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CHALLENGES TO DOING BUSINESS WITH THE DEPARTMENT OF DEFENSE

HEARING

BEFORE THE

PANEL ON BUSINESS CHALLENGES
WITHIN THE DEFENSE INDUSTRY

OF THE

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PANEL ON BUSINESS CHALLENGES WITHIN THE DEFENSE INDUSTRY

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CHALLENGES TO DOING BUSINESS WITH THE DEPARTMENT OF DEFENSE

HOUSE OF REPRESENTATIVES,
COMMITTEE ON ARMED SERVICES,
PANEL ON BUSINESS CHALLENGES WITHIN THE DEFENSE INDUSTRY,
Washington, DC, Tuesday, September 20, 2011.

The panel met, pursuant to call, at 3:01 p.m. in room 2212, Rayburn House Office Building, Hon. Bill Shuster (chairman of the panel) presiding.

OPENING STATEMENT OF HON. BILL SHUSTER, A REPRESENTATIVE FROM PENNSYLVANIA, CHAIRMAN, PANEL ON BUSINESS CHALLENGES WITHIN THE DEFENSE INDUSTRY

Mr. SHUSTER. The hearing will come to order.

Good afternoon. I want to take the opportunity to welcome our three witnesses today. Thank you very much for taking your valuable time and spending some of that with us here today and, of course, those in the audience that are interested.

This is our first in a series of hearings this panel will hold examining the business challenges in the defense industry today. Chairman McKeon and Ranking Member Smith established this panel to take a deep dive into the challenges facings firms that already work with the Department of Defense and those that want to do business with the Department. I am honored that Chairman McKeon asked me to lead this panel, alongside my good friend from Washington State, Rick Larsen.

And I might add for one of our witnesses, you may know the town. As you drive to your farm in Bedford County, you may pass through Everett. Well, that is the important Everett: Pennsylvania. He is from Everett, Washington. So I am going to keep making references every chance I get so I can elevate Everett, Pennsylvania, to a rank above the great city of Everett, Washington. But I am glad that Mr. Larsen is leading this panel with me.

And rounding out our panel members are: Bobby Schilling from Illinois, who I don't believe is going to be making it in today. Bobby represents the 17th District in Illinois, which contains Rock Island Arsenal. Bobby is a small-business owner and has firsthand experience with the difficulties dealing with the Government at all levels.

Betty Sutton, who represents the 13th District of Ohio. As the co-chair of the Congressional Task Force on Job Creation, Betty is dedicated to promoting good business practices and creating American jobs.

Jon Runyan from New Jersey. Jon represents the Third District of New Jersey, which contains Fort Dix and McGuire Air Force

Base, and has a vested interest in defense business practices across the board.

Colleen Hanabusa is from the First District of Hawaii and has been involved in Hawaii politics since 1998. With a large defense presence in Hawaii, Colleen understands how important it is to bring efficiency and effectiveness to the defense industry.

And Allen West from the 22nd District of Florida. Allen retired from the Army in 2004 after 22 years and brings a unique perspective of experience on both sides of the table, Government and industry.

Again, I want to thank everybody for being here today and taking the time to lend your expertise to this effort.

We have all heard in our districts and across the country from businesses that find it extremely difficult to successfully navigate the DOD [Department of Defense] acquisition system. This is particularly true for small businesses and those involved in science and technology efforts. While there are programs out there that assist businesses in transitioning innovative ideas and technologies to a final end product that satisfies a military requirement, there are many obstacles in the way.

In these current economic times, we must make good use of every tax dollar we spend on defense, and we can do this by leveraging the heart of the American workforce: Small businesses. By reducing barriers to entry, we can generate competition, spur innovation, and stimulate the economy. So I look forward to working with my fellow panel members here as we move forward.

And with that, I will yield to the ranking member, Mr. Larsen, if he has any comments.

[The prepared statement of Mr. Shuster can be found in the Appendix on page 33.]

STATEMENT OF HON. RICK LARSEN, A REPRESENTATIVE FROM WASHINGTON, RANKING MEMBER, PANEL ON BUSINESS CHALLENGES WITHIN THE DEFENSE INDUSTRY

Mr. LARSEN. Thank you, Mr. Chairman.

And I want to thank Chairman McKeon and Ranking Member Smith, as well, for putting this panel together. In 6 months, we will have substantive solutions to the challenges that small and medium-sized businesses face when they approach the Department of Defense.

The Federal budget is increasingly strained, and we have to ensure that the needs of our military to provide for national security and defense are not shortchanged. In order to accomplish this, DOD will need to stretch their dollar and maintain robust competition. Better contracting also offers a chance for job creation and growth for companies that often have the best products but find barriers in their path when they approach the DOD. How to make and implement improvements is something we will aim to discover over the next few months.

Small and medium-sized businesses need to be part of the defense industrial base, and that means rethinking the current model. Our goal must be to break down barriers and improve competition for defense contracting to get better prices, better products, and better services for the warfighter.

So I want to thank our witnesses for participating today to help us understand their issues as well as the general framework for the challenges that we are going to face as we help identify solutions.

Last month, Bill joined me in Everett, Washington—which we have heard so much about already, but I will tell you the truth about it—which is in my district, where we held a roundtable with about 20 local businesses. We spoke with them about their successes and their failures in working with the DOD. One individual spoke of having to outline technical specifics to the DOD in order to have a proposal released, only then to have the competition have access to those specifics. Another spoke of the very simple issue of not receiving payment on time—a serious concern for small companies who are not flush with cash. We need to continue to talk and to listen to these businesses and to find solutions for them.

So I want to thank all my colleagues for agreeing to serve on this panel. I believe this entire group of Members brings a diverse perspective on these issues. We are all here because we want to improve the chance for competition, for job growth, and for making certain our women and men in the military have the best options and capabilities available to them.

Thanks again.

[The prepared statement of Mr. Larsen can be found in the Appendix on page 35.]

Mr. SHUSTER. Thank you.

Before I turn to our witnesses, we have a piece of administrative work that we have to take care of. So I ask unanimous consent that the work plan for the panel, which has been distributed to all members, be entered into the record.

And, without objection, so ordered.

[The information referred to can be found in the Appendix on page 95.]

Mr. SHUSTER. Again, that will be an official part of the record.

And we are going to get started here. And, again, I want to thank our witnesses for being here today. I will introduce all of you now and then go to each of you for your testimony.

First, Mr. A.R. "Trey" Hodgkins III, senior Vice President for national security and procurement policy, TechAmerica. Glad to have you here, and glad to know you have some sort of roots planted in Pennsylvania.

Mr. Bradford L. Smith, Jr., President and CEO [Chief Executive Officer] of Strategic Analysis, Incorporated. And, again, Mr. Smith informs me that his family is from Butler County, Pennsylvania. So, somehow, if I can just get some kind of Pennsylvania—I can go back to my district and say, everybody who testified in front of me today were Pennsylvanians or had some connection.

Ms. Heidi Jacobus is the CEO of Cybernet Systems Corporation. Thank you for being here.

I again welcome you all.

And we will turn to Mr. Hodgkins first, and you may proceed.

STATEMENT OF A.R. "TREY" HODGKINS III, SENIOR VICE PRESIDENT FOR NATIONAL SECURITY AND PROCUREMENT POLICY, TECHAMERICA

Mr. HODGKINS. Thank you, Mr. Chairman and Ranking Member Larsen and members of the panel.

My name is Trey Hodgkins, and I am the senior vice president for national security and procurement policy at TechAmerica. I want to thank you for the opportunity to testify about business challenges within the defense industry and highlight tech-sector perspectives on those challenges. Technology is ubiquitous in the missions of the Department, and we believe it is a significant differentiator in the success of those missions.

TechAmerica is a leading voice for the U.S. technology industry, representing approximately a thousand companies of all sizes from the public and commercial sectors of the economy. Our members range from traditional defense industrial base integrators, or DIB [defense industrial base] companies, to the most innovative and agile of small technology firms. They function as prime suppliers, subcontractors, and many are commercial in nature and choose to operate entirely outside of the Federal market.

Most have a commercial business model, meaning they offer commercial items for sale around the world that are developed and manufactured using a global supply chain. These conditions impact how they view Government actions and whether or not they are interpreted as barriers, impediments, or incentives.

When commercial companies choose to sell to the Department, they rely upon '90s-era reforms that created a preference for commercial items in Federal Government acquisitions. The same laws require those transactions be as close as possible to commercial transactions for the same items and not include Government-unique requirements. These reforms gave DOD access to commercial technology and innovation while driving savings for the taxpayer.

Unfortunately, many of those premises have been forgotten or abandoned, and doing business with DOD no longer bears any meaningful resemblance to commercial business for the same or similar items. The Federal Government and DOD market share is also shrinking, and for many technology companies it now represents 5 percent or less of their total global market.

Making the business case for accepting the conditions we will discuss today is increasingly difficult in a global company or a small business. This impacts DOD access to innovation, competition, and mission success. For some commercial companies, business with the Federal Government has become too burdensome or too risky, and they choose to stay out.

I would like to elaborate on some of those barriers and will start with regulations and their burdens as an example.

A barrier to entry for innovation technology in small businesses is the regulatory burden on companies that sell to DOD. For example, TechAmerica identified an apparent increase in the use of interim acquisition rules with immediate enforcement requirements. The chart I included in my written statement shows that there is a clear and pronounced upward trend, from 8 cases in 2008 to 38 cases last year. This means companies and agencies have less time

to react to proposals and respond to become compliant. It also means that public participation is minimized in the process.

Another trend is the increase in acquisition regulation reporting burdens. Waivers from the Paperwork Reduction Act have become commonplace and fail to acknowledge the significant cumulative and Government-unique burden these requirements place on businesses. In calculating the reporting burden, the methodology the Government uses only accounts for time to complete the form, not the time needed to collect the data, and we believe it is a gross underestimation of the burden on industry.

DOD-specific regulatory trends are no better, with a marked increase in the use of guidance as a replacement for what industry feels should be promulgated regulatory actions. Compliance burdens associated with guidance or regulations are barriers to successful entry and sustainment in the DIB.

Other barriers are just as daunting and discouraging. Commercial companies look at the levels of disclosure and conclude with relative ease that they are a sufficient deterrent to doing business with the Federal Government. This apprehension is growing as requirements for reporting and disclosure expanded to subcontractors and suppliers.

Another barrier is the 3-percent withholding tax on Government contractors. TechAmerica commends the Armed Services Committee for their leadership in the effort to repeal this provision and encourage your continued efforts. The reduction in cash flow as a result of this withholding often forecloses considerations small businesses might have for bringing their innovations to Government.

Long procurement lead times typically encountered at DOD are also a barrier, particularly for commercial companies. They are unaccustomed to such long lead times and usually operate in environments using agile development in incremental models for short cycles of 6 months to a year. The DOD's 24-or-more-month lead times are not conducive to attracting the innovation these companies could bring to bear.

I would like to turn to challenges to bringing innovation to the public sector and DOD and point to Government-unique requirements placed on companies. I have already touched on some of those above. Others include the recent increases in efforts to change the ownership of intellectual property when companies sell to the Government. Governing laws in case decisions define specific points when ownership changes, but new proposals would blur those lines and make the Government a part owner for even relatively minor investments into an innovation for adoption by the Government.

