**DoD Mentor-Protégé Program**

**The Department’s Small Business Incubator**

It’s a great thing to be at the annual Nunn-Perry Mentor-Protégé Awards Conference. I was involved with two small businesses and sure wish I had had a mentor. I think it would have been a great path to success for some and that it really represents a great path forward for small, innovative companies to be a success and learn our business—which is not easy. As Frank [Ramos] said, it might take a long time to get experienced enough to know you shouldn’t have been in the business at all. But once in, it’s really about patriotism and a lot of support and a lot of excitement that keeps you involved. I appreciate the fact that you all have, if you will, broached the door and come in. I welcome all of you—mentors, protégés, the DoD sponsors—to this great event.

This truly is an important time to be involved with the defense of our nation, striving to ensure that its defenders get the right equipment to do their mission. Certainly the events of the past week are a grim reminder of what we’re about. We share the grief for the people in Madrid, in Spain. It actually hardens our resolve in fighting off this attack on democracy, and in democracy’s global war on terror. The common purpose extends beyond just the Department of Defense. It includes not only other government departments and agencies, but also American industry—companies large and small who together contribute to our common defense. This is why I wanted to address this annual gathering and am pleased to be here to do so.

**Mentor-Protégé Program—DoD’s Small Business Incubator**

I see your collaborative effort as our Department of Defense small business incubator, although many of you are far beyond that and coming out of the incubator as if you are 10 feet tall. This innovative program nurtures and develops a relationship between large and small business. Dynamic partnerships not only help us meet our industrial base goals, they also directly support the secretary of defense’s transformational agenda. That is what I’d like to focus on for the remainder of my remarks. This year’s conference theme is “transforming America together through innovative technology.”

**Genesis of Transformation**

To put this theme in perspective, let me briefly describe the genesis of the transformation initiative. About five years ago, while he was still a candidate for the presidency, George W. Bush outlined his agenda for the defense of the United States in a speech at the Citadel military academy. He made, at that time, a commitment to missile defense. He talked about accelerating the capabilities of information age technology, making our forces more agile, more lethal, and more readily deployable. He emphasized precision over mass, innovation over tradition, and of course he acknowledged the threat by transnational terrorist groups as they were known then, and promised to engage our military establishment in countering them. In short, the president, at that time, as a candidate, challenged us to transform America’s military, a transformation he further described as nothing less than the redefinition of war on our terms. Five years on, the
world is a drastically different place, with that division of our defense priorities having been proven to be largely helpful and extraordinarily prophetic. Allow me to highlight the changes that have occurred during this administration.

- We will in fact deploy the initial defensive operations capability in Alaska towards the end of this year. We in the Office of the Secretary of Defense along with the Joint Staff, have rewritten both the DoD 5000 and the Joint Staff’s 3170, which are really the rules on requirements definition and the growth to and in program management. Joint interoperability is now the gold standard for the Defense Acquisition Board’s review process.

- The Office of the Secretary of Defense and the Office of the Joint Chiefs of Staff are restructuring the management of logistics in a major way to speed the acquisition and flow of goods from America outbound to our Services. We have embraced (both Defense Logistics Agency and the Transportation Command) focused logistics within the Services for all inbound/outbound goods and services.

- I’ve saved the most obvious change since 1999 for last, but it is by no means the least important. In fact, it is absolutely paramount to our transformation. Our American fighting forces and the members of our coalition supporting the global war on terrorism are deployed in combat operations around the world now and will be for the foreseeable future.

Small Steps, Medium Jumps, a Few Big Bets
In light of the clarity of this mission, the Joint Staff has decided on five functional capabilities that our forces must have in order to deliver operational effects: battlespace awareness, battlespace command and control, force application, force protection, and focused logistics. The Department is using these five capabilities to build a single integrated framework of operational concepts, requirements, systems interfaces, and systems architectures. We see ourselves transforming to these capabilities through many continuous small steps, some medium jumps, and a few of what retired Defense Transformation Director Admiral Art Cebrowski calls “big bets.” Our understanding of this new strategic environment tells us that the big bets are not options. If you’re not making any, then you’re a targeted risk in the future.

In essence, this is what netcentricity—our framework for network-centric warfare—is all about. We see it characterized by high rates of change, closely coupled events, lock in and lock out, and speed of command. In this framework, it pays you to pay attention to what we now value within the Department as we bring programs into the studies and analysis area.

What Does DoD Value?
First, maneuver. Second, sensing. Third, envelope management, which merely means a little bit of watching out for collateral damage and making sure that your envelope, in fact, is what you want. Speed coupled with endurance; numbers in the sense of reliability statistics. How can we keep down the force structure that is involved? How can we keep the numbers of our fighters to a minimum? A higher degree of risk tolerance—some of which you saw in Operation Iraqi Freedom—and then networking in a very different way from the way that networking might have been known pre-1999.

Net-centric communications really means sharing information. In fact, what we really are changing from is sort of a permission to share to a need to share. That means that where we used to study our defenses and be very careful about how our information was collected and protected, we now have a need to share that information as fast as possible, process it, and share it once again. It’s a very different approach, and it is frankly driving our security folks a little bit nuts. But the fact is, operations trumps security many, many times.

What Defense Transformation Looks Like
Admiral Cebrowski has also put out some thoughts about what the evidence of transformation looks like. In fact, I heard a good word the other day, which is “transfor-metrics.” How do you “metrify” what you’re trying to achieve? Because you know if you can put metrics to it, then you can manage it. Art [Cebrowski] is searching/reaching for the evidence of transformation. How is it devolving into our culture? I think his organization is off to a good start in helping us recognize transformation when we see it.
Dr. Nancy Spruill (below left), director, Acquisition Resources & Analysis, OUSD(AT&L), joins Frank Ramos (below right), director, Small and Disadvantaged Business Utilization (SADBU) in honoring 11 teams at the 2004 Nunn-Perry Awards presentation on March 17 in Alexandria, Va. The Nunn-Perry awards provide incentives for major DoD prime contractors—"Mentors"—to help "Protégés"—small disadvantaged businesses, women-owned businesses, and qualified organizations that employ the severely disabled. Recipients of the Nunn-Perry Award are selected on the basis of each mentor-protégé team's success in achieving cost-efficiencies, enhancing the protégé's technical capabilities, and increasing new business opportunities for prime contracts and subcontracts within the DoD.

In addition to recognizing Nunn-Perry Award winning teams, the 2004 DoD Mentor-Protégé Conference focused on "Mentors and Protégés: Transforming America Together through Innovative Technology." Attendees included directors from the military services and other defense agencies, SADBU offices, program managers, other government personnel, and key large and small defense contractors. Keynote speakers included Acting Under Secretary of Defense for Acquisition, Technology and Logistics Michael Wynne; Congressman Howard P. "Buck" McKeon (R-Calif.); Director, International Affairs, Department of Homeland Security Cresencio "Cris" Arcos; and Ramos.

**Mentor—AMEC Earth & Environmental Inc.**
Protégé—Zambrana Engineering Inc.

**Mentor—IBM Corporation**
Protégé—Communication Technology, Inc.

**Mentor—Shaw Environmental, Inc.**
Protégé—ADVENT Environmental, Inc.

**Mentor—Northrop Grumman Mission Systems**
Protégé—Computer & Hi-tech Management, Inc.

**Mentor—Tetra Tech, Inc.**
Protégé—EM-Assist
N-PERRY AWARDS
Director in Honoring 11 Exceptional Mentor-Protégé Teams

Mentor—The Boeing Company
Protégé—Precision Machine & Manufacturing Company

Mentor—Electronic Data Systems
Protégé—APT, LLC

Mentor—Raytheon Company
Protégé—MIRATEK Corporation

Mentor—Science Applications International Corporation
Protégé—Houston Associates, Inc.

Mentor—Tetra Tech EM, Inc.
Protégé—Sullivan Consulting Group

Mentor—Science Applications International Corporation
Protégé—GEO Consultants, LLC
It’s a little bit like quality—knowing quality when you see it, but being unable to judge without difficulty what the metrics are for achieving it.

First is an increase in our capability to dominate in the sensor war. Second, a compressed and seamlessly integrated cycle for planning, organizing, deploying, employing, and sustaining our United States forces overseas. We have new command structures emerging that leverage network capabilities. We have an information advantage that has been turned into a competitive advantage against stated enemies called “decision superiority.” We now talk about things like information advantage, decision superiority, and closing in on the information paradigm. We also talk about radically reducing the logistics demands of our deployed forces through increases in reliability, and frankly, better use of our precision capability, and a good look at bomb damage assessment and/or battle damage assessment. We’ve created some concepts and capabilities to determine how to operationalize (i.e., fight) a little bit better once we have information superiority. There was always a sort of hesitation of “Is it real?” I think that as we develop a little bit more trust in our networks, we see it as being real and we can now fight it. The companies that understand not just the five functional capabilities, but the criticality of having that single integrated framework—and that are nimble enough to provide us enough of the products that enable the single integrated framework—are going to get the Department’s attention.

I challenge you, the Mentor-Protégé participants, to bring innovative solutions for our most pressing problems. Every day we search for technology or practical solutions to save lives for both our military and civilians around the world. I’d ask for your assistance in that regard.

**Big Think vs. Big Dollars**

I have told the Joint Staff, Joint Forces Command, and our Service staffs that the greatest challenge of our military transformation is that of battlespace integration, and now I’m telling you. In this area, more than any other lie both challenge and opportunity. The challenge now requiring a solution soon is to achieve a true joint battlespace management architecture. It is perhaps the single most vital warfighting technology for our military transformation. It isn’t the big dollars. It’s the “big think” that’s affecting us now. It’s a big change when you think about it. We used to do big dollars and now we’re forcing ourselves to do big think. It’s a radical change.

One of the things that’s interesting about it is that it really doesn’t cost a lot of money to accomplish this part of transformation. It’s a bit like asking the question though, when the ancient Romans were formed into their phalanxes—nobody gave them better sticks. They just formed into better phalanxes and were able to defeat horse-drawn infantry. Same thing goes in a lot of our cultural transformation. In fact, in the German blitzkrieg, you don’t fully realize that less than 10 percent of the German forces were truly modernized. But that 10 percent and their employment was the major difference in the German thrust early in World War II. Going away from the big thing to the big think is a big deal. It’s something that you must realize.

**Mentor-Protégé—an Industrial Base Tool**

Achieving a true joint battlespace management architecture is vital to where we’re going. In this regard, Frank [Ramos] and I have discussed and agreed to incorporate the Mentor-Protégé Program as an industrial base tool to mutually complement the small business innovative research and the small business technology transfer programs, better known as the SBIR and the STTR programs. These programs represent more than a billion dollars, and this effort has a lot of potential to get the attention of the Department. Alignment of the Mentor-Protégé Program, which is a development program, with the SBIR and STTR programs and the technologies associated with them, should produce more stable, high-technology businesses that respond to the functional capabilities and the new laydown for the acquisition programs in the Department of Defense.

The concept of aligning these programs would further ensure that investment objectives are better realized and that our industrial base would be strengthened. Aligning these programs will enhance synergy between the programs and allow Frank Ramos, the director of the small business program office here, to better analyze how the Mentor-Protégé Program can best address the critical needs of the Department of Defense. This innovative approach will help us meet some major initiatives we’ve launched inside the acquisition, technology, and logistics function. We think they’re going to affect the defense industry, but I need all of your help to meet these important challenges.

In closing, I want to take this moment to personally congratulate all of the Nunn-Perry awardees for their small business contribution toward our nation’s defense. Your efforts are both praiseworthy and greatly appreciated. I commend the military services and the other defense agencies for sponsoring exceptional mentor-protégé partners. Together, small and large businesses will continue to help transform America’s military and keep us strong well into the future. Thank you very much for coming. Thank you very much for listening. And God Bless America.
During a Q&A session following his DoD Mentor-Protégé presentation on March 16, Acting Under Secretary of Defense (Acquisition, Technology and Logistics) Michael Wynne was asked about his views regarding renewed emphasis on systems engineering in the acquisition process—a topic of increasing emphasis throughout today’s DoD Acquisition Workforce.

“I came into the office of the under secretary very troubled—troubled about systems engineering. What I’ve seen over the course of the time I’ve been here is that we had a stark revolution either in the late ’80s, early ’90s, where it was determined that the systems engineers are basically ‘greybeards’ who ask tough questions of program managers. As we all developed into Type A personalities, we decided that they were not as valuable as they could be. Most of the Type A personalities have a plan, execute the plan, get to the next plan, and then execute that plan without regard to how they might bump into each other. This is the role of systems engineering.

We (DoD) also at the same time had a tremendous reduction in the acquisition workforce—roughly 40-50 percent. Most of those individuals on the defense side—on the government side—turned out to be people associated with systems engineering. It created a real problem because once they were gone from the government side, they began to disappear as well from our contractor community.

A third wave that has occurred is the federally funded research and development centers (FFRDCs)—Mitre, Aerospace, RAND—all experienced reductions in the number of people that they could put on (research and development programs). So here we laid off people inside the government; we had people outside the government under pressure. Where could people turn for systems engineering analysis? It became very difficult.

Now, not to my surprise but as I analyze things, we’re running into problems with our major programs—e.g., the F-22 integration. We did in fact resolve the Comanche problem, but it was an integration problem. The space-based infrared radar system. Problem? Integration. These are all systems engineering problems, so this is a long way to answer your question, but my vision is that we restore systems engineering philosophies and the disciplines that are associated with them. I’ve asked for the systems engineering master plan to be a part now of program generations so that we’ll understand what discipline is required to bring this about.

I think there’s been a total resurgence around the community in recognition of the fact that we’ve let things go too far. Ours is kind of a pendulum society. We see things as too dramatically over on this side; we begin to swing it back and before you can stop it, it’s through the center and off to the other side. I think we got through that other side and we didn’t like that either. So maybe we had a little too much oversight, but now we have too little. That’s my vision of systems engineering—to essentially restore the disciplines that I think have brought us great programs.

The Missile Defense Agency has an example of a marvelous systems engineering approach. Now they did it, by the way, by declaring a national need and assembling quite a few brains that they call the ‘national team,’ which really is almost a not-for-profit that’s been contributed by all of the major players. Their role is to advise, provide advice, and sole counsel to the program office in the way that we should have had all along inside the program office. I really do appreciate the laydown that they showed me because I asked them and demanded, ‘How are you doing this?’ because it really is a very complex program. I also sent folks over to look at their software programs, to do an audit, to see if they were good. Turns out the systems engineering master plan flowed right into their software development. I think if we had implemented that, we would have had a lot easier time in some of our other programs. That’s where we’re headed. Thanks for your question.