. The second part of the plan was to develop a new configuration specifically for Afghanistan. In response to a Joint Urgent Operational Need request in November 2008, a contract was awarded on June 30, 2009 for production of up to 10,000 MRAP – All Terrain Vehicles (M-ATVs). The current requirement is for 6,644 M-ATVs. By the end of this September, over 5,000 will be on contract, over 200 vehicles will be produced and the first fully integrated vehicles will be enroute to Afghanistan. The Commander of Marine Corps Systems Command, Brigadier General Mike Brogan, will address the MRAP more fully. With similar success, the Joint IED Defeat Organization (JIEDDO) rapidly develops and fields capabilities to defeat the most ubiquitous enemy weapon on the battlefield, the improvised explosive device. The ISR Task Force focuses attention and resources on the sensors and platforms needed to ensure full situational awareness on the battlefield. Many other organizations, including JRAC, were stood up by OSD and the Services to ensure responsiveness to the Commander's current needs.

Although the topic of today's panel is rapid acquisition, one cannot look at the acquisition process in isolation. The ability to provide any capability, rapid or deliberate, involves four main components: identifying your capability needs; assessing those needs and developing a

solution; providing adequate and timely resources to allow you to execute and field that solution; and establishing an enduring logistics capability to keep the capability in the inventory. Interestingly, all of our successes at rapidly fielding capability (including JIEDDO[3]) have used documented acquisition processes, guided by the 5000 series and the DFAR, to execute their programs. What these rapid processes have done however, is to provide a means of quickly prioritizing and quantifying requirements and of ensuring that the resources are available to enable rapid fielding of capabilities inside of the Department's Planning Programming, Budgeting and Execution System (PPBES) cycle.

A July 2009 congressionally-directed study by the Defense Science Board Task Force on Fulfillment of Urgent Operational Needs concluded that existing institutions and procedures are incapable of meeting the Department's need for rapid and agile acquisition in time of war. Consequently, the study recommended two separate acquisition structures: one for "deliberate" acquisitions, and one for "rapid" acquisitions. While the Department continues to review the recommendations of that study, the risk of accepting two distinct structures is a failure to accept that all acquisitions, wartime and peacetime, need to become more agile and responsive in order to keep pace with accelerating development cycles enabled through global access to information and incorporation of commercial technology, especially information and communications systems, in any potential adversary's arsenal. To prepare the Department for the agile threats we must surely anticipate in the future, we need to make our "deliberate" processes much more relevant to the current fight and capable of responding to urgent needs.

The foundation upon which we accelerate the application of new technologies to the current fight is a robust research and development structure. Under the leadership of the Under Secretary of Defense (Acquisition, Technology and Logistics) Dr. Ash Carter, and his Director of Defense Research and Engineering, Mr. Zach Lemnios, we have restructured the Directorate of Defense Research and Engineering to emphasize the rapid fielding of new technologies, while continuing the invaluable work of discovering and expanding the science for future capabilities.

[3] For the majority of its projects, JIEDDO does not execute its own acquisition efforts. It provides funds and sponsors projects that are generally executed by existing service program managers or labs, to include the non-traditional Army Rapid Equipping Force (REF).

It's not enough to simply respond to new threats. We need to anticipate those threats before they become disruptive to our strategy and tactics. To that end, we have focused our research arm on anticipating emerging threats in Afghanistan and charged them with ensuring the technology needed to counter these threats is mature before the threat materializes in a disruptive way.

Within the Director of Defense Research and Engineering organization, we consolidated hitherto disparate functions and created a new Rapid Fielding Office charged with discovering the best and most relevant technologies from the commercial and public sector and, when appropriate, facilitating their rapid fielding to theater. This new office is working to better integrate the science and technology with demonstration and prototype efforts throughout the Department and to focus those efforts on supporting the current fight. Among the Rapid Fielding office's current efforts is a demonstration of alternative persistent ground surveillance systems that are both less expensive and more rapidly fieldable than those that are currently deployed. We are continuing to expedite and facilitate a new tactical communication capability to provide reliable communications to remote users in the rugged terrain of Afghanistan. The Distributed Tactical Communication System leverages an existing commercial satellite-based system modified for netted operation and uses a handset developed by the Department. It is a solution for on-the-move, over the horizon expeditionary tactical communications in the mountains of Afghanistan. The success of the operational demonstration of this capability in Afghanistan has resulted in a request to rapidly field handsets to an additional 4,000+ users.

The Rapid Fielding Office has also taken over responsibility for the Department's Joint Rapid Acquisition Cell (JRAC), to ensure better synergy between the requirements, acquisition and research communities. Since this transition, the JRAC has reviewed all of the outstanding needs that have been identified by the Combatant Commander and worked with the Joint Staff, the Military Services, JIEDDO and the COCOM to prioritize the needs and ensure the adequate application of resources. This review led to a $624M reprogramming request for urgently needed force protection capabilities that was subsequently approved by the House and Senate committees and is being transferred to the Army for execution.

While the Department has had many successes in rapidly delivering capabilities to the field, there are still challenges to overcome. As I indicated earlier, the most difficult challenge in "rapid acquisition" is not acquisition, but rather prioritizing your needs and quickly identifying the resources needed to execute a solution. Congress cannot help us with prioritizing our warfighting needs, but Congress can help to facilitate funding those needs more rapidly. Identification of the resources to enable execution is the responsibility of the executing component but, except for JIEDDO, identifying new funding in the year of execution is challenging. Since the exhaustion of the Iraqi Freedom Fund (IFF)[4] the Department has had no appropriation, except for counter-IED, dedicated to support unanticipated rapid acquisition efforts in the year of execution. The FY10 budget submission included $79.3M base budget request for a Rapid Acquisition Fund (RAF). Going into conference for the FY10 defense appropriation, the HAC approved $40M of the request in the Rapid Acquisition Fund, but moved it from the base budget to funding for Overseas Contingency Operations (OCO). The SAC approved $79.3M in RDT&E Air Force for the Battlefield Airborne Communications Node (BACN), instead of in the RAF. Currently, there are no funds in the FY10 base budget under consideration for a rapid acquisition fund.

Congress has provided some relief and flexibility to the Department in the form of Rapid Acquisition Authority[5], initially provided for in the National Defense Authorization Act for Fiscal Year 2003. Through this authority, the Secretary of Defense can waive laws, policies, directives and regulations dealing with testing and procurement, short of criminal statute, to acquire critical equipment identified by a delegated Rapid Acquisition Authority. There are some limits to this authority, however. It can only be executed to procure equipment, not services. It is limited to $100M per fiscal year. Furthermore, Rapid Acquisition Authority can be invoked only after a death has occurred, an ill- advised limitation when the objective is to

[4] From FY 2005 through FY 2008 (between May 2005 and Aug 2008), $442.5M was made available from FY2005, FY2006, and FY2007 Iraqi Freedom Fund appropriations to support Joint Urgent Operational Needs (JUONs).
[5]Rapid Acquisition Authority – Established in the Bob Stump National Defense Act for Fiscal Year 2003, as amended by the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005. Promulgated by SecDef Memo dated 25 January 2005 titled: Fiscal Year 2005 Rapid Acquisition Authority.

anticipate urgent needs in order to avoid casualties and ensure mission success. For those reasons, Rapid Acquisition Authority has only been invoked four times since its authorization.

Thank you again for the opportunity to speak with you today. I believe the Department has embraced the lessons learned early in Operation Iraqi Freedom and is on the path to more responsive and agile acquisition focused on winning the current fight. I look forward to your questions.

THE RAPID ACQUISITION PROCESS: IS IT A MODEL FOR IMPROVING ACQUISTION

Dov S. Zakheim

Statement before the Defense Acquisition Reform Panel
House Committee on Armed Services

October 8, 2009

MR. CHAIRMAN, MEMBERS OF THE DEFENSE ACQUISITION REFORM PANEL, IT IS A PRIVILEGE TO APPEAR BEFORE YOU TO DISCUSS THE FINDINGS OF THE DEFENSE SCIENCE BOARD TASK FORCE ON THE FULFILLMENT OF OPERATIONAL NEEDS. THIS TASK FORCE WAS ABLY CHAIRED BY DR. JACQUES GANSLER, FORMER UNDER SECRETARYOF DEFENSE FOR ACQUISITION, TECHNOLOGY AND LOGISTICS, WHO IS, AS YOU ALL KNOW, A RECOGNIZED EXPERT IN THE FIELD. BECAUSE THE REPORT HAS BEEN AVAILABLE TO YOU FOR SOME TIME, I WILL PROVIDE A RELATIVELY BRIEF OVERVIEW OF ITS OBSERVATIONS AND FINDINGS, AND THEN WILL BE HAPPY TO TAKE YOUR QUESTIONS.

THE FUNDAMENTAL ISSUE FACING THE DEPARTMENT OF DEFENSE AFTER MORE THAN EIGHT YEARS OF WAR IS THAT IT STILL DOES NOT HAVE A COHERENT SYSTEM FOR ADDRESSING THE URGENT NEEDS OF OPERATIONAL COMMANDERS IN THE FIELD.

UNANTICIPATED DEVELOPMENTS ON THE BATTLEFIELD CALL FOR RAPID RESPONSES BY U.S. FORCES: THE APPEARANCE OF IMPROVISED EXPLOSIVE DEVICES IN IRAQ BEING THE MOST PROMINENT OF SUCH RECENT DFEVELOPMENTS. YET OUR SYSTEM SIMPLY IS NOT AGILE ENOUGH TO ENABLE COMMANDERS TO RESPOND QUICKLY, AND IN THEMOST EFFECTIVE WAY POSSIBLE, TO THE DEMANDS FOR COUNTERING SUCH SYSTEMS.

OVER THE COURSE OF THE WARS IN AFGHANISTAN AND IRAQ COMMANDERS HAVE SUBMITTED OVER 7,000 NEED STATEMENTS FOR URGENT SOLUTIONS THROUGH COMMAND CHANNELS TO THE JOINT STAFF AND THE SERVICES. IN RESPONSE, THE SERVICES AND THE DEFENSE ACQUISITION COMMUNITY CREATED OVER TWENTY DIFFERENT ORGANIZATIONS TO ADDRESS URGENT NEEDS; EVERY ONE OF THESE UNITS WAS *AD HOC*, WITH NO PLAN FOR, OR PROSPECT OF, PERMANENCE. IN 2004 THE DEPARTMENT CREATED A

JOINT RAPID ACQUISITION CELL (JRAC) ALONG WITH A PROCESS FOR TRACKING THE FATE OF JOINT URGENT OPERATIONAL NEEDS. NEVETHELESS, THIS PROCESS, WHILE EXCEEDINGLY USEFUL, DID NOT GET TO THE HEART OF THE CHALLENGE POSED BY URGENT OPERATIONAL REQUIREMENTS.

PUT SIMPLY, THE DEPARTMENT NEEDS TO FIELD MILITARILY USEFUL SOLUTIONS MORE QUICKLY. THE CURRENT THREAT ENVIRONMENT IS ONE IN WHICH THE ENEMY ON THE BATTLEFIELD EMPLOYS EASILY OBTAINABLE, OFF-THE-SHELF TECHNOLOGY TO UNDERMINE THE EFFECTIVENESS OF U.S. MILITARY OPERATIONS. YET DOD HAS MADE NO PERMANENT INSTITUTIONAL CHANGES IN ITS ACQUISITION, PROGRAMMATIC AND BUDGETARY SYSTEMS TO ACCOUNT FOR THE GROWING SOPHISTICATION AND FLEXIBILITY OF THE THREAT.

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MOREOVER, THE CURRENT SYSTEM DOES NOT SYSTEMATICALLY PROVIDE FOR THE NECESSARY TRIAGE TO DETERMINE WHETHER A REQUEST FROM THE FIELD FOR A GIVEN ITEM MAY BE MORE OF A LOGISTICS ACTIVITY THAN ONE REQUIRING THE RESOURCES OF THE ACQUISITION COMMUNITY. IN ADDITION, THE DEPARTMENT OFTEN DOES NOT EMPLOY OPERATIONS RESEARCH AND SYSTEMS ANALYSIS (ORSA) WHEN DETERMINING THE BEST REPSONSE TO AN URGENT NEED THAT IS COUCHED IN TERMS OF MISSION OR CAPABILITY REQUIREMENTS RATHER THAN AS A REQUEST FOR A SPECIFIC SOLUTION.

TASK FORCE FINDINGS

ALL OF DOD'S NEEDS CANNOT BE MET BY THE SAME ACQUISITION PROCESSES.

DOD NEEDS TO CODIFY AND INSTITUTIONALIZE A SEPARATE SET OF RAPID ACQUISITION PROCESSES AND PRACTICES THAT CAN BE TAILORED TO EXPEDITE THE RAPID DELIVERY OF CAPABILITIES THAT MEET URGENT WARFIGHTER NEEDS. THIS RAPID ACQUISTION SYSTEM WOULD RUN PARALLEL TO THE CURRENT STANDARD PROCESSES THAT HAVE BEEN IN PLACE FOR DECADES.

BECAUSE THE NOTION OF "RAPID" IS COUNTERCULTURAL, IT WILL BE UNDERSUPPORTED IN TRADITIONAL ORGANIZATIONS.

THE DEFENSE ACQUISITION WORKFORCE HAS FOR MANY YEARS FUNCTIONED IN AN ENVIRONMENT THAT REWARDS FOLLOWING COMPLEX PROCEDURES WITH ACCURACY AND PRECISION, BUT PENALIZES THOSE WHO TAKE SHORTCUTS AROUND THOSE PROCEDURES. YET IT IS PRECISELY CREATIVITY AND "WORKAROUNDS" THAT ARE CRITICAL TO MEETING URGENT

REQUIREMENTS SUCCESSFULLY AND IN A TIMELY FASHION.

SUSTAINING AN EFFECTIVE RAPID ACQUISITION CAPABILITY

THEREFORE WILL CALL FOR THE ACTIVE SUPPORT OF THE TESTING,

RESOURCING AND REQUIREMENTS COMMUNITIES IN AN

UNPRECEDENTED MANNER.

ANY RAPID RESPONSE MUST BE BASED ON PROVEN TECHNOLIGY AND ROBUST MANUFACTURING PROCESSES.

A RAPID ACQUISITION SYSTEM IS NO PLACE FOR ACCELERATING

NEW TECHNOLOGY DEVELOPMENT. WITH SOME RARE EXCEPTIONS,

EFFORTS TO TELESCOPE THE TECHNOLOGY DEVELOPMENT PROCESS

WILL RISK DELAYS AND THEREBY UNDERMINE THE ENTIRE

RATIONALE FOR A RAPID RESPONSE SYSTEM.

CURRENT APPROACHES TO IMPLEMENT RAPID RESPONSES TO URGENT NEEDS ARE NOT SUSTAINABLE.

ALTHOUGH DOD HAS FORMALIZED A NUMBER OF ITS *AD HOC* PROCESSES, THEY DO NOT ENCOMPASS THE BREADTH OR DEPTH NEEDED TO ENSURE A RAPID RESPONSE TO FUTURE BATTLEFIELD CHALLENGES. MOREOVER, AND CRUCIALLY, THEY ARE NOT BEING INCORPORATED INTO THE SERVICE BUDGETING PROCESSES. AS A RESULT, THEY WILL INEVITABLY GET SHORT SHRIFT WHEN TRADED OFF AGAINST LONG-STANDING SERVICE "PROGRAMS OF RECORD."

THE DEPARTMENT OF DEFENSE NEEDS AN INTEGRATED TRIAGE PROCESS.

A COMBATANT COMMAND MAY IDENTIFY AN URGENT NEED FOR A VARIETY OF REASONS. TO MEET THAT NEED MOST EFFECTIVELY, NO SOLUTION SHOULD BE POSITED WITHOUT A PRIOR, AND HIGHER LEVEL, REVIEW OF ALL NEEDS AND A WIDER VIEW OF POTENTIAL SOLUTIONS. GIVEN LIMITED RESOURCES, AND THE VARIETIES OF

NEEDS, TRIAGE IS A CRITICAL STEP IN THE RAPID ACQUISITION PROCESS.

INSTITUTIONAL BARRIERS, BE THEY PERSONNEL, BUDGETS OR PROCESSES, ARE POWERFUL INHIBITORS TO SUCCESSFUL RAPID ACQUISITION AND FIELDING OF NEW CAPABILITIES.

THESE BARRIERS MUST ALL BE ADDRESSED WITH EXPLICIT SOLUTIONS. ATTRIBUTES OF A SOLUTION WOULD INCLUDE

- *AN INSTITUTIONALIZED ABILITY TO DELIVER JOINT CAPABILITIES RAPIDLY AND EFFICIENTLY* AND TO EXTEND TO SENIOR LEADERSHIP PRIORITY AND UNWAVERING SUPPORT.
- *AWARENESS OF THE GLOBAL MARKETPLACE*, WITH SOLUTIONS WELCOME FROM ANYWHERE, INCLUDING COMMERCIAL AND FOREIGN SOURCES.

- *INCREASED USE OF ALL AVAILABLE CONTRACTING AUTHORITIES,* AND THE POSSIBLE ADDITION OF SOME, TO ENABLE SPEED AND ACCESS TO NON-TRADITIONAL SUPPLIERS.
- *A RADICALLY DIFFERENT WORKFORCE CULTURE,* ONE THAT IS ANTICIPATORY, AGILE, SCHEDULE-DRIVEN AND CAPABILITY-ORIENTED. PERSONNEL SHOULD BE THE 'BEST AND BRIGHTEST' AND WITHOUT A BUREAUCRATIC MINDSET, SUPPORTING A LEAN PROCESS.
- *EVALUATION AND INCORPORATION OF 'GOOD PRACTICES' CURRENTLY EXTANT IN VARIOUS ORGANIZATIONS.*

TASK FORCE RECOMMENDATIONS

RECOMMENDATION 1. THE SECRETARY OF DEFENSE SHOULD FORMALIZE A DUAL ACQUISITION PATH.

'DELIBERATE' AND 'RAPID' ACQUISITION ARE INCOMPATIBLE PROCESSES WITH DIFFERENT ACQUISITION GOALS. THEREFORE,

THEY SHOULD BE HANDLED IN SEPARATE ORGANIZATIONAL ELEMENTS AND WITH SEPARATE BUDGET GUIDANCE. IN CONTRAST TO THE 99 PER CENT. SOLUTION THAT MARKS DELIBERATE ACQUISITION, RAPID ACQUISITION SHOULD SEEK A 75 PER CENT. SOLUTION, WITH THE MAJOR FOCUS ON DELIVERY WITHIN 24MONTHS. NEVERTHELESS, THE PROPOSED PROCESS WOULD BE CONSISTENT WITH THE DOD 5000 SERIES, BUT IT WOULD BE CARRIED OUT IN AN INTEGRATED AND COMPRESSED MANNER.

FOR RAPID ACQUISITION, EXECUTION SHOULD BE DECENTRALIZED. THE DEPARTMENT SHOULD SEEK PARTICIPATION BY SMALL AND NON-TRADITIONAL BUSINESSES. IT CAN MITIGATE RISK BY USING PROVEN TECHNOLOGY THAT IS TRANSITIONED RAPIDLY VIA COMPETITIVE PROTOTYPING. IT SHOULD INTEGRATE RESOURCES FOR TRAINING AND SUSTAINMENT AND DELIVER THEM IN PARELLEL WITH INITIAL OPERATING CAPABILITY.

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THE DEPARTMENT SHOULD ESTABLISH A STANDARD DEFINITION FOR THE RAPID ACQUISITION PATH THAT WILL GUIDE A NEW TRIAGE PROCESS. THIS DEFINITION SHOULD STATE THAT AN UGENT NEED IS ONE *THAT IF LEFT UNFULFILLED, WILL SERIOUSLY ENDANGER PERSONNEL AND/OR POSE A MAJOR THREAT TO ONGOING OR IMMINENT OPERATIONS.* THE TRIAGE PROCESS SHOULD DETERMINE QUICKLY WHETHERE THE NEED IN QUESTION CAN BE ADDRESSED THROUGH A LOGISTICS PROCESS.

RECOMMENDATION 2. EXECUTIVE AND LEGISLATIVE BRANCHES MUST ESTABLISH A FUND FOR RAPID ACQUISITION AND FIELDING.

GIVEN UNCERTAINTY ABOUT FUTURE URGENT NEEDS, THE TASK FORCE RECOMMENDS CREATION OF A FUND THAT AMOUNTS TO 0.5% OF THE DOD BUDGET. THIS INVESTMENT MECHANISM IS SIMILAR TO THE APPROPRIATION FOR SMALL BUSINESS INNOVATIVE RESEARCH

(SBIR); IT WOULD BE REPLENISHED ANNUALLY WITH A PROPOSED CAP OF APPROXIMATELY $3 BILLION PLUS INFLATION. (AS A POINT OF REFERENCE, $10 BILLION HAS BEEN ALLOCATED ANNUALLY TO RESPOND TO THE I.E.D. THREAT.) TO BE FULLY RESPONSIVE TO THE TYPES OF URGENT NEEDS ARTICULATED IN THE RECENT PAST, AND THOSE ANTICIPATED IN THE FUTURE, FUNDING SHOULD NOT EXPIRE, NOR SHOULD FUNDS BE LIMITED TO CERTAIN SPENDING CLASSIFICATIONS, FOR EXAMPLE, FOR MATERIEL, MODELING OR TACTICS. MOST IMPORTANT, THIS FUND WOULD NOT BE CONTINGENT ON AN ONGOING WAR.

TO BE EFFECTIVE IN A RAPIDLY CHANGING ENVIRONMENT, THE FUND SHOULD BE HIGHLY TRANSPARENT. CONGRESS SHOULD RECEIVE QUARTERLY REPORTS, WITH ADDITIONAL NOTIFICATION AS NEEDED. IN ADDITIOON, AN OVERSIGHT GROUP WOULD HOLD PERIODIC MEETINGS TO AID IN PRIORITIZATION. THE GROUP SHOULD

BE CO-CHAIRED BY THE UNDER SECRETARY OF DEFENSE FOR ACQUISITION, TECHNOLOGY AND LOGISTICS(USD (AT&L), AND THE VICE CHAIRMAN OF THE JOINT CHIEFS OF STAFF (VCJCS). REPRESENTATIVES FROM THE COMBATANT COMMANDS WOULD SERVE AS MEMBERS, AND CONGRESSIONAL APPROPIRATORS MIGHT BE INCLUDED AS PERMANENT OBSERVERS.

RECOMMENDATION 3. THE SECRETARY OF DEFENSE SHOULD ESTABLISH A NEW *RAPID ACQUISITION AND FIELDING AGENCY* (RAFA).

THE ORGANIZATIONAL HOME FOR A RAPID ACQUISITION AND FIELDING AGENCY SHOULD BE WITHIN THE OFFICE OF USD (AT&L). THE AGENCY WOULD BE FOCUSED ON SPEED, UTILIZING TECHNOLOGIES AND ACQUISITION FLEXIBILITIES TO OBTAIN A 75 PER CENT. SOLUTION, WHICH WOULD BE SUFFICIENT INITIALLY TO ADDRESS URGENT WARFIGHTER NEEDS.

RAFA WOULD BE A JOINT AGENCY, ORGANIZATIONALLY SIMILAR TO THE DEFENSE LOGISTICS AGENCY OR THE NATIONAL SECURITY AGENCY. IT WOULD BE LED BY A 3-STAR LEVEL OFFICER REPORTING DIRECTLY TO USD (AT&L) FOR HIGH LEVEL SUPPORT AND VISIBILITY, AND, VIA A DOTTED LINE ARRANGMENT, TO THE VCJCS.

RAFA WOULD NOT OVERLAP WITH DARPA'S FUNCTION OF DEVELOPING AND DEMONSTRATING DISRUPTIVE TECHNOLOGIES WITHIN THREE TO FIVE YEARS. NOR WOULD IT OVERLAP WITH THE DIRECTOR OF DEFENSE RESEARCH AND ENGINEERING'S FOCUS ON NEXT GENERATION SYSTEMS AND TECHNOLOGIES.

RAFA'S MISSION WOULD BE TO ADDRESS COMBATANT COMMAND NEEDS RAPIDLY WITH PROVEN AND EMERGENT TECHNOLOGIES

WITHIN TWO TO 24 MONTHS. TO DO SO RAFA WOULD, AMONG OTHER THINGS:

- UTILIZE BOTH SERVICE ACQUISITION OFFICES AS WELL AS INTERNAL CONTRACTING AND FINANCE SURGE CAPABILITIES
- FORMULATE SPIRAL DEVELOPMENT AND MODULAR OPEN SYSTEMS ARCHITECTURE TO FIELD NEW CAPABILITIES WITHIN A TWO TO 24 MONTH TIMEFRAME
- REACH OUT TO COMMERCIAL AND FOREIGN SOURCES VIA AN 'OPEN BUSINESS CELL' AND MAXIMIZE USE OF FLEXIBLE PROCUREMENT OPTIONS SUCH AS "OTHER TRANSACTIONS AUTHORITY" AND CONGRESSIONAL WAIVERS
- TRACK FIELDING TO INCLUDE TRAINING, SUSTAINMENT AND SUPPORT IN COORDINATION WITH THE SERVICES AND COMBATANT COMMANDS
- CAPTURE LESSONS LEARNED, AND

- PROVIDE INTEGRATED TRIAGE FOR INCOMING NEEDS FROM COMBATANT COMMANDS.

RAFA'S WORKFORCE SHOULD BE SMALL ENOUGH TO BE EFFECTIVE BUT LARGE ENOUGH TO CARRY OUT ITS TASKS. THE RAFA DIRECTOR WILL REQUIRE FLEXIBLE HIRING AUTHORITY AND THE ABILITY TO HAND-PICK KEY EMPLOYEES. THE DEPARTMENT SHOULD OFFER INCENTIVES FOR THE BEST AND BRIGHTEST MILITARY PERSONNEL TO SERVE IN RAFA, INCLUDING 'NOMINATIVE ASSIGNMENTS' TARGETING SERVICE PERSONNEL WITH HIGH PROMOTION PROSPECTS, IDENTIFYING POSITIONS AS 'KEY DEVELOPMENT' BILLETS, AND GIVING JOINT CREDIT FOR DUTY IN RAFA.

SIMILARLY, DOD SHOULD ENSURE THAT RAFA GETS THE BEST CIVILIANS AS WELL, PROVIDING INCENTIVES ANALAGOUS TO THOSE OFFERED TO THE MILITARY. IN ADDITION, RAFA SHOULD TARGET 10

PER CENT. OF ITS WORKFORCE FROM OUTSIDE DOD, UTILIZING PROGRAMS SUCH AS HIGHLY QUALIFIED EXPERTS UNDER SECTION 9903 OF TITLE 5 U.S.C.; PRESIDENTIAL MANAGEMENT FELLOWS; INTERGOVERNMENTAL PERSONNEL ACT (IPA) ASSIGNMEN; AND SPECIAL AUTHORITY TO RECRUIT EMINENT SCIENTISTS UNDER SECTION 1101 OF THE FY 1999 NDAA.

IDEALLY, EACH SERVICE WOULD ALSO ESTABLISH ITS OWN 'RAPID ACQUISITION' ORGANIZATION THAT WOULD WORK CLOSELY WITH RAFA.

RECOMMENDATION 4. INITIAL FUNDING AND BILLETS FOR RAFA WILL BE BASED ON ABSORBING AND INTEGRATING EXISTING PROGRAMS AND ORGANIZATIONS.

INITIAL BILLETS AND BUDGETS FOR RAFA SHOULD BE DRAWN FROM CURRENT AD HOC EFFORTS WITHIN OSD. THIS APPROACH WILL EASE THE TRANSITION TO THE NEW ORGANIZATION. SOME

ORGANIZATIONS SHOULD BECOME PROGRAMS OF RECORD, HOWEVER, AND THEY SHOULD TRANSITION TO THE SERVICES. THESE ORGANIZATIONS WOULD STILL BE JOINT, AS FOR EXMAPLE, IS THE JOINT STRIKE FIGHTER (JSF) OFFICE.

THERE ARE SEVERAL ORGANIZATIONS AND PROGRAMS THAT WHEN INCORPORATED INTO RAFA WOULD BRING WITH THEM SOME $500 MILLION INITIAL CAPITAL FOR RAFA. THESE INCLUDE THE JOINT CAPABILITY TECHNOLOGY DEMONSTRATOR (JCTD) PROGRAM, THE COALITION WARRIOR INTEROPERABILITY PROGRAM, THE JOINT RAPID ACQUISITION CELL AND THE OFFICE OF FORCE TRANSFORMATION.

RECOMMENDATION 5. DOD SHOULD ESTABLISH A STREAMLINED, INTEGRATED APPROACH FOR RAPID ACQUISTITON.

RAFA SHOULD FOLLOW A RIGOROUS 'ESSENTIALS ONLY' TIMELINE TO MEET COMBATANT COMMANDERS' NEEDS IN A PERIOD OF TWO TO 24 MONTHS. IT SHOULD COORDINATE NEEDS, ACQUISITION AND FUNDING STEPS TIGHTLY. IT SHOULD PROVIDE CONTINUOUS OVERSIGHT OF ALL STEPS IN THE URGENT NEEDS PROCESS AND PROVIDE A LIAISON TO THE COMBATANT COMMANDER WHO INITIATED THE URGENT NEED STATEMENT. THE RAFA DIRECTOR WOULD HAVE ACQUISITION AND FUNDING RESPONSIBILITY AND, TOGETHER WITH THE COMBATANT COMMANDER, WOULD APPROVE THE NEED, CONCEPTS OF OPERATIONS, AND PROPOSED IOC.

TO EXECUTE THE PROGRAM, RAFA AND EACH SERVICE WOULD JOINTLY MANAGE PRODUCTION. RAFA WOULD WORK WITH THE SERVICE TO INTEGRATE DOCTRINE, ORGANIZATION, TRAINING, MATERIEL, LEADERSHIP AND EDUCATION, PERSONNEL AND FACILITIES (DOTMLPF) AS WELL AS LIFE CYCLE ISSUES.

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CONCLUSION

IT IS IMPERATIVE THAT THE SECRETARY OF DEFENSE, THE JOINT CHIEFS OF STAFF AND THE SERVICE LEADERS BEGIN TO IMPLEMENT ALL FIVE OF THESE RECOMMENDATIONS. IN THAT REGARD, IT IS GRATIFYING THAT UNDER SECRETARY (AT&L) ASHTON CARTER HAS ARTICULATED CONCERNS SIMILAR TO THOSE OF THE TASK FORCE, AS HE RECENTLY DID AT A MEETING OF THE COUNCIL ON FOREIGN RELATIONS.

EXISTING URGENT NEEDS REMAIN TO BE FULFILLED WITH INCREASINGLY LIMITED RESOURCES AVAILABLE TO FUND THEM.THE POTENTIAL FOR NEW AND MORE DEVASTATING CAPABILTIES FROM ADVERSARIES CONTINUES TO LOOM LARGE. THE MEN AND WOMEN OF THE ARMED FORCES WHO STAND IN HARM'S WAY DESERVE NOTHING LESS THAN THE SUPPORT OF A NEW,

STREAMLINED SYSTEM TO MEET THEIR URGENT BATTLEFIELD NEEDS.

THANK YOU.

United States Government Accountability Office

GAO

Testimony

Before the House Armed Services Committee, Defense Acquisition Reform Panel

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DEFENSE ACQUISITIONS

Rapid Acquisition of MRAP Vehicles

Statement of Michael J. Sullivan, Director
Acquisition and Sourcing Management

GAO
Accountability * Integrity * Reliability

GAO-10-155T

October 8, 2009

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Highlights

Highlights of GAO-10-155T, a testimony before the House Armed Services Committee, Defense Acquisition Reform Panel

DEFENSE ACQUISITIONS

Rapid Acquisition of MRAP Vehicles

Why GAO Did This Study

As of July 2008, about 75 percent of casualties in combat operations in Iraq and Afghanistan were attributed to improvised explosive devices. To mitigate the threat from these weapons, the Department of Defense (DOD) initiated the Mine Resistant Ambush Protected (MRAP) program in February 2007, which used a tailored acquisition approach to rapidly acquire and field the vehicles. In May 2007, the Secretary of Defense affirmed MRAP as DOD's most important acquisition program. To date, about $22.7 billion has been appropriated for the procurement of more than 16,000 MRAP vehicles.

My testimony today describes the MRAP acquisition process, the results to date, lessons learned from that acquisition, and potential implications for improving the standard acquisition process. It is mostly based on the work we have conducted over the past few years on the MRAP program. Most prominently, in 2008, we reported on the processes followed by DOD for the acquisition of MRAP vehicles and identified challenges remaining in the program. To describe DOD's approach for and progress in implementing its strategy for rapidly acquiring and fielding MRAP vehicles, we reviewed DOD's plans to buy, test, and field the vehicles and discussed the plans with cognizant department and contractor officials. To identify the remaining challenges for the program, we reviewed the results of testing and DOD's plans to upgrade and sustain the vehicles.

View GAO-10-155T or key components. For more information, contact Michael J. Sullivan at (202) 512-4841 or sullivanm@gao.gov.

What GAO Found

DOD use of a tailored acquisition approach to rapidly acquire and field MRAP vehicles was successful. The program relied only on proven technologies and commercially available products; established minimal operational requirements; and undertook a concurrent approach to producing, testing, and fielding the vehicles. To expand limited production capacity, indefinite delivery, indefinite quantity contracts were awarded to nine commercial sources, with DOD agreeing to buy at least 4 vehicles from each. Subsequent orders were based on a concurrent testing approach with progressively more advanced vehicle test results and other assessments. To expedite fielding of the vehicles, the government retained the responsibility for final integration in them of mission equipment packages including radios and other equipment. DOD also made MRAP its highest priority acquisition, which helped contractors and others more rapidly respond to the need and meet production requirements, in part by early investing of their own capital to purchase steel and other critical components in advance of orders.

Schedule and performance results for MRAP were very good overall. In July 2008, nearly all testing was completed; the Marine Corps had placed orders for 14,173 MRAPs; and, as of May 2008, 9,121 vehicles had been delivered. As of July 2009, 16,204 vehicles have been produced and 13,848 vehicles fielded in two theaters of operation. Total MRAP production funding was about $22.7 billion, mostly through supplemental appropriations.

In terms of lessons learned, MRAP's success was driven by several factors, including quick action to declare its acquisition DOD's highest priority and giving it a DX rating, which allowed access to more critical materials than was otherwise available. The availability of supplemental appropriations was also essential. However, while neither of these factors are practically transferable to other programs, decisions to 1) use only proven technologies, 2) keep requirements to a minimum, 3) infuse significant competition into contracting, and 4) keep final integration responsibility with the government all led to positive outcomes and may be transferable. Challenges to MRAP remain in its reliability, mobility, and safety, which required some modifying of designs and postproduction fixes, and adapting how vehicles were used. Also, long term sustainment costs are not understood and the services are only now deciding how MRAP fits them in the longer term.

GAO's multiple best practices reports have underscored the need for the use of mature technologies, well understood requirements, systems engineering knowledge, and incremental delivery of capabilities to enable quicker deliveries. Finally, a broader lesson learned is that it is time to invest the time, money, and management skills in the science and technology community to enable the effectiveness we expect from the acquisition community.

Mr. Chairman and Members of the Panel:

I am pleased to be here today to discuss rapid acquisition programs within the Department of Defense (DOD), with a focus on our work on the Mine Resistant Ambush Protected (MRAP) vehicles as a case study example. As of July 2008, about 75 percent of casualties in combat operations in Iraq and Afghanistan were attributed to improvised explosive devices. To mitigate the threat from these weapons, the DOD initiated the MRAP program in February 2007, which used a tailored acquisition approach to rapidly acquire and field the vehicles. In May 2007, the Secretary of Defense affirmed MRAP as DOD's single most important acquisition program. To date, about $22.7 billion has been appropriated for the procurement of more than 16,000 MRAP vehicles.

My statement today describes the MRAP acquisition process, the results to date, lessons learned from that acquisition, and potential implications for improving the standard acquisition process. It is mostly based on the work we have conducted over the past few years on the MRAP program. Most prominently, in 2008, we reviewed and reported on the processes followed by DOD for the acquisition of MRAP vehicles and identified challenges remaining in the program. [1] In that report, to describe DOD's approach for and progress in implementing its strategy for rapidly acquiring and fielding MRAP vehicles, we reviewed DOD's plans to buy, test, and field the vehicles and discussed the plans with cognizant department and contractor officials. To identify the remaining challenges for the program, we reviewed the results of testing and DOD's plans to upgrade and sustain the vehicles. We conducted that performance audit from June 2007 to July 2008 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

In February 2005, Marine Corps combatant commanders identified an urgent operational need for armored tactical vehicles to increase crew protection and mobility of Marines operating in hazardous fire areas

[1] Rapid Acquisition of Mine Resistant Ambush Protected Vehicles. (GAO-08-884R; July 15, 2008).

against improvised explosive devices, rocket-propelled grenades, and small arms fire. In response, the Marine Corps identified the solution as the up-armored high-mobility multi-purpose wheeled vehicle. Over the next 18 months, however, combatant commanders continued to identify a requirement for more robust mine-protected vehicles. According to the acquisition plan, in November 2006, the Marine Corps awarded a sole source indefinite delivery, indefinite quantity (IDIQ) contract[2] and subsequently placed orders for the first 144 vehicles to respond to the urgent requirement while it conducted a competitive acquisition for the balance of the vehicles. In February 2007, the Assistant Secretary of the Navy for Research, Development, and Acquisition approved MRAPs entry into production as a rapid acquisition capability. In September of 2007, the Undersecretary of Defense for Acquisition, Technology, and Logistics designated MRAP as a major defense acquisition program[3] with the Marine Corps Systems Command as the Joint Program Executive Officer. Quantities to be fielded quickly grew from the initial 1,169 vehicles for the Marine Corps identified in the 2005 urgent need statement to the current approved requirement of over 16,000 vehicles split among the Army, Marine Corps, Navy, Air Force, and Special Operations Command, plus others for ballistic testing.

Three versions of the MRAP vehicle were acquired for different missions:

- Category I, the smallest version of MRAP, is primarily intended for operations in the urban combat environment, and can carry up to 7 personnel.
- Category II is a multi-mission platform capable of supporting security, convoy escort, troop or cargo transport, medical, explosive ordnance disposal, or combat engineer operations, and carries up to 11 personnel.

[2] An IDIQ contract is a type of indefinite delivery contract that provides for an indefinite quantity of supplies or services within stated limits, during a fixed period. The government places orders for individual requirements. Federal Acquisition Regulation (FAR) 16.504.

[3] Major defense acquisition programs are those estimated to require eventual total research, development, test and evaluation expenditures of more than $365 million or procurement expenditures of more than $2.19 billion in fiscal year 2000 constant dollars.

- Category III, the largest of the MRAP family, is primarily intended for the role of mine and IED clearance operations, and carries up to 13 personnel. [4]

MRAP vehicles were purchased without mission equipment—such as communications and situational awareness subsystems—that must be added before the vehicles can be fielded to the user. The military services buy the subsystems for their vehicles and provide them as government furnished equipment to be installed at a government integration facility located at the Space and Naval Warfare Systems Command in Charleston, South Carolina.

Acquisition Strategy Was Tailored and Had Special Priority

DOD used a tailored acquisition approach to rapidly acquire and field MRAP vehicles. The program established minimal operational requirements, decided to rely on only proven technologies, and relied heavily on commercially available products. The program also undertook a concurrent approach to producing, testing, and fielding the most survivable vehicles as quickly as possible. To expand limited existing production capacity, the department expanded competition by awarding IDIQ contracts to nine commercial sources. To evaluate design, performance, producibility, and sustainability, DOD committed to buy at least 4 vehicles from each vendor. According to program officials, subsequent delivery orders were based on a phased testing approach with progressively more advanced vehicle test results and other assessments. To expedite the fielding of the vehicles, the government retained the responsibility for final integration of mission equipment packages including radios and other equipment into the vehicles after they were purchased. DOD also designated the MRAP program as DOD's highest priority acquisition, which helped contractors and other industry partners to more rapidly respond to the urgent need and meet production requirements. Finally, some of the contractors involved in the acquisition responded to the urgency communicated by the department by investing their own capital early to purchase needed steel and other critical components in advance of orders. The decision on the part of the contractors to purchase components in advance of orders was not required under their contracts and was done at their own risk.

[4]Only the Marine Corps acquired these vehicles. The Army is pursuing a separate acquisition program to replace its current fleet of vehicles that perform this mission.

DOD leadership took several steps to communicate the importance of producing survivable vehicles as quickly as possible, for example

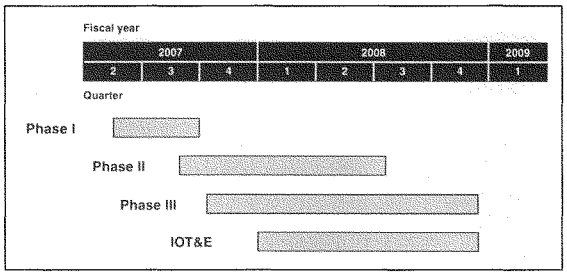
- In May 2007, the Secretary of Defense designated MRAP as DOD's single most important acquisition program and established the MRAP Task Force to integrate planning, analysis, and actions to accelerate MRAP acquisition.
- The Secretary also approved a special designation for MRAP—a DX rating— that requires related contracts to be accepted and performed on a priority basis over other contracts without this rating.
- The Secretary of the Army waived a restriction on armor plate steel, which expanded the countries from which DOD could procure steel.
- DOD allocated funds to increase steel and tire production capacity for MRAP vehicles as these materials were identified as potential limiting factors for the MRAP industrial base.

DOD recognized that no single vendor could provide all of the vehicles needed to meet requirements quickly enough and invited vendors to offer their non-developmental[5] solutions. The request for proposal made clear that the government planned to award one or more IDIQ contracts to those vendors that were determined to be the best value to the government. The Marine Corps awarded IDIQ contracts to nine vendors and issued the first delivery orders in early 2007 for 4 vehicles from each vendor for initial limited ballistic and automotive testing. One vendor could not deliver test articles in the time required and the Marine Corps terminated that contract at no cost to the government. According to program officials, vehicles from another vendor did not meet minimum requirements and the Marine Corps terminated the contract for convenience.

[5] A non-developmental item means any previously developed item of supply used exclusively for government purposes by a federal agency, a state or local government, or a foreign government with which the United States has a mutual defense cooperation agreement; any item described above that requires only minor modifications or modifications of a type customarily available in the commercial marketplace in order to meet the requirements of the procuring department or agency, or any item of supply being produced that does not meet the requirements described above solely because the item is not yet in use. FAR 2.101.

Conventional DOD acquisition policy dictates that weapons be fully tested before they are fielded to the user. However, the need to begin fielding survivable vehicles as quickly as possible resulted in a phased approach designed to quickly identify vehicles that met the requirement for crew protection so they could be rapidly fielded. This approach resulted in a high degree of overlap between testing and fielding of the MRAP vehicles; orders for thousands of vehicles were placed before operational testing began and orders for thousands more were placed before it was completed. Figure 1 shows the concurrent nature of the overall test plan.

Figure 1: MRAP Developmental and Operational Test Plan



Source: GAO based on DOD information.

The Director, Operational Test & Evaluation approved the MRAP Test and Evaluation Master Plan in 2007. Candidate vehicles underwent ballistic and automotive testing beginning in March 2007. The test plan included three phases of developmental tests (DT) of increasing scope as well as initial operational test and evaluation (IOT&E). Phase I included a limited evaluation by users. Phase II further evaluated vehicles at the desired level of performance against the ballistic threat, added more endurance miles to the automotive portion of the test, and included mission equipment such as radios and other electronic systems. Phase III raised the bar for ballistic performance to the emerging threat and assessed non-ballistic protection to include near-lightning strikes, high-altitude electromagnetic pulse, and nuclear, biological, and chemical decontamination tests. The automotive portion of the test increased endurance to 12,000 miles per vehicle.

Developmental and operational tests were conducted from March 2007 through June 2008. Each of the six MRAP variants have also undergone

IOT&E. All vehicles were rated operationally survivable and operationally effective with limitations by the Army Evaluation Center. These limitations were comprised of vehicle size, weight, mobility, and weapon dead space. All vehicles were also rated operationally suitable with limitations. These limitations were due to logistic shortfalls, payload restrictions, and restricted fields of view.

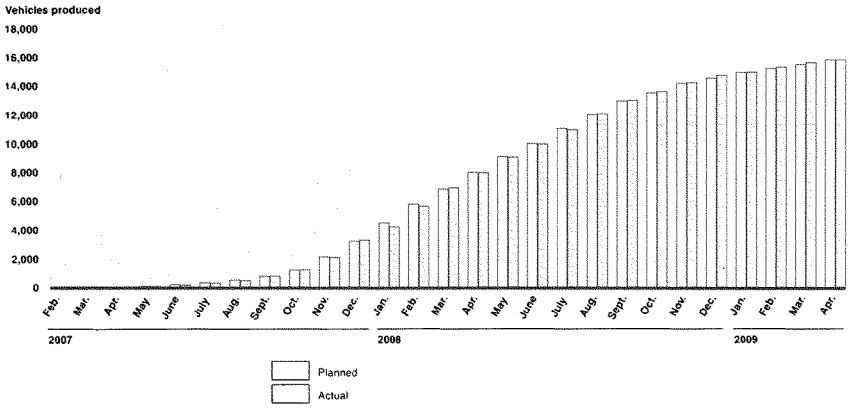
MRAP Schedule and Performance Results Have Been Very Good

Schedule and performance results for the MRAP have been very good overall. At the time of our review in July 2008, nearly all of the developmental and operational testing had been completed; the Marine Corps, the buying command for the MRAP, had placed orders for 14,173 MRAPs; and, as of May 2008, a little more than a year after the first contracts were awarded, 9,121 vehicles had been delivered. As of July 2009, 16,204 vehicles have been produced and 13,848 vehicles have been fielded in two theaters of operation. Total procurement funding for the MRAP vehicles, mostly through supplemental appropriations, was about $22.7 billion. According to DOD officials, the MRAP is providing safe, sustainable, and survivable transport for troops in the theater. It recognizes that MRAPs have limitations, particularly in the area of off-road mobility and transportability. Nonetheless, MRAPs are considered outstanding vehicles for specific missions.

Twenty-one months elapsed from the time the need was first identified in February 2005 until the sole source IDIQ contract was awarded and subsequent orders were placed for the first 144 vehicles in November 2006. Three months elapsed between the award of the sole source contract and the delivery of vehicles under the orders placed pursuant to the contract in February 2007—about the same time the IDIQ contracts were awarded to multiple vendors for more vehicles. Testing of vehicles delivered under orders placed pursuant to the newly awarded contracts began one month later in March 2007. Initial operational capability was accomplished in October 2007 or about 33 months after the need was first identified.

Ultimately, MRAP vendors have successfully increased their production rates to meet the delivery requirement (see fig. 2). Production began in February 2007 with one vendor producing 10 vehicles. By March 2008—a little more than a year after the contracts were awarded—6,935 vehicles had been produced.

Figure 2: Actual Versus Planned Production (monthly)



Source: GAO analysis of Joint Program Office data.

According to DOD officials, the MRAP provides survivable, safe, and sustainable vehicles for troops in theater. It is recognized that MRAPs have limitations, particularly in the area of off-road mobility and transportability. Nevertheless, MRAPs met minimum requirements for specific missions. Based on an earlier survey of over 300 soldiers interviewed in the field, warfighters were satisfied with MRAP overall, which offers significant improvement in survivability. MRAP vehicles were seen as well suited for combat logistics patrols, route clearance missions, raids, quick reaction forces, and other missions requiring large, dismounted force. MRAP vehicles were seen as not well suited for mounted patrols in constrained urban areas or extensive operations in off-road operations.

Many Lessons Learned, Many Challenges Remain

As with any acquisition of this nature, there are lessons to be learned. On the positive side, it appears that quick action by the Secretary of Defense to declare the MRAP program DOD's highest priority and give it a DX rating allowed the government and the contractors access to more critical materials than otherwise would have been available. The availability of

funding mostly through supplemental appropriations was essential. In addition, the decisions to 1) use only proven technologies, 2) keep requirements to a minimum, 3) infuse significant competition into the contracting strategy, and 4) keep final integration responsibility with the government are all practices that led to positive outcomes. Challenges remain in the form of reliability, mobility, and safety, which have required some modifying of the designs, postproduction fixes, and adapting how vehicles were to be used. Also, long term sustainment costs for MRAP are not yet well understood and the services are only now deciding how MRAP will fit into their longer term organizations. This combination of actions executed to address the urgent need for accelerating the delivery of MRAP vehicles to theater was innovative and effective.

Major vendors and key subcontractors responded to the urgency communicated by the department. According to vendor officials from four of the companies, they collectively invested a substantial amount of their own capital in anticipation of MRAP work. For example, some vendors purchased steel and other critical components in advance of delivery orders for MRAP vehicles in order to meet projected time lines. In other cases, vendors purchased or developed new facilities for MRAP production. Multiple vendors also formed teaming arrangements to meet the increase in vehicle delivery demands. As stated above, these actions on the part of the contractors were not required under their contracts and were done at their own risk.

On the down side, because of unique designs, operating procedures, and maintenance for multiple vehicles from multiple vendors, vehicle maintenance and support has been somewhat complicated. To ease maintenance and support concerns in the near term, the MRAP program office established a centralized training entity where maintainers would be cross-trained on multiple vendors' vehicles. Longer term, a key challenge for DOD will be to effectively manage maintenance personnel and vehicle repair parts without sacrificing vehicle operational availability. Also, long term sustainment costs for MRAP are not yet projected and budgeted. The Services are only now deciding how to fit MRAP vehicles into their organizational structures. Another lesson, based on operational use of the MRAP vehicles, was their lack of maneuverability and off-road capability. As a result, DOD is in the process of acquiring an all terrain version of the MRAP to address the more difficult terrain and road conditions in Afghanistan. While most of the vehicles met ballistic requirements, other issues were identified (reliability, mobility and handling, and safety). These issues required some modifying of the designs, postproduction fixes, or adapting how vehicles were to be used. Testing of proposed

solutions to more advanced threats continues. The program office continues to enhance MRAP vehicle system performance through capability insertion initiatives executed via engineering change proposals. Such changes are verified through testing. This testing will be an ongoing process as additional upgrades are applied.

Broader Lessons and Implications from the MRAP Acquisition

What were the keys in DOD meeting the urgent requirement for fielding MRAP in a timely manner? First, DOD kept the requirements simple, clear, and flexible and did not dictate a single acceptable solution. Second, DOD made sure that only mature technologies and stable designs were used by setting a very short and inflexible schedule. DOD acting as integrator of government furnished equipment after initial delivery eliminated some risk and uncertainty. Third, MRAP was also given the highest possible acquisition priority and the participating contractors responded in positive ways to meet the needs. Fourth, full and timely funding for the acquisition was a definite plus. The question is, can this formula be applied to all of DOD's major acquisitions and the broader acquisition process? The first two keys—simple requirements and mature technologies—certainly can be and, in fact, recent changes to the department's acquisition policies and acquisition reform legislation passed by the Congress should enable these practices to be implemented easier than in the past. However, the MRAP program also owes it success to the third and fourth key practices as well—a DX rating as the highest priority acquisition in the department and nearly unlimited funding to meet the urgent need—that are not scalable to the broader acquisition process. Not every program can be a highest priority and acquisition funds are constrained.

While the MRAP acquisition benefited from all of the practices mentioned above, the biggest differentiator between that rapid acquisition and other more common acquisitions in DOD was that it established requirements that could be achieved with existing technologies. Recent studies by the Defense Science Board[6], the Defense Acquisition Performance Assessment Panel (DAPA),[7] and GAO all indicate that the department can and should acquire and deliver weapon systems that fulfill urgent warfighter needs to the field much more quickly. The DSB study recommends a dual

[6] Report of the Defense Science Board Task Force on the Fulfillment of Urgent Operational Needs, July 2009.

[7] A Report by the Assessment Panel of the Defense Acquisition Performance Assessment Project "Defense Acquisition Performance Assessment, January 2006.

acquisition path that allows for a "rapid" acquisition process for urgent needs and "deliberate" acquisition processes for others. It recommends a new agency, proposed as the Rapid Acquisition and Fielding Agency, that would be focused on speed, utilizing existing technologies, and acquisition flexibility to achieve the "75 percent solution" quickly. The DAPA Panel report, among other things, recommended that the acquisition process should never exceed 6 years from its beginning to initial operational capability of the acquired weapon system. It stated that mature technologies and achievable requirements are critical to the success of such time certain development efforts.

GAO has issued multiple reports under our "best practices" body of work that underscore the need for faster development cycles and the need for mature technologies, well understood requirements, systems engineering knowledge, and incremental delivery of capabilities to enable quicker deliveries. As early as 1999[8], we concluded that successful product developments separated technology development from product development, invested time and money in ensuring that their technology base was vibrant and cutting edge, and eliminated technology risk from acquisitions. We noted that the DOD's science and technology (S&T) organization would need to be organized and structured differently, provided more funding to take new technologies to higher levels of maturity, and would have to coordinate better with the department's acquisition community to achieve the synergies necessary to reduce cycle times. We made recommendations along those lines. We believe that the "game changer" today in achieving rapid acquisition is the technology base. Finally, a broader lesson learned is that it may be time to invest the time, money, and management skills in the S&T community to enable the effectiveness we expect from the acquisition community.

Mr. Chairman, that concludes my prepared statement. I will be happy to answer any of your questions.

Contacts and Staff Acknowledgements

For future questions about this statement, please contact me on (202) 512-4841 or sullivanm@gao.gov. Individuals making key contributions to this

[8] Best Practices: Better Management of Technology Development Can ImproveWeapo System Outcomes (GAO/NSIAD-99-162, July 30, 1999).

statement include William R. Graveline, Paul Williams, Dayna Foster, Danny Owens,

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WITNESS RESPONSES TO QUESTIONS ASKED DURING THE HEARING

October 8, 2009

RESPONSE TO QUESTION SUBMITTED BY MR. ANDREWS

Mr. SULLIVAN. The concept of a "tech bullpen"—that is, having relevant and feasible technologies available to transition into product development on major weapon system acquisition programs is doable, but the department and the services would have to significantly change the way their current science & technology environment is structured, funded, and organized to meet the needs of the acquisition community and the warfighter. Stovepipes must be eliminated, funding should be shifted from acquisition to science and technology organizations for technology exploration and development, and much better communication between the acquisition programs and the technology base must be established. We have visited world class technology firms who have been able to put in place practices to ensure that the proper technologies are being nurtured to meet their customer requirements and that they are ready and mature enough to transition to product lines in order to meet the customer's needs in a timely manner. We believe DOD could benefit from adopting some of these practices and adapting them to its own national security mission.

Leading commercial companies use three key techniques for successfully developing and transitioning technologies, with the basic premise being that technologies must be mature before transitioning to the product line side.

- Strategic planning at the corporate level: Strategic planning precedes technology development so managers can gauge market needs, identify the most desirable and relevant technologies, and prioritize resources. Strategic planning is considered a precursor to transition and allows managers to identify market needs so the company can quickly adapt its technology portfolios to meet those needs.
- Gated management reviews: A rigorous process with meaningful metrics is used to ensure a technology's relevancy and feasibility and enlist product line commitment to use the technologies once the labs are finished maturing them.
- Corroborating tools: To secure commitment, technology transition agreements solidify and document specific cost, schedule, and performance metrics labs need to meet for transition to occur. Relationship managers address transition issues within the labs and product line teams and across both communities. Meaningful metrics gauge project progress and process effectiveness.

Over the past several years, DOD has taken steps to improve its transition processes, but it lacks many of the techniques that are hallmarks of leading firms' ability to transition technology smoothly onto new products. From a strategic perspective, the department lacks strong influence at the corporate level to guide the department's technology investments. In addition, DOD does not use a gated process with criteria that would allow lab and program managers to know when a technology is ready to transition. Consequently, technologies are often not ready when needed and acquisition programs pull the technologies into their programs too early, leading to inefficiency during product development and cost and schedule increases.

We've found that DOD has taken some positive steps to aid technology transition. They hold promise, but must be accepted, improved, and replicated significantly more than currently to have a positive impact. For example, each of the military services has established boards to select and oversee some of their technology projects and has elevated the importance of meaningful metrics. They are also using technology transition agreements. However, use of these agreements thus far has been low. With regard to improving communication, DARPA is using relationship managers to address transition issues. And the Office of the Secretary of Defense has initiated a number of new programs, including the Joint Capability Technology Demonstration program, which requires the S&T and acquisition communities to work more collaboratively earlier in the acquisition process.

Despite different environments, we think the practices used by some of the world class firms we've visited can help DOD make better progress in transitioning technologies to weapon programs if adopted and adapted. Private companies operate in a competitive environment that demands speedy delivery of innovative, high-quality products to satisfy market needs or the company will go out of business. DOD has a variety of "customers" and complex relationships that often hinder the chief tech-

nology officer at the corporate level from providing the type of strategic leadership found at successful companies.

DOD puts pressure on itself to develop many new technologies. And because competition for funding is fierce, the technologies described with many superlatives for speed and lethality tend to get more attention than others do. We previously reported that to secure funding, DOD program managers frequently make overly optimistic promises to the warfighter about technologies' cost, feasibility, risk, and delivery schedule. The challenge for DOD and congressional decision makers lies not only in the "how to" aspects of technology transition but also in creating stronger and more uniform incentives that encourage the S&T and acquisition communities to work together to deliver mature technologies to programs. [See page 26.]

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