Another impediment to effective adoption of technology and innovation is the emphasis placed in acquisitions on "lowest priced, technically acceptable." The practice has become the preference and now forces behavior that overlooks better or more secure products to save on the price. There now exists an aversion to consider for award products or services that are not "lowest priced, technically acceptable," even if the offering is more innovative and is the real best value for the taxpayer. An example where this policy is causing harmful consequences is in the assurance of the supply chain

for the Department. TechAmerica supports a change to require that acquisitions of information-technology hardware, software, and services are limited to the original equipment manufacturers or their authorized suppliers. But "lowest priced, technically acceptable" does not support such a need.

I will close by touching on financial impediments to the innovation adoption. TechAmerica believes the panel should focus on how funding limitations frequently pose a far bigger problem for transitioning technology for DOD. Current processes require the identification of technology desired before starting the multiyear funding request process. Frequently, the product is several generations old before that process can be completed. As was recommended in our GTO–21 [Government Technology Opportunity in the 21st Century] report to OMB [Office of Management and Budget], Congress should examine the way it funds technology acquisition and deployment because it is a real barrier to the successful adoption of innovation in the Department.

Again, I appreciate the opportunity to raise these issues for consideration with you this afternoon and look forward to further engagement with you on these issues.

[The prepared statement of Mr. Hodgkins can be found in the Appendix on page 36.]

Mr. SHUSTER. Thank you very much.

And, Mr. Smith, please proceed.

STATEMENT OF BRADFORD L. SMITH, JR., PRESIDENT AND CEO, CIVIL SERVICES STRATEGIC ANALYSIS, INC.

Mr. SMITH. I also want to thank you for the opportunity to testify.

My name is Bradford Smith. My company, Strategic Analysis, Incorporated, is a small to midsized company. We have been providing professional services to Federal agencies. We are a service-disabled, veteran-owned, founded in 1986, and have approximately 250 employees. We have offices in Arlington, Virginia; Washington, D.C.; Colorado Springs; and Dayton, Ohio.

And the types of services we provide are systems engineering, advisory services, intelligence support services, information technology, and conference planning. So it is a variety of services for the Departments of Defense, Energy, and Homeland Security. For most procurements, our 250-employee company is considered a large business, so we must compete full and open. For some, we are a small business. For SBIR [Small Business Innovation and Research], for research work we do, it is small.

I am making these comments after working in services for these agencies and departments for about 38 years. And, again, I understand that the format is to provide some brief comments ahead of fielding questions, so I would like to raise a few issues that I outline in my paper.

One specific concern of mine comes from the current trend to using ultra-large, indefinite-delivery, indefinite-quantity contracts for set-asides for very small businesses. The tendency to bundle is both prevalent in full and open competitions as well as in small-business set-aside. And, likely, with the highly constrained envi-

ronment, there will be an increasing tendency to bundle. There are efficiencies from the Government side.

I am very concerned that the very small companies that win such ultra-large set-asides must focus resources on strong proposal and program management capabilities—we have seen it across the spectrum of competitions we have been involved with—rather than on the unique skills and capabilities that they bring to bear. From my point of view, this is a tremendous deterrent to innovation in the sector of our industrial base, where much of our innovation starts.

Secondly, as a midsized business owner, I am quite concerned about being excluded from many set-asides or any set-aside competitions as a prime contractor. As a midsized company for almost all of the procurements that we go after, we compete full and open. I find it hard to believe that a company with 250 employees is too big to compete for a $1 billion, 5-year service contract. And that is the case today, with the exception of the Air Force. The Air Force has set aside—has created NAICS [North American Industry Classification System] codes where larger small businesses—500, 1,000, 1,200—can compete for service contracts.

For us, growth to midsize has been over a long period of time. We are celebrating our 25th anniversary. We have done it through vertical and horizontal movement to various client areas. Our reputation precedes us into the marketplace. We have not really been focused on set-asides, but we now find ourselves to be in a position where, because of set-asides, we find it more difficult to compete for the same work we have been doing over the period of our life.

And, again, I have to say, many owners of companies in my position now are choosing or have chosen to sell their companies to larger firms. But I truly believe that the Government is losing or could lose a significant sector in midsized businesses. And I am a strong advocate of midsized businesses because they have all the charm of small businesses and they don't have any of the trappings and downside of larger businesses.

And I commend to you a study done by David Berteau and his team on the services industrial sector—I will leave a copy of this—where it shows the trend of the sector in the middle—not the small, not the large, but the medium-sized companies—as being the one that has shrunk over the last 10 to 20 years.

Again, I can't reemphasize enough my belief that midsized companies are a significant resource for the Department of Defense. And, again, the differentiation of size is a continuum: Small, medium, large. Midsized companies are as innovative as small, I would argue; they are agile; and they have significant potential to create jobs. The conventional wisdom is that small businesses do that. I would argue that midsized businesses do it better and can be a more effective generator of jobs.

I want to highlight one specific regulation that makes the problem worse for small business. I will call it the "51 percent rule." Small businesses that win large prime contracts or any set-aside contract are required to, themselves, execute 51 percent of the effort, even while they may be teamed with other small businesses. And I do believe midsized companies or other small businesses are

much more effective at teaming with small business than larger firms.

To get the work done, to get the small-business contribution counted on their team, small businesses are forced now to form joint ventures, which I view as a highly risky endeavor for a small business. So you now are seeing greater prevalence of joint ventures of small businesses going after half-a-billion-dollar service contracts as a team. So you create a new corporate entity.

The 51 percent rule is very inflexibly applied, at this point. The Air Force, up until the GAO [Government Accountability Office] decision several years ago, was allowing the contribution of all the small businesses to be counted. And in recent times, based on that case, everybody is strident about it. Companies are disallowed unless their contributions are going to actually not only bid but perform. And if you have, I am going to notionally say, a half-a-billion-dollar contract, that is $100 million a year. For a small business—and I mean "small" meaning $4-million-revenue companies—it is a huge extrapolation to perform that much work.

So I recommend that—in fact, what is interesting about that is, it is frequent that such companies outgrow the ability to compete for follow-on work. So if you have a small business effectively performing a certain piece of work growing to the size to provide the types of service needed, at the end of that 5-year, or 10-year potentially, contract, they are no longer a small business and can't compete.

Although consideration of the definition of "inherently governmental" is not specifically on your agenda, I recommend you look at it. OMB recently issued a policy letter to attempt to clarify the definition of "inherently governmental." I would suggest that the current FAR [Federal Acquisition Regulation] definition, regulations, and policies that were in place prior to that are quite effective.

The new policy defines not only "inherently governmental" but functions that are closely associated with "inherently governmental" and functions that are "critical." Not that one can't define those, but what the net effect, I believe, will be unnecessary insourcing and, for the Government and the public, not necessarily the best value solution that comes from competition.

My submission has a little bit more on each of these. I would like to make just a few specific suggestions.

The midsized business "squeeze," as I am calling it: I suggest the panel explore ways of supporting midsized businesses through, for example, creating a new set-aside program; modifying the NAICS codes, the definitions—the various—the fairly Byzantine NAICS codes set that are in place today; or modifying the small-business size standard to encompass midsized businesses.

I would suggest the business that we are in, which is supporting Government agencies in a relatively close way—many of our employees work on Government facilities—is a good place to target for midsized businesses. Often, the agencies are needing more capacity, a broader set of technical skills, and strong program management capability, which one doesn't typically find in a small business. You find that typically in a large business, but you can also find it in a small. And where you have strict constraints on organi-

zational conflicts of interest, midsized companies can be quite effective at mitigating any concerns about organizational conflicts of interest.

On the subject of very large, multi-award, indefinite-delivery, indefinite-quantity contracts that are set aside for small, I recommend that that is a poor choice for small businesses and that the panel look for other types of contracts that more effectively capture the strength of small business: Their innovation, their specific unique charm, the people.

And then, lastly, I recommend you look at the new policy letter on "inherently governmental." And I think the best solution would be for something akin to the A–76 [OMB Circular No. A–76 on "Performance of Commercial Activities"] process, where the Government can truly determine what is the best value. As soon as we start defining "inherently governmental," "close to inherently," "slightly close to inherently governmental," we are into increasing the size of the Government staff—and not that you shouldn't. If it is the public trust that needs to be protected, if it is inherently governmental, it should be done by a Government employee. Anything else should be up for grabs as to whichever is the best value to the Government.

Thank you.

[The prepared statement of Mr. Smith can be found in the Appendix on page 49.]

Mr. SHUSTER. Thank you, Mr. Smith.

Ms. Jacobus.

STATEMENT OF HEIDI JACOBUS, CHAIRMAN AND CEO, CYBERNET SYSTEMS CORPORATION

Ms. JACOBUS. Mr. Chairman, Ranking Member Larsen, other members of the panel, thank you for the opportunity to speak to you today.

I have submitted my written statement for the record. That may——

Mr. SHUSTER. It is going to be in the record, your full statement. But I would ask you to summarize it, keep it to within 5 minutes or so.

Ms. JACOBUS. Thank you.

Mr. SHUSTER. Thank you.

Ms. JACOBUS. I am Heidi Jacobus. I am the founder, CEO, and majority stockholder of Cybernet Systems, a small business in Ann Arbor, Michigan.

Twenty years ago, I started Cybernet on the basis of a single Department of Defense SBIR contract. That is the Small Business Innovation Research program. And during the question period, please ask me any questions about the structure of SBIR, because I have 20 years of experience and know a lot about it.

I am an unlikely entrepreneur. I am an unlikely Department of Defense contractor. I was born to parents who didn't have any high school education. My mother was an immigrant from Germany and couldn't speak English when I was born. My father was a first-generation American. He dropped out of high school, joined the CCC [Civilian Conservation Corps], then the Army, and worked in factories.

They valued education, and I complied. I was very fortunate to have obtained a very good education by scholarships, work-study programs, and my parents' sacrifices, of course. I went to graduate school at the University of Illinois, Champaign-Urbana, where I studied computer science. I got my master's degree and worked for 3 more years towards my Ph.D.

Then I got married, moved to Texas, worked at Texas Instruments in the research lab, and had children, dropped out of my research for a while, and a few years later picked up my research again.

When I was at the university engineering library, I opened up a book, and the book was an RFP [request for proposal] from the Department of Defense, and there was my research topic in the SBIR book. DARPA [Defense Advanced Research Projects Agency] was asking for a proposal on something I had been working on for the last 9 months. So I was pretty excited, because I had a 40-page working paper on the topic. I shaved it down to 25 pages, submitted it as an SBIR. And a few months later, I got a phone call from a DARPA colonel who said it was the best proposal he had ever read.

So, I was up and running. I went in, I quit the university, I hung up a shingle, I moved my daughter into her brother's bedroom, and the first Cybernet was there.

Now, we had to deal with regulations, and, having a German mother, I had to deal with the rules of the contract. And so when I got a contract that said "FAR clause so-and-so, jewel ball bearing," I had to drive to a Federal library to find out what that meant, because I wasn't going to sign the contract asserting something about jewel ball bearings that I couldn't feasibly understand without the reference.

I didn't know what the word "overhead" meant. I was a technology person, I was an engineer—9 years of college, 5 years in computer science. I didn't know about business or business structure. So I figured it out. And SBIR is a beautiful program where small businesses can slowly take their technology and create a business structure. The guidelines are very clear. The initial contracts, the Phase I's, are very small. And the forms are easy to fill out. So, for overhead, we measured the square footage of my daughter's bedroom, divided it by our house square footage, and there was my overhead rate. So I learned by doing.

And now, 20 years later, I have 60 employees. We have 35 patents issued. We have SBIR equipment that comes, actually, from a Picatinny Arsenal SBIR and is now in Kuwait. It has been there 6 years, and it is still very productive, saves the Army hundreds of millions of dollars. A four-star general who has visited the project many times—he is now retired—said at an AUSA [Association of the United States Army] conference that our machine saved the Army $27 million in its first 4 months of operation. Six years later, you can multiply. That is an extremely good investment for the Army to have made in that Picatinny Arsenal SBIR that, over some years, turned into this wonderful piece of equipment in the field called ATACS [Automated Tactical Ammunition Classification System], which is an ammunition sorter.

I am nearly out of time, so I would like to stop.

Mr. SHUSTER. We will have plenty of time to ask you some questions.

Ms. JACOBUS. Thank you.

[The prepared statement of Ms. Jacobus can be found in the Appendix on page 65.]

Mr. SHUSTER. Very interesting, the founding of your business.

One question I have: Isn't Cybernet—isn't that the company on "Terminator"?

Ms. JACOBUS. No. It is——

Mr. SHUSTER. Just want to clarify that——

Ms. JACOBUS. I was actually on "Squawk Box" last year in August before Mark Haines passed away, unfortunately, and Mark Haines asked me the same question. And I said, "Mr. Haines, we are ahead of 'Terminator.' Cybernet was formed a year before the 'Terminator' movie came out."

And, actually, at the time, Cybernet had a Humvee, borrowed from the Marine Corps Arsenal in Detroit, that we were retrofitting with robotic controls.

Mr. SHUSTER. Really?

Ms. JACOBUS. So I think we were a little bit ahead of the curve.

Mr. SHUSTER. I hope you got some money since they stole the name of your company and put it in the movie. But, anyway, thank you again for your testimony.

Ms. JACOBUS. Thank you.

Mr. SHUSTER. We are going to go through questions. I am going to start with a couple of questions.

First, Mr. Hodgkins, you talked about the burdens and you said "risk." I don't know if you really touched on the "risk" part, of why it is risky. Can you go through some of the things you see out there that are risky dealing with the Department of Defense, specifics of why you consider it risk? Because a lot of people would consider doing business with the Federal Government not very risky. Very burdensome, but——

Mr. HODGKINS. Sure. I touched on a few that businesses do see as risks. For example, the potential loss or partial loss of intellectual property because they do business with the Government. Many companies will walk away from the business on that basis alone. And the changes that are being proposed simply blur the lines. If you have a small business, as Ms. Jacobus described, some of those things can be impenetrable or very difficult to determine. And the idea that you would potentially forfeit your intellectual property by doing business with the Government makes many companies see that as an insurmountable risk.

Another example would be in the disclosures that I talked about. Many of the things that the Government asks companies to disclose, either as part of the ordinary acquisition regulation reporting burden or as some of the contractor databases that we have built, things like that, some companies see that data as propriety, or certainly bordering on it. And the disclosure of what they team to be the secret sauce of the success of their company on a public Web site or in some form of a database that their competitors may see it, they see that as a risk that is just too big to overcome. And so they choose not to face those challenges, and face the commercial market instead.

Mr. SHUSTER. Intellectual property rights, is that something you are talking about?

Mr. HODGKINS. Yes. Correct. I mean, you wouldn't want to develop a great software program but when the Government wants to buy it, they want me to modify it, using their money, to include some encryption capability, for example.

Mr. SHUSTER. Right.

Mr. HODGKINS. It is our interpretation of the proposals that are on the table that the Government would own part or more, a significant part, of that software and the intellectual property involved in it. And companies look at those reasonable conclusions and say, it is just too risky; I don't want to give up my intellectual property and the products that I have developed.

Mr. SHUSTER. Right. And your association, you represent small companies, medium-sized, and large?

Mr. HODGKINS. Absolutely.

Mr. SHUSTER. And do you find—some of these things are across the board, they affect. But focus on those small and medium-sized. Do you find it a much greater problem for your members that are smaller members, like Mr. Smith or Ms. Jacobus?

Mr. HODGKINS. Absolutely. The small or midsized companies, usually, you know, they have a collection of patents, as was noted, that to lose their rights in those patents would mean the company is gone.

The larger companies face similar challenges and certainly don't want to lose the intellectual property they have developed, but their business with the Government is more diverse. It covers more of the sectors of the defense market and the industrial base, and so they are better able to deal with those challenges. They also have more sophisticated administrative capabilities and legal staffs that can address and, you know, interpret those things for them.

Mr. SHUSTER. Thank you.

And, Ms. Jacobus, you said you had a lot of experience with the SBIR program.

Ms. JACOBUS. Yes, indeed.

Mr. SHUSTER. Can you tell us some of the hurdles you face and some of the things you see, as a small-business owner, that we could look at improving the program to make it easier for smaller companies?

Ms. JACOBUS. Right. Well, stemming off of Mr. Hodgkins' statement about the intellectual property, SBIR is an extremely good balance to the intellectual property program. Under SBIR, we have data rights. And it is balanced by the fact that we, as technology companies doing very special things for the Defense Department, we are overkill for the commercial market. So the machines we build would not be attractive to some factory automation, because factory automation is really easy compared to what we do in the field in Kuwait.

So we have to have a good relationship with our Government customer. And I think, under SBIR, the intellectual property system has worked very well for 30 years now, and——

Mr. SHUSTER. Good.

Ms. JACOBUS [continuing]. I hope it continues.

But one of the biggest challenges for SBIR companies is that the technology we develop is new technology. And so, in the military, there is a metric called technology readiness level, TRL, and it defines what a technology readiness level is. If something is on a piece of paper, it is 1. And if something is, you know, shrink-wrapped, off-the-shelf, tested, it is 10.

The SBIR Phase I's and Phase II's, because what we are doing is new, the only reason we got an SBIR is that product or system could not have been purchased commercially. Everything innovative is new. And that is why SBIR companies get so many patents. We are automatically doing something new.

SBIR funding takes us to Phase IV, TRL level IV. So we are not over the hump yet. What is needed for V, VI, and VII is testing and evaluation. And in the case of a Navy product we have developed, we had to take the product out to sea trial, which involves sending two engineers on a ship with Marines and using it out at sea. It is expensive. We had to drop it in saltwater, shake it. And you can imagine the rigor that has to be gone through for a military product compared to something that is a disposable, something at a big-box store.

So the conundrum for small businesses is that there is literally no funding source anyplace for the test and evaluation.

Now, there is something new on the horizon, the RIF program, the Rapid Innovation Fund. And that has promised that it can serve as a competitive way to try to get some test and evaluation money so that you can bridge TRL levels V, VI, VII, and then get to the end, where you can literally field it and sell it to the military. That is a good goal. But the RIF program is very small, it is not yet activated, it is only partially announced, and it is really uncertain how many projects it will be able to fund.

Mr. SHUSTER. Right. And I am not even familiar with the RIF program

Mr. SHUSTER. We will get into that. I am going to—my time has expired. We are going to stay on the 5-minute clock, but we can do a couple rounds of questions because I think we have plenty of time.

So, with that, I will yield to Mr. Larsen for a question.

Mr. LARSEN. Thanks.

Mr. Hodgkins, with regards to your testimony, on page 6 I think it is, you said, "TechAmerica members are on record supporting a change in policy to require that sourcing for acquisitions of information-technology hardware, software, and services are limited to original manufacturers or suppliers who are authorized by those manufacturers."

Can you go into a little more detail on why that is and why that would be helpful?

Mr. HODGKINS. Well, we believe it is a policy challenge the Government faces where it potentially conflicts with small-business incentive programs that you have, particularly when you look at things like the GSA [General Services Administration] schedules and acquiring products those people may be reselling.

The problem the Government is faced with—and, certainly, as members of this committee, you have probably had briefings that I don't have access to regarding the challenges with counterfeits

and other malicious products that are successfully or unsuccessfully inserted in the DOD supply chain. There are a number of legislative and regulatory initiatives that are attempting to address that. And this committee has generated a couple of those.

The problem we see is that the Government—and when you couple it with the "lowest price, technically acceptable" preference I discussed, the acquisition community's behavior is to go out and find "what can I get at the lowest price" versus "what can I get that I know actually came from that vendor, and I have some degree of assurance that there is not a counterfeit chip in it or some malicious code in the firmware that would give access to someone else."

So we have supported the concept that, for purposes—certainly, for critical systems like we might find at DOD, the Government should look at a policy that says, we are only going to buy from trusted sources like the original equipment manufacturer, people they have authorized to resell their products. And there are a few other programs where vendors can go through and be certified as a trusted source.

Mr. LARSEN. Okay.

Can you explain, in your testimony, on page 2—or, maybe not explain—provide an opinion about why, in TechAmerica's view, we drifted away from the Clinger-Cohen reforms, focusing on off-the-shelf, commercial technologies, into what you are describing today?

Mr. HODGKINS. I think there are a lot of reasons.

Some of the issues that I also discussed drive us—reporting requirements, for example. In a commercial transaction, I wouldn't have the kind of reporting requirements I would have if I wanted to do business with the Government. Much of that is understandable; the Government has a different set of shareholders, if you will, and so there are different things we have to disclose if we are doing business with the Government.

But the idea that I am buying generally commodity items, now, even, we have to make disclosures about what is my price, how did I arrive at that price. That is a perfect example. Generally speaking, when I have a commercial item acquisition, if I go out and buy something that is offered out in the market and I buy it for whatever the price it is offered for in the market, then it is automatically presumed I got a fair price, because the market has set that price.

We have seen a drive at DOD and other agencies to, even though it is a commercial item, we want you to now share with me information about how you built that price. What are your personnel rates? What are you are compensation package components? What are the other things that you are including in that price? Which gets us away from the tenet of the Clinger-Cohen era, was that if I buy a commercial product from the commercial marketplace, I am assumed to have achieved a fair and reasonable price.

Mr. LARSEN. How would you address that, say, in a situation like with Ms. Jacobus, where the technology of the product maybe doesn't have the commercial application as clearly as another product?

Mr. HODGKINS. Well, I think her example was a good one. I would point to, actually, the reverse as a good model. And we see

this a lot, whether we are dealing with innovative research all the way up to the largest integrations of weapons systems, where you have a lot of commercial products are now—the preference for many of the functionalities and capabilities in the weapons systems or in the research that we may be deploying.

So you look at data capabilities for deployed soldiers. We are looking at commercially available handheld devices and how do we get the data to them on an iPhone or an Android phone. When you look at a weapons platform on aircraft, you are probably assimilating commercially available guidance systems or radar systems, communications systems. Even some of the sensor systems are now commercially available. And so you have an amalgamation of those.

And it is the practices and policies around the Government-unique elements of a weapons system that are now bleeding over into incorporating those commercial things. And the benefit those commercial things brings is that the private sector paid for all that innovation and research and you are getting the benefit of commercially available products at a price that is set by the commercial market, not a price—if you had to build those radar systems or com systems or guidance systems from scratch based on Government specs, it would be far more costly than the same systems you could get at a commercial variant.

Mr. LARSEN. Uh-huh.

Mr. Smith, can you explain a little bit more, on page 1 of your testimony, the last couple of lines of the second-to-last paragraph there, the concern that the small companies that win the ultra-large set-asides must focus their resources on strong proposal and program management capabilities rather than their unique skill sets and people? Could you explain to me why that is a problem?

Mr. SMITH. Over the last several years, as we have grown out of the ability to compete for contracts that have been set aside, we have necessarily joined teams of other companies, many of whom are small businesses who are primes.

We have seen very innovative companies. Again, we are service providers; we are not creating intellectual property except associated with the delivery of service. We have seen these companies have to hire program managers, people from larger firms. And, frequently, as contracts are set aside for small, the incumbent larger firms are offering mentorship and assistance and personnel to come in to help them manage what will be large contracts for them.

And the larger service contracts do have a fairly large regulatory burden associated with them. You would have a fiduciary responsibility to make sure that the service provided is actually provided and is of the quality that you are expecting out of your own company. And when you build larger teams, as opposed to nurture a particular small business, the skill set is different.

I think it is bad because you are losing the up-close innovation, the agility of smaller firms. You are turning smaller firms, who don't have even the strengths of larger firms, into management organizations rather than innovative organizations.

Mr. LARSEN. Thank you.

Mr. SHUSTER. Mr. Runyan.

Mr. RUNYAN. Thank you, Chairman.

And thank all of you for being here.

It is kind of a general question for all of you, if you want to. I think we are kind of touching on it. But, as a Federal Government, do you feel we have a coherent industrial policy to actually, look at our national security?

Ms. JACOBUS. No.

Mr. RUNYAN. No?

Ms. JACOBUS. No. And I think there are lots of studies that have been done that say that we don't value our defense industrial base like other countries do.

For example, there was a procurement for the newest, greatest ground vehicle, called the Ground Combat Vehicle. The solicitation came out 2 years ago. I was at the meeting of AUSA in Fort Lauderdale when it came out, 11 o'clock on a Thursday, and everybody in the room jumped up, went out and got their cell phones, downloaded the proposal. It was so eagerly anticipated. Nine months later, the Government pulled the contract, the RFP. It just vaporized. It was gone. So, for 9 months, the defense industry of this country had been spending enormous amounts of their brain power working on this proposal to design and build the next class of ground vehicles.

Well, that wasn't the end of it. We had teamed with a large company on that proposal. So the large company was spending, I would guess, tens of millions of dollars. We were spending hundreds of thousands of dollars. Two months later, the next new GCV [Ground Combat Vehicle] instantiation comes out, the new proposal. And it is not that different than the first one, but it is different enough that we work for another 9 months, everyone spending lots of money, lots of time.

One prime contractor at a conference in Warren, Michigan, said that 30 percent of their engineering time had been spent addressing, writing to this RFP. Now, we have a limited amount of scientists and engineers in this country. If a massive number are writing to RFPs that get pulled and get turned into nothing or, as GCV worked out, the three selections that were on the board turned into two, there is a lot of work that went into designing and doing something.

And that is more and more for the large companies. Before you do something new, you have to build it and show it and then sell it. It is not really a design contract. So we are losing the competition and innovation for new systems. And I think that is a policy issue.

Mr. RUNYAN. Thank you.

Mr. SMITH. I would say the principal dysfunction is the adversarial relationship that is evolving between companies who do business for the Government and the Government. I think there is a fiduciary responsibility that the Government employees have to live up to. All of the disclosures associated with doing business with the Government, for us, are associated with the fact that there is a lack of trust.

Ms. JACOBUS. Uh-huh.

Mr. SMITH. And there has to be a better environment, where—you know, some baseline information needs to be disclosed. Service providers for Government, we are probably the most highly regulated industry in the country. And there is not one fact about me,

my finances, the company's finances that isn't known and soon won't be disclosed publicly. And I think that is all based on a lack of trust between the companies and the Government.

Mr. RUNYAN. Thank you.

Mr. Smith, just talking about growing from small, medium, to a large company, have you or anyone you know ever thought twice about getting into a contract, with fear of climbing that ladder too fast?

Mr. SMITH. That thought never crossed my mind. I know there are people with whom we do business that are small, a company that is 50 people, about the size of Cybernet, that because of the regulatory environment, there is some 50-person threshold, they won't hire more than 50 people.

But I think, typically, company owners don't think that way. They just grow into whatever they grow into. And then, all of a sudden, you look back and you can't do what you did before.

Mr. RUNYAN. And it looks like once you take on the big contract, like you said, 5, 10 years down the road, I am not at a place to where I can get any of the small business, but I am not big enough to compete at that higher level.

Mr. SMITH. Right. The midsized companies are a very interesting and dicey place to be. We just happen to be there now at a time when the budgets are constrained, and, you know, the environment is not exactly conducive to where we are right now. But I am really positive. I actually believe small and midsized companies have a lot to contribute to this Nation. And I encourage you to think about not only small but midsized companies.

Mr. RUNYAN. Chairman, my time has expired. I yield back.

Mr. SHUSTER. Thank you.

Just to clarify, you are considered a small business, not because of the number, because 500 is one of the metrics. How much money and what is the dollar figure that puts you over the top?

Mr. SMITH. In many procurements, surprisingly, it is either $4.5 million or $7 million.

Mr. SMITH. So we are far over it.

Mr. SHUSTER. Right. And 250 employees.

Mr. SMITH. By definition, if you have technical people—our staff is technical, our staff is administrative. But, by definition, if you have that many people, you are operating revenues, unless you are losing money, that are more than the $7 million.

The service-disabled, veteran-owned program that the Veterans Department has just begun a certification process for is $7 million. So even though we are a service-disabled, veteran-owned company, we are not small by the VA's [U.S. Department of Veterans Affairs] definition.

Mr. SHUSTER. Right. Okay, thank you.

Ms. Hanabusa.

Ms. HANABUSA. Thank you, Mr. Chair.

Let me begin with Mr. Hodgkins. I am curious about your description throughout your testimony about your members. And, also, in your disclosure, you don't seem to have any contracts. So can you tell me who your members are and how you come to be able to testify about the problems you are facing with military contracts?

Mr. HODGKINS. Sure. My members are manufacturers and then distributors and resellers and integrators of information technology hardware, software, and then the services necessary to put those things together, build those things, and then operate those things. They also include companies that are working around those others.

They range from the largest integrators selling the largest IT [information technology] systems to the Federal Government down to one-, two-, three-man shops in Silicon Valley writing software—very unique, very specific analytic software that might be used in the intelligence community, or they may be selling commercial products like laptops or software that run those laptops.

Ms. HANABUSA. So what I am trying to understand is, as you come here and you testify and you submit testimony to us, I want to know, what is it that you do for your members that gives you the insight to come here and to tell us about the shortfalls of the system?

Mr. HODGKINS. Sure. Well, we are a trade association, so we represent the corporations. Those corporations, hundreds of the members of our total member base, are Government contractors. And we have centers of focus within the trade association that look at the issues they raise with us of being of concern, and they range from regulatory, legislative, and administrative initiatives.

Ms. HANABUSA. So this is really something that you are garnering from what they have told you as their representative, and——

Mr. HODGKINS. Yes.

Ms. HANABUSA [continuing]. That is what you are relaying to us?

Mr. HODGKINS. And then my interactions on their behalf in those arenas.

Ms. HANABUSA. But you, personally, do not have any experience in terms of actually submitting a proposal like Ms. Jacobus?

Mr. HODGKINS. No. I work for a trade association, and we don't—we are not Government contractors.

Ms. HANABUSA. I just wanted to be clear as to what your format was.

Mr. HODGKINS. Sure.

Ms. HANABUSA. And, Mr. Smith, one of the things that you said that was very interesting is you made a distinction that you are a service provider and you are not, like, a creator. So I believe Ms. Jacobus is sort of in a different category from the two of you.

So when you say you are a service provider, and you were complaining about the 51 percent rule in particular, what exactly do you mean when you say you are a service provider and not an intellectual property creator?

Mr. SMITH. We do generate, create intellectual property associated with services.

And, again, if we are—I will take systems engineering as a service. I am an electronic engineer. I also went to school in Pennsylvania; I am a Carnegie Tech grad. But we provide advice on an hourly, time-and-materials basis, often, to agencies that do R&D [Research and Development] management: DARPA, the Office of Naval Research, organizations in other departments, as well, that do research. They seek support in making sure they are up on the right technologies. They seek support in evaluating the progress of

an R&D endeavor. They seek support for judging whether a particular R&D provider has satisfactorily met the terms and conditions of a contract from a technical point of view.

So we have engineers and scientists in specific disciplines that change over time because the areas of interests of different agencies change over time.

Ms. HANABUSA. Can you tell me what kind of contract you would be bidding for with the Government?

Mr. SMITH. Well, the term of art—the two terms of art that we use are "SETA" and "A&AS."

"SETA" is systems engineering and technical assistance contracts. Many acquisition organizations in the services or in OSD [Office of the Secretary of Defense] or defense agencies have competitions to seek companies to provide systems engineering. So we will help them from a technical point of view or—again, we run meetings. We actually have a very strong capability in conference coordination. So we help bring together and facilitate meetings of technical folks, with the end objective of the particular meeting to bring diverse technologies together and come up with a common vision for how to proceed forward or a common approach to a particular problem. So, SETA is one nature of a contract we go after.

A&AS is the other, advisory and assistance services contracts. And these can range from studies; what is the balance of the requirements versus technological capabilities in a particular area of emphasis by an agency of the Department of Defense? What are the trends? We often look at worldwide technology trends. What other countries are doing research in a particular area of interest to the Department of Defense, and how does our research stack up against their research?

Program managers—DARPA is a somewhat unique agency in that they bring in program managers for a relatively short period of time, 4 to 6 years. So we help program managers in the process of learning about acquisitions, we help program managers in the process of creating programs that are good and executing and monitoring programs that are good.

Ms. HANABUSA. Thank you.

Thank you, Mr. Chair.

Mr. SHUSTER. Thank you.

I am going to next turn to Mr. West, but before I do, since I have a core of the committee here, we are looking at having a field hearing—I should have said this in the beginning—October the 7th, if we get five Members. Votes are on a Thursday night, and then Friday morning flying out to Quad Cities, Rock Island. We will get mil air and be back the same day. So I just wanted to alert everybody to that if your schedule so fits. I know that Mr. West has a very important speaking engagement in Pennsylvania on Thursday the 6th.

Mr. WEST. At your request.

Mr. SHUSTER. But, with that—again, I just wanted to bring it to Members' attention so you heard it firsthand.

And, with that, I will turn to Mr. West.

Mr. WEST. Thank you, Mr. Chairman and also Mr. Ranking Member.

I want to look at this from a different perspective because, as you said, I spent 22 years in the military. So, you know, I remember going out as a battalion commander in 2003 in Iraq and a lot of things that we did not have and wish we did have.

My question is, you know, as we start to look at rapid force initiatives and off-the-shelf type of technologies and innovations, there are a lot of documents that get produced, you know, lessons learned, things of that nature. Do you feel that you have a good relationship with the military as far as getting a lot of those lessons-learned documents being tied in with the rapid force initiatives that we have I know definitely in the Army and maybe in the Marine Corps?

And then, also, do you have a time with the combatant command so that—you know, I was there at Fort Lauderdale when that happened. You know, you get these blasts on the email, you kind of get an understanding of, you know, some of the needs and trends that are happening. Instead of that long procurement system, maybe we can look at some off-the-shelf type of technologies that can be rapidly developed. Is that type of relationship out there?

Ms. JACOBUS. It is not easy for a small business that has one or two locations to be at every military base so that we know when people come out, you know, the door and go to the coffee shop that we can talk to them about what their problems are. It is even harder for us to get on a base and talk to a group of operators.

And, really, the whole issue with SBIR is that we create magnificent technology at the request of the Army. They have put those RFPs.

Mr. WEST. Yeah, I understand.

Ms. JACOBUS. They put the requests in because they need something, and we have technology that can address their need. But they don't know the whole range of technologies that can be applied, and we don't know what is the issue in the field.

Mr. WEST. The demand versus the supply.

Ms. JACOBUS. Right. So having a good relationship with a customer—and in the SBIR case that we had from Picatinny Arsenal, we had good relationships at Picatinny. We were in the labs, we were picking up mortars, we were using them for test objects. And then when we went to design the ATACS machine—and we designed it in 90 days. That is essentially off-the-shelf.

Mr. WEST. Uh-huh.

Ms. JACOBUS [continuing]. Even though it is brand-new technology, because it takes 90 days to do an NDA [non-disclosure agreement] at a large company.

So the rapid response capabilities of the agile small businesses really should not be overlooked. So when soldiers have a problem, we should know about it and brainstorm about it and try to help.

I gave a talk at the Army War College on small-business acquisition. I used the same example of the machine. And after my talk, the group of 300 06s, typically, came up to me and said, I have never heard of a contractor who was good; you know, our feelings about contractors is that they are all bad people who don't give us, you know, water bottles or whatever. They were shocked that here was something that worked the way it was supposed to work.

Now, the SBIR that turned into the ATACS was a fluke. It wasn't planned. We had no idea the problem existed in the field. But because we had a little blurb that the SBIR puts on the Web—and we don't mind having those abstracts public—they found us. And we got this phone call from a sergeant who said, we have a problem; can you solve it? And we did. So if there was more of looking at what the small-business capabilities are and for us to be able to understand and bridge, it would be great.

But we have no money for the transition. We have R&D, and then somehow it is procured with procurement funds. Big companies have gigantic budgets in their cost structure. I talked about overhead. But they have something called IR&D, internal research and development. So if they make a $3 billion thing, they get a percentage that is audited for the dollar amount that says they can use so much of their cost structure for internal research and development. They can do anything they want with it, including ruggedizing equipment, getting it ready to be purchased.

We small businesses have none of that. Historically, it is just a fact, many of those transitions have been handled by congressional interest money, because we had customers who were military who needed something and had no budget for it. When something is new technology, it outpaces the financial structure, the POM [Program Objective Memorandum], the description of what pays for what.

And I will give you a really poignant example of what happened with the ammunition machine. So we got it done, we wanted to make more, and it turned out that there was no budget for it. But what we were replacing was a hundred people sitting in a warehouse doing, very expensively, the task. But the money was a different color. It was Operation and Maintenance Army money, OMA dollars. And there was no way heaven and earth could move that money to be able to purchase a machine for us that would do it in, you know, whatever percentage of the time and money—couldn't be done. It took 2 extra years before we were able to get language in the POM cycle where our machine is now recognized.

So the small advanced businesses are absolutely in a lurch when we have something new that hasn't been described, there is no funding for it. Now we have no congressional interest funding to help us, because it is very transparent. We have done something, competed it, won contracts, built something. We have an Army customer who needs something who will answer the phone and say, "Yes, indeed, I have seen the prototype. We really need it." And that is gone. That is gone. And so, I really fear for all that technology that has been developed and may be on the shelf.

Mr. WEST. My time is up, Mr. Chairman. I yield back.

Mr. SHUSTER. Thank you.

And just so I am clear on that, you have a new technology which would have replaced a hundred people working?

Ms. JACOBUS. Yes.

Mr. SHUSTER. And your technology would have done it by—automated it, and it couldn't get the money?

Ms. JACOBUS. Absolutely not.

Mr. SHUSTER. Okay. Thank you.

With that, Ms. Sutton.

Ms. SUTTON. Thank you very much, Mr. Chairman.

Mr. SHUSTER. Your mic.

Ms. SUTTON. Thank you very much.

And thank you to the witnesses.

Just a point of clarification. Ms. Jacobus, when you talk about congressional interest money, are you talking about earmarks?

Ms. JACOBUS. I am talking—we call them plus-ups.

Mr. SHUSTER. We call them earmarks.

Ms. SUTTON. We call plus-ups, earmarks.

Ms. JACOBUS [continuing]. It is not the money that was budgeted someplace for something.

Mr. SHUSTER. We have to get a new name.

Ms. SUTTON. All right.

Ms. JACOBUS. That is the name.

Ms. SUTTON. I understand. I just want to make sure I am——

Ms. JACOBUS. But it has been a critical part of small businesses' being able to put things in the field. I mean, it is just not realistic for us to do all that test and evaluation ourselves.

Ms. SUTTON. I understand. I appreciate that.

Okay. If we could just go back for a moment to another example I think that you speak of on page 3, because I think it really laid out the case pretty well. I am going to just sort of paraphrase here, and you tell me if this is right.

Your testimony reads, "The large companies that desire the forward-looking work can apply massive internal research and development funds (IR&D or 'IRAD') which are for the most part also repurposed federally funds (allocated to the prime by overhead allowable funds that come with their large program work like the F–22 or Ground Combat Vehicle).

And you also speak of the fact that they have marketing people everywhere and inevitably are connected, right? They are connected and know more about the project than you can ever know from openly published information sources. "Even in the case of a small 'starter' contract of several hundred thousand dollars, a larger prime can apply 'loss-leader' funds and 'special knowledge pertaining to the bid' to its bid-and-proposal-funded effort. The result is the smaller businesses won't win, even when they are lower in cost and may have a technical edge."

And at the end of that page, you say, "As I understand it, what is done with that IR&D pool is not required to be delivered as part of a contract. Effectively, the Government provides pure investment money without strings to primes."

Ms. JACOBUS. That is what it seems.

Ms. SUTTON. Okay.

Would you all agree with that?

Mr. SMITH. We actually have, as a service provider, have an IR&D program. So, actually, it is a budgeting issue. Bid-and-proposal money and IR&D are classified in a similar way in our accounting system and the way you account for costs. And if there is not a huge flurry of proposals that you have to do that particular year, you can take time to do innovation.

And I think it scales totally with the amount of money that is coming in. If you are a huge company, you have a larger pool to draw from. It is discretionary. It is their rules. In the FAR associ-

ated with IR&D, it has to be relevant to the mission of the agencies for whom you are working. So it is not without regulation, but it is possible to do some as part of your indirect cost structure in the course of normal business.

Ms. SUTTON. And, Ms. Jacobus, it gives the big guys more opportunity to do flashy presentations?

Ms. JACOBUS. Right. When it says "full and open competition," we sometimes gathered up resources and put together these plain paper proposals, only to be faced with somebody who has made a movie with Hollywood actors in it showing the product in use. That is a true example. So you can only imagine.

We compete in SBIR with companies 500 or under. So that is a pretty big range, 1 to 500. And we compete very fiercely for this. But the reason SBIR was put into place was that someone, 30 years ago, smartly and bravely recognized that we would never have a chance to get these big R&D contracts. And the data showed close to 50 percent of scientists and engineers worked for small businesses. Small businesses, as a total, get 4 percent of R&D. That means there is a lot of people who are trained scientists, trained university graduates who are not using their brains to support the problems of the military.

Ms. SUTTON. And, Ms. Jacobus, somewhere in your testimony I believe I read something that led me to believe that, in some cases, those who are actually winning these contracts are developing technology that actually already exists out there, but they do it this way because then they can own it. Is that correct?

Ms. JACOBUS. We believe that. We believe that is true.

Ms. SUTTON. Okay. Thank you.

Mr. SHUSTER. We are going to go to a second round of questions, and I would like to just shorten them to 3 minutes. And if anybody—we will keep going as long as anybody wants.

First, I just want to know if all of you agree, the sense that Mr. Smith brought out there, the trust. There doesn't seem to be—the Department of Defense is looking at you like, "You guys are going to get us, but we are not going to let you get us." And it seems to me, as being a small-business owner myself in my past, my suppliers were my partners. I mean, I needed them to be. And I trusted them until they gave me reason not to trust them.

So, do all of you agree, do you get that sense that your association, your members are coming in there saying, they are looking at us like we are committing a crime before we even committed—do you all agree with that? Is there an agreement?

Ms. Jacobus, yeah.

Ms. JACOBUS. Sometimes we have to sign disclosures that are very complicated pieces of paper.

Mr. SHUSTER. Right.

Ms. JACOBUS. For example, an unfunded requirement that we have as an SBIR company is that, 10 years later, we are supposed to report the commercialization and impact of that technology. And that means we have to go to the open literature and see what other public companies—who don't, of course, disclose the details, and we have to make a best estimate of what the impact of our early innovation was. That form sets criminal penalties if you get it wrong.

Mr. SHUSTER. Right. I have seen those.

And, Mr. Smith, being in a midsized company, there are some out there that argue that we need to change the sizes and things like that to maybe smaller business or bigger. I mean, these things are based on numbers from probably 20 years ago when they first laid them out. And there is the other alternative, is, as you go from a small business to a midsized business, maybe you reduce the protections, you reduce the set-asides, so that small business can grow.

Which of those would you think is a better route to go?

Mr. SMITH. I totally understand your question. I actually would argue that you should relook at the NAICS codes and the relatively Byzantine way that we categorize small businesses. And I know the Small Business Administration does that routinely.

Mr. SHUSTER. Right. That is not this committee's jurisdiction.

Mr. SMITH. Right. Right.

Mr. SHUSTER. But I just wanted your input.

Mr. SMITH. So I think, somehow, set-asides that are designed from where the Government thinks or you think that midsized businesses contribute. If midsized businesses—we necessarily now are going to compete for larger contracts.

Mr. SHUSTER. So your preference would be to look at and say, let's resize——

Mr. SMITH. Yes.

Mr. SHUSTER [continuing]. Our metrics——

Mr. SMITH. Correct. Correct.

Mr. SHUSTER [continuing]. And, you know, if it is 600 jobs or $17 million. Okay. All right.

Mr. SMITH. And one of the other interesting things we found with contracting offices, not just Department of Defense but others, is there is a tendency to pick the size standard that is the smallest that the contracting office believes will satisfy. And that has led, for me, to situations where we can't compete.

Again, I come back to a $5 billion procurement set-aside for $4 million companies. The numbers don't compute, in my mind.

Mr. SHUSTER. Thank you very much.

With that, Mr. Larsen.

Mr. LARSEN. Thank you.

Mr. Hodgkins, a couple of solutions, if you can help us out. You mentioned some of the problems. One is the forfeit of IP [intellectual property] in order to do business with DOD. We actually heard something similar from a business in my district that is doing some work for one of the services, writing up the specs so they can go out and compete for the job that the military wants them to do for them, meanwhile just basically opening up their books to everybody else who now wants to compete.

What is the alternative, or what is the solution to that?

Mr. HODGKINS. Well, we have advocated a couple of alternatives to the way the Government and DOD approaches contracting. We think, as Mr. West noted, that we can be more effective in a two-way communication: Knowing the problems in the field and then having companies, whether they are large or small, understand those problems and identify solutions to those problems.

That communication is not as effective as it could be. And, as Mr. West probably experienced in the service, when we translate those

things into requirements and it gets handed off to a different community, there is frequently a disconnect completely.

So we would propose that the Government look at more agile activities, certainly in the technology arena, that they look at doing things in a more rapid fashion, in a more agile fashion, in smaller increments, and you build capabilities in incremental fashions.

For the contracting process itself, we think that there are ways that the Government can share—and there are other models that are used; British Columbia has an example as one—where the problem is provided to the community, the community responds, and pretty quickly the Government reviews those initial reactions, and they down-select to two or three companies they want to work with that they think actually offer something that they can achieve and they can afford.

So there are models out there where you can more rapidly get to the solution; you don't expose.

And the lead-time issue, of course, is another one, where you are left out there trying to support, in the case of a small or midsized business, a maybe longer lead time than you have capital for. You are expected to hire people and keep that team in place while the Government makes these decisions, but you may have no income from that program yet. And that becomes very difficult.

So, trying to do things more rapidly, in a more agile fashion, in a more incremental fashion. And the funding issue is also important that I raised, because if we have a 3-plus-year process of identifying what I want and then getting the money for it, that means that those companies are left hanging and the combatant commands are not able to deploy the technologies as quickly as they would like. So it is a combination of a number of things I have touched on that I think could improve the process.

Mr. LARSEN. Great. Thank you. If you could get us some more detail on that question in your response in writing, I would appreciate it.

Mr. HODGKINS. Certainly.

[The information referred to can be found in the Appendix on page 99.]

Mr. LARSEN. Thanks a lot.

Mr. SHUSTER. Mr. Runyan.

Mr. RUNYAN. Thank you, Mr. Chairman.

Ms. Jacobus, you talk about the SBIR getting you to level IV. Can you give us, in your scenario, the hurdles that you had to jump to get to the next level, just so the panel can have an idea of what we have to go through?

Ms. JACOBUS. Well, one of the reasons the ATACS ammunition machine worked was that there was a crisis over in Kuwait. It was not an important or regular problem for an operator. It was a mountain of ammunition that was being backed up, with the supply chain clogged as well. So it was an urgent problem, and I think people were willing to work with me. So we got some swept-up money to start the first machine. And we put a mod on an active SBIR at Picatinny Arsenal to do it.

But then when the new money came in to build it, I am sorry Mr. Schilling from Rock Island isn't here, but the people at Rock Island do essentially no R&D, zero. So they didn't even know how

SBIR worked. And, luckily, with lots of phone calls, I found a gentleman at Picatinny who was able to take over the procurement, to put us on contract for that.

And I think it was a special case because of the urgency, because we were able to put it in the field. We tested it along the way. But the Army had a safety feature, in that they had a full-time quality-control person, a QUASAS [Quality Assurance Specialist Ammunition Specialist], it is called, operator with us at the machine. So we actually did have, you know, doctrine of following the inspector being there.

Since then, we have gone through the, you know, millions of rounds of testing and done what, in the normal process, would have been done before we put it in the field. So it really is a great example of how quickly things can be done if people are motivated and they need it. And I am just really sorry that there must be hundreds of other companies out there that have solutions to problems, who really don't have the way to transition them into the field.

But for normal things, that lack of TRL-level test and evaluation money is a gigantic barrier for small businesses—gigantic.

Mr. RUNYAN. Thank you, Chairman. Yield back.

Mr. SHUSTER. Thank you very much.

Ms. Hanabusa for questions.

Ms. HANABUSA. Thank you, Mr. Chairman.

Maybe this question is for Mr. Hodgkins. We have heard recently the whole concept about the fact that the DOD is not going to let contract bundling take place. Can you tell me how contract bundling has hurt the small businesses?

Mr. HODGKINS. Well, contract bundling has been a practice that—the intent is to move together and buy, as the Government is trying to do in a number of areas, in bulk things that are related.

What has come out of it, and I would identify as one of the conflicts in our socioeconomic policies, is that when you bundle things, as Mr. Smith noted, sometimes the job gets too big for a small business. And so—or they are moved into performing some unnatural role that they didn't start the small business to do.

So I think the bundling practice has pluses and minuses. What we have to figure out is the balance on how to do that in a way that we get efficiencies of scale for acquisition for the Government, perhaps for commodity items, but find ways for small businesses to compete in those.

Ms. HANABUSA. Mr. Smith, do you want to add anything on that?

Mr. SMITH. No. I think we live with it as a fact of life. And I actually believe, with the budget constraints we are likely to see in the next 10 years, there will be more of it.

And the only thing I would seek your thoughts on is how to allow for some of the procurements to be set-asides in ways that are logical for small and midsized companies to compete for. There is a lot of value—the personal touch of a small business or the personal touch of a midsized business can lead to a building of trust that is, I think, healthy, and the ebb and flow, arm's-length relationship between companies and the Government. The larger the contracts, the more fiduciary responsibility, the more distrust, the more regulation.

Ms. HANABUSA. So you actually feel that bundling has a role in the future as we start to cut the budget. You think that that is something that should be kept.

Mr. SMITH. I think it is a fact of life. I don't know if it should be kept. It is efficient, from the Government's point of view. As the budget is cut, they are going to have fewer people to acquire on the acquisition side. That means fewer contracts, which means each of the individual contracts are bigger.

I think it is not preferable. I think more defined contracts, smaller contracts are preferable, from the Government's interest point of view.

Ms. HANABUSA. Thank you.

Thank you, Mr. Chair.

Mr. SHUSTER. Ms. Sutton.

Ms. SUTTON. Thank you, Mr. Chairman.

Mr. Smith, if you could just help to clarify. I know that you point out in your testimony that the lack of clarity regarding inherently governmental functions is a problem. So could you just expand on what you think those governmental—how that should be defined?

Mr. SMITH. I actually think it is very adequately defined in the FAR today, prior to the issuing of the policy letter that just came out within the last week or two. I think the definitions—you or I would probably agree that something is or is not inherently governmental. I don't think that is the issue.

When you add other layers, things that are closely associated with you, it seems to me that you are no longer putting yourself in a position to look at something from what is the best thing for the Government. I mean, if companies are better at doing certain services, why would the Government not buy from them? Or if they are any less expensive for doing certain services at the same quality, why would the Government not want to buy from a company?

Companies come and go. Companies do not have the long-term—necessarily have the long-term tale of Government employees. So I see it as an advantage to the Government, to be able to buy something now and be able to stop buying it later. When you build an employee staff, I think you don't have that flexibility. You don't get the change of disciplines you might want. You are interested in biology today; you are going to be interested in electronics tomorrow.

Ms. SUTTON. Thank you.

I yield back.

Mr. SHUSTER. Thank you very much.

And I want to thank all of you again for being here today. We appreciate you spending your valuable time. And I know small and medium-sized businesses or wherever you are—I mean, it is confusing to you, dealing with the Government. I know. But I appreciate you taking the time, and I know how valuable that time is to you.

And also to you, Mr. Hodgkins, and your association for letting you come here today and sharing your insights with us. So we appreciate it.

For the members of the panel, tentatively October 7th. If your staff hasn't been contacted, they will be contacted. And if you could, in rather quick form, yea or nay, that will make it easier for us to decide to move forward or not.

Also, on October the 11th, that is the Tuesday after the—after the 10th?—Columbus Day, we are going to have another hearing here with the panel. And your input—certainly we will be talking to the committee staff to get your input on that hearing also.

So, with that, again, I thank everybody for coming today, and this hearing is adjourned.

[Whereupon, at 4:30 p.m., the panel was adjourned.]

A P P E N D I X

SEPTEMBER 20, 2011

PREPARED STATEMENTS SUBMITTED FOR THE RECORD

SEPTEMBER 20, 2011

Statement of Hon. Bill Shuster

Chairman, Panel on Business Challenges within the Defense Industry

Hearing on

Challenges to Doing Business with the Department of Defense

September 20, 2011

Good afternoon. I'd like to welcome everyone to the first of a series of hearings this panel will hold examining business challenges in the defense industry. Chairman McKeon and Ranking Member Smith established this panel to take a deep-dive into the challenges facing firms that already work with the Department of Defense and those that want to do business with the Department. I'm honored that Chairman McKeon asked me to lead this panel alongside my friend from Washington State, Rick Larsen.

Rounding out the panel membership are:

- Bobby Schilling, from Illinois. Bobby represents the 17th district of Illinois which contains Rock Island Arsenal. Bobby is a small-business owner and has firsthand experience of the difficulties dealing with Federal and State Governments.
- Betty Sutton represents the 13th district of Ohio. As co-chair of the Congressional Task Force on job creation, Betty is dedicated to promoting good business practices and creating American jobs.
- Jon Runyan from New Jersey. Jon represents the 3rd district of New Jersey which contains Ft. Dix/Maguire AFB and has a vested interest in defense business practices across the board.
- Colleen Hanabusa is from the 1st district of Hawaii. She has been involved in Hawaii politics since 1998. With a large defense presence in Hawaii, Colleen understands how important it is bring efficiency and effectiveness to the defense industry.
- Allen West from the 22nd district of Florida. Allen retired from the Army in 2004 after 22 years and brings a unique perspective of experience on both sides of the table—Government and industry.

I want to thank all of the members of the panel for taking time to lend their expertise to this effort. We've all heard, in our districts and across the country, from businesses that find it extremely difficult to successfully navigate the DOD acquisition system. This is particularly true for small businesses and those involved in science and technology efforts. While there are programs

out there to assist businesses in transitioning innovative ideas and technologies to a final end-product that satisfies a military requirement, there are many obstacles in the way.

In these current economic times, we must make good use of every tax-dollar we spend on defense and we can do this by leveraging the heart of the American workforce—small businesses. By reducing barriers to entry, we can generate competition, spur innovation, and stimulate the economy. I look forward to working with Rick and the other members of the panel to find ways to do just that.

Statement of Hon. Rick Larsen

Ranking Member, Panel on Business Challenges within the Defense Industry

Hearing on

Challenges to Doing Business with the Department of Defense

September 20, 2011

I want to thank Chairman McKeon and Ranking Member Smith for putting this panel together. In 6 months we will have substantive solutions to the challenges small and medium-sized businesses face when they approach DOD.

The Federal budget is increasingly strained, and the military is not immune to cuts. However, we must ensure that the needs of the military to provide for national security and defense are not shortchanged.

In order to accomplish this, the DOD will need to stretch their dollar and maintain robust competition. Better contracting will also offer a chance for job creation and growth for companies that often have the best products but find barriers in their path when they approach DOD. How to make and implement improvements is something we will aim to discover over the next few months.

Small and medium-sized businesses need to be part of the defense industrial base, and that means rethinking the current model. Our goal must be to break down barriers and improve competition for defense contracting to get better prices and better products and services for the warfighter.

I thank our witnesses for their participation today. Understanding the general framework of the challenges we face will help identify solutions.

Last month, the Chairman joined me in Everett, Washington, in my district when I held a roundtable with local leaders. We spoke with them about their successes and their failures in working with DOD. One individual spoke of having to outline technical specifics to DOD in order to have a proposal released, only to then have the competition have access to those specifics. Another spoke of not receiving payment on time—a serious concern for small companies not flush with cash. We need to continue to talk and listen to these businesses and find solutions.

I want to thank all my colleagues on this panel. I believe this entire group of members brings a diverse perspective on the issues. We are all here because we want to improve the chance for competition, for job growth and for making certain our military and our soldiers have the best options and capabilities available to them.

TechAmerica
WHERE THE FUTURE BEGINS
THE ASSOCIATION OF COMPANIES DRIVING INNOVATION WORLDWIDE

Testimony of

A.R. "Trey" Hodgkins, III
Senior Vice President for
National Security and Procurement Policy

Before the
Defense Business Panel of the
Armed Services Committee
U.S. House of Representatives

Tuesday, September 20, 2011

Testimony of Trey Hodgkins, SVP of National Security and Procurement Policy, TechAmerica
Business Challenges within the Defense Industry
Defense Business Panel of the House Armed Services Committee
September 20, 2011

Chairman Shuster, Ranking Member Larsen and Members of the Panel, my name is Trey Hodgkins and I am the Senior Vice President for National Security and Procurement Policy at TechAmerica. I want to thank you for the opportunity to testify before you on "Business Challenges within the Defense Industry" and note for you the unique position TechAmerica enjoys representing companies both within and as suppliers to the Defense Industrial Base. Technology is ubiquitous in all sectors of the economy and the majority of the population relies on technology in their everyday lives. It is also ubiquitous in the missions of the Department of Defense and we believe it is a significant differentiator in the success of those missions.

TechAmerica is the leading voice for the U.S. technology industry, which is the driving force behind productivity, growth and jobs creation in the United States and the foundation of the global innovation economy. Representing approximately 1,000 member companies of all sizes from the public and commercial sectors of the economy, it is the industry's largest advocacy organization. It is also the technology industry's only grassroots-to-global advocacy network, with offices in state capitals around the United States, Washington, D.C., Europe (Brussels) and Asia (Beijing). TechAmerica was formed by the merger of AeA (formerly the American Electronics Association), the Cyber Security Industry Alliance (CSIA), the Information Technology Association of America (ITAA) and the Government Electronics & Information Technology Association (GEIA).

I noted the unique positioning of TechAmerica in relation to the Defense Industrial Base. This is because our members range from traditional large defense industrial base companies to the most innovative and agile of small technology companies from across the Nation. While many of the large and mid-sized companies derive a significant portion of their business activity from the Federal government, a large number of our members are either suppliers or subcontractors to those large companies, direct suppliers to the Federal government or are completely outside of the public sector and are not currently supporting the Federal government market. Another unique aspect of many of the companies in this diverse group is that their business models are commercial in nature: offering commercial items distributed around the world that are developed and manufactured using a global supply chain. I'd like to relate for you today how these factors impact how we view challenges facing the defense industry and note for your attention how some of the elements of your agenda have a technology-specific perspective.

Commercial Companies and Commercial Items

As noted earlier, a significant portion of our member companies are either purely commercial in nature or have significant presences in the commercial market. This is important to note because these companies have come to rely upon 90s-era reforms found in the Clinger-Cohen Act, among others, that created a preference for commercial items in Federal government acquisitions. More importantly, the same statutes provide that these transactions should be conducted in the same fashion, as closely as possible, to commercial transactions for the same items and not include government unique requirements. These reforms gave the Federal government access to commercial technology and innovation and helped drive savings for the taxpayer. Prices for items fell to those that were asked in the commercial market, or better and the government could rely upon commercial investment and product development for innovation in a wide array of market sectors.

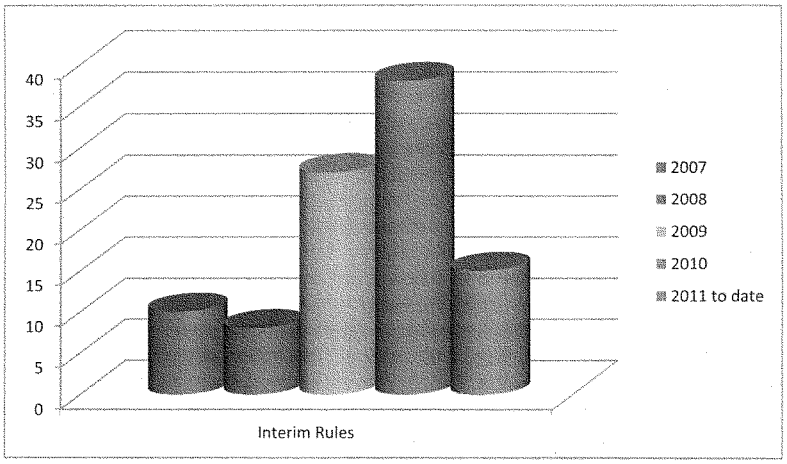
Unfortunately, many of those tenets have been forgotten or abandoned and, for commercial companies in particular, doing business with the Federal government no longer has any real resemblance to the commercial transactions for the same or similar items. Another marked change in this arena is that while the Federal government used to command a lion's share of the market for many items, it no longer enjoys that position for much of the technology sector. Most of the commercial technology companies find their Federal government market represents five-percent or less of the total global market for their business. With such conditions, companies find themselves in the situation where a relatively small portion of the market is imposing requirements that impact the vast majority of the commercial products and services they sell.

Our members are the U.S.-based elements of their companies and they are proud to support the Federal government. But, making the business case argument for accepting these conditions is increasingly difficult. Policymakers need to understand that condition and the impact it has on the Federal government's access to innovation, competition and mission success. When commercial companies find that doing business with the Federal government has become too burdensome or too risky, they either choose to stop selling directly to the Federal government or leave the market entirely. Equally as important, many commercial companies look at the challenges, hurdles and regulatory and legal burdens they would assume if they entered the public sector market and choose to stay out.

These distinctions are important to note because they alter the number and types of companies that are willing to enter and stay in the Federal government market at any level. This impacts who offers products and services directly, indirectly and as suppliers to the government and potentially means that some of our adversaries enjoy better access to innovation and technology than the U.S. Government and our warfighters.

Impact of Regulations on Business

Regulations have emerged in the last few years as an area of concern for TechAmerica and our member companies. If the panel wishes to identify and mitigate barriers to entry for technology or small businesses, or both, it does not need to look any further than the regulatory burden on companies providing their products in the Federal government market. For example, TechAmerica companies were concerned with the apparent growth in the use of interim rules with immediate enforcement requirements in the last several years. By reviewing acquisition regulations published in the *Federal Register*, TechAmerica discovered that there is a clear and pronounced trend line upwards in the use of interim rules. The chart below shows initial results of that research.



This means that companies and agencies have less time to react to these proposals, restructure as necessary and become compliant. Such compliance requirements are ultimately borne by the taxpayer, so finding better, more efficient and meaningful ways for industry to engage in regulatory promulgation and providing adequate time for implementation would help address some of the impact this increase in immediately enforceable regulatory requirements imposes.

Another trend TechAmerica has seen is the increase in general regulatory reporting burdens, as measured in the *Federal Register* requests for waivers from the requirements of the Paperwork Reduction Act. Such waivers have become commonplace and fail to acknowledge the significant cumulative burden these reporting requirements place on government contractors. The cumulative burden, as estimated by the *Federal Register* notices, is tens of millions of hours each year over the three year life of the waivers. TechAmerica also believes the methodology used by the Federal government to calculate the burdens is faulty. In calculating an estimate of the burden for compliance, the methodology only accounts for the time necessary to complete the appropriate form and does not account for the data collection activities necessary to monitor for compliance and aggregate the necessary data to complete any relevant forms. In FAR Case 2007-006, TechAmerica identified a challenge to this methodology that resulted in a 20x increase in the estimated reporting burden for that one acquisition reporting requirement. It is our recommendation that the committee further examine the cumulative impact that regulatory reporting burdens place on the public sectors companies and seek to find ways to more accurately reflect the correct burden for compliance.

Finally, DoD regulatory trends are not any better, with a marked increase in the use of guidance instead of what industry feels should be promulgated regulatory actions. These guidance efforts create additional burdens on companies that specifically wish to do business in the Defense Industrial base and are further barriers to successful entry and sustainment in the market.

Barriers to Defense Industrial Base Entry

Entering the public sector is a daunting undertaking, given the myriad of government unique requirements that are placed on any company engaged in the space. For example, while TechAmerica fully supports transparency in government contracting, we believe that there are limits where disclosing

information would expose corporate proprietary information or, as part of a larger disclosure, vulnerabilities in our national security. Companies, particularly commercial companies, look at the levels of disclosure – everything from sensitive information about growth plans to executive compensation – and conclude with relative ease that they alone are a sufficient barrier to doing business with the Federal government. It is noteworthy that this apprehension is expanding in direct correlation to government expansion of reporting requirements for subcontractors and suppliers. Companies that previously were not subject to government reporting or other burdensome regulatory requirements are now subject in many areas to the same or similar requirements that prime contracts face. Many see those new and expanded requirements as further evidence that they should not enter the market, even as a subcontractor or supplier providing their innovations through integrators or others selling directly to the government.

Another barrier to entry for companies providing goods or services at any level of government is the three-percent withholding tax on government contractors. TechAmerica would commend the House Armed Services Committee for their leadership on Capitol Hill in developing information regarding the burdens on contractors and agencies alike and for calling for the repeal of the provision. Withholding three percent of almost all government payments to contractors has no relationship to the tax obligations of those same government contractors and presents itself as a significant barrier to business to enter or stay in the Federal market. The reduction in cash flow alone would foreclose any considerations many small businesses might have for bringing their innovations to government.

A final barrier to mention is the long procurement lead times typically encountered at DoD. Commercial companies are unaccustomed to such long lead times. Instead, they usually are engaged in agile development in incremental models that extend in short cycles of six-month to a year. The Department frequently had lead times of over 24 months in their procurement. Such a condition is not conducive to attracting the innovation that these companies could bring to bear.

Lack of Incentives to be Entrepreneurial and Innovative

Industry does not lack incentives to be entrepreneurial and innovative, particularly in the tech sector as noted above. What serves as a disincentive for bringing those innovations to the public sector are some of the government unique requirements placed on companies and the burdens of

doing business with the government. Some of these have been discussed above, but one to embellish here is the recent increase in efforts to change the ownership of intellectual property when selling to the government. Proposals differ, but generally speaking, there is a real possibility that an entrepreneur could end up sharing ownership of his or her intellectual property with the government if they have an innovative new product that will be acquired and modified for government use using government funding. Governing laws and case decisions define specific points when ownership changes, but these new proposals would blur those lines and make the government a part owner for even relatively minor investments into an innovation for adoption by the government. This possibility is a real disincentive for many innovators and entrepreneurs.

Another barrier to effective adoption of technology and innovation at DoD and in the Federal government is the emphasis placed in acquisitions on "lowest priced, technically acceptable." While the members of TechAmerica understand the governments' need to get fair and reasonable pricing for the goods and services it acquires, the practice has become the preference and is a regulatory requirement now, forcing acquisitions to overlook better or more secure products to save a little on the price. Instead of seeking the historical criteria of "best value," which included not only a fair price, but also security, capability and total lifecycle costs, we have handcuffed the acquisition workforce into procuring only those items or services that are "lowest priced, technically acceptable" and require them to justify any acquisition that does not fit that criteria. The resultant aversion to products or services that are not "lowest priced, technically acceptable" means that even if the offering is more innovative and is the "best value," it is unlikely to be considered for final award. A good example where this policy is causing harmful, if unintended, consequences is in the assurance of the supply chain for the Department. TechAmerica members are on record supporting a change in policy to require that sourcing for acquisitions of information technology hardware, software and services are limited to original manufacturers or suppliers who are authorized by those manufacturers. Multiple cases exist where the pursuit of "lowest priced, technically acceptable" items drove behavior that resulted in the acquisition of untrusted or even counterfeit items.

Small Business Staying "Small"

TechAmerica hears from many of our members who are small, but growing or have just graduated and are now considered "medium" sized companies, that there are disincentives to being too successful in the government

market. First and foremost, if they "graduate" they are left without any assistance or support and risk having to compete with large established companies or fail. Many have to define and then occupy a specific niche area of the market, even becoming subcontractors to small business prime contractors, to survive. TechAmerica has long supported revising the small business size standards to reflect sector differences, but also market differences. There should be an allowance to grow larger for companies engaged in the public sector, as opposed to a company only getting support as a small business in the commercial market. Such a distinction in the technology categories could serve as an incentive to both encourage market involvement and to attract innovation to the public sector space.

Funding Limitations to Transition Technology for DoD Deployment

There will always be innovations that, but for more funding and financial assistance, could be brought to a broader market. TechAmerica believes the Panel should focus more on how funding limitations frequently pose a far bigger problem for transitioning technology for use at the Department of Defense. Current funding processes require the acquirer to identify the technology that they want to deploy and then begin the multi-year process of building the request for funds, getting that request through Department and Administration approvals before being submitted to Congress for adoption. By the time the acquirer has funding approval to begin acquiring a new technology, the product is several generations old, if it has not been replaced entirely with a newer innovation. As TechAmerica recommended as part of the GTO-21 report and OMB proposed, Congress needs to examine the way it funds technology acquisition and deployment, because it is a real barrier to successful innovation adoption in the Department and across the Federal government.

* * * * * *

TechAmerica appreciates the opportunity to raise these issues for consideration and looks forward to further engagement with the Panel. I'd like to leave you with these thoughts about the tech sector from a recent editorial by Phil Bond, TechAmerica's President and CEO as a guide post for how you can improve tech sector involvement as an important part of the Defense Industrial Base:

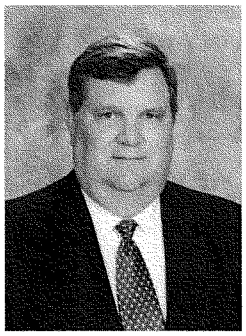
> "The American technology sector was born here, flourished here and, with the proper attention and policy changes, can continue to thrive

here. Technology-driven innovation has long been the source of America's greatest strength, providing our nation with unparalleled economic and military advantages that have secured our leadership position in the world. It boosts all industry sectors and creates jobs.

On average, each tech job supports three jobs in other sectors of the economy. The multiplier effect for information technology jobs is even higher — nearly 5 to 1. Information technology has a proven track record of economic success, having recently accounted for more than a third of U.S. gross domestic product growth and nearly two-thirds of corporate capital investment.

Today, there are 375,000 information technology businesses in this country, employing more than 5.9 million workers at an annual average wage 86 percent higher than the current average private-sector wage. By 2018, information technology jobs are projected to grow by 22 percent, the fastest of all professional occupations.

Despite our current challenges, we are still the envy of the world. A diverse mix of entrepreneurs, scientists and skilled workers create and apply the technologies that are transforming our world and driving our economy, no matter what state it's in. But they need a favorable policy environment in this increasingly competitive world."



A.R. "Trey" Hodgkins, III

Trey Hodgkins is the Senior Vice President for National Security & Procurement Policy at TechAmerica. His focus is on the use of information technology at the Department of Defense and in the intelligence community (IC) and on the acquisition and procurement policies of the federal government. IT-related areas of specific interest within the USG, the DoD and the IC include: procurement and acquisition in the Federal government marketplace, information assurance and cybersecurity, IT acquisition reform, IPv6, the Federal Desktop Core Configuration, Energy Star and Sustainability, business systems modernization, defense logistics modernization, security clearance reform, specialty metals, rare earth and conflict metal use in electronic components, intelligence community reform and acquisition and contracting in the Intelligence Community. Mr. Hodgkins is heavily involved in industry efforts to effect both legislative and regulatory changes in these and other areas.

Trey has a total of 29 years in the Federal, State and Local government arenas, serving as a staff aide in the Louisiana State Legislature, as a Federal Liaison at the National Rifle Association; Assistant Director for Legislative Affairs at the American Textile Manufacturers Institute, Manager of Governmental Affairs at the Louisiana Sheriffs' Association and Director of Government Relations at the Association of Old Crows.

Trey holds two Bachelor's degrees - in Political Science and History – from Louisiana State University and a Masters degree in Legislative Affairs from The George Washington University. He also holds a Certification as an Association Executive from the American Society of Association Executives.

June 2011

DISCLOSURE FORM FOR WITNESSES
CONCERNING FEDERAL CONTRACT AND GRANT INFORMATION

INSTRUCTION TO WITNESSES: Rule 11, clause 2(g)(4), of the Rules of the U.S. House of Representatives for the 112th Congress requires nongovernmental witnesses appearing before House committees to include in their written statements a curriculum vitae and a disclosure of the amount and source of any federal contracts or grants (including subcontracts and subgrants) received during the current and two previous fiscal years either by the witness or by an entity represented by the witness. This form is intended to assist witnesses appearing before the House Armed Services Committee in complying with the House rule.

Witness name: Trey Hodgkins

Capacity in which appearing: (check one)

___Individual

_X__Representative

If appearing in a representative capacity, name of the company, association or other entity being represented: TechAmerica

FISCAL YEAR 2011

federal grant(s) / contracts	federal agency	dollar value	subject(s) of contract or grant
n/a			

FISCAL YEAR 2010

federal grant(s) / contracts	federal agency	dollar value	subject(s) of contract or grant
n/a			

FISCAL YEAR 2009

Federal grant(s) / contracts	federal agency	dollar value	subject(s) of contract or grant
n/a			

Federal Contract Information: If you or the entity you represent before the Committee on Armed Services has contracts (including subcontracts) with the federal government, please provide the following information:

Number of contracts (including subcontracts) with the federal government:

Current fiscal year (2011):_____;
Fiscal year 2010:_____;
Fiscal year 2009:_____.

Federal agencies with which federal contracts are held:

Current fiscal year (2011):_____;
Fiscal year 2010:_____;
Fiscal year 2009:_____.

List of subjects of federal contract(s) (for example, ship construction, aircraft parts manufacturing, software design, force structure consultant, architecture & engineering services, etc.):

Current fiscal year (2011):_____;
Fiscal year 2010:_____;
Fiscal year 2009:_____.

Aggregate dollar value of federal contracts held:

Current fiscal year (2011):_____;
Fiscal year 2010:_____;
Fiscal year 2009:_____.

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Fiscal year 2010:_____;
Fiscal year 2009:_____.

Federal agencies with which federal grants are held:

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Fiscal year 2009:_____.

List of subjects of federal grants(s) (for example, materials research, sociological study, software design, etc.):

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Fiscal year 2010:_____;
Fiscal year 2009:_____.

Aggregate dollar value of federal grants held:

Current fiscal year (2011):_____;
Fiscal year 2010:_____;
Fiscal year 2009:_____.

Defense Business Environment
Mid-Sized Company Perspective

Bradford L. Smith, Jr., President, Strategic Analysis, Inc.

Introductory Comments. My name is Bradford Smith. I want to thank you for the opportunity to testify before the HASC Defense Business Panel. I am the owner of Strategic Analysis, Inc., a small to mid-sized business that provides professional services to Federal Agencies. Strategic Analysis (SA) is a service-disabled, veteran-owned business founded in 1986. We have ~250 employees supporting a wide range of U.S. Government clients with offices in Arlington, VA, Washington, D.C., Colorado Springs, CO and Dayton, OH. We provide professional services to US Government Agencies and components to include:

- Systems Engineering and Technical Assessment / Advisory and Assistance Services
- Advanced Concepts and Intelligence Support Services
- Information Technology Services
- Conference Planning Services

We work for the Departments of Defense, Energy and Homeland Security. For most procurements, we are a large business. For some we are a small business. I am making suggestions based on 38 years of experience in competing for business in government professional services.

As I understand the format of this hearing, each of us is to provide a short set of remarks, followed by questions from the Panel. My remarks address the use of incentives and mandates to shape the defense business environment.

One specific concern of mine comes from the current trend toward ultra-large indefinite delivery indefinite quantity contract set-asides for very small businesses. The tendency to "bundle" procurements is also prevalent in full and open competitions. Today's highly constrained budget environment is likely to cause a greater emphasis on contract bundling. I am concerned that the very small companies that win such ultra-large set-asides must focus their resources on strong proposal and program management capabilities rather than on their unique skill sets and people. This trend is discouraging innovation in a sector of the industrial base where much of our innovation starts.

Secondly, I am concerned that mid-sized businesses are being excluded from most set aside competitions. Mid-sized companies are too big for such competitions and must compete in full and open competitions. I find it hard to believe that a company with 250 employees is too big to compete for $1B, 5-year service contracts. Growth to mid-sized for us was not as a result of a specific small business set-aside program, but instead was the result of our reputation for quality and our desire to provide more opportunities for employees.

Many owners in my position have chosen to sell their mid-sized companies as an exit strategy. We have not. I truly believe that the government is losing a significant part of its industrial base as mid-sized companies merge with larger businesses. The CSIS study that I reference in this paper shows quantitatively the squeeze now facing mid-sized businesses.

Mid-sized companies provide a significant resource for the Department of Defense. The differentiation of small, mid-sized and large businesses highlights the continuum of companies. Mid-sized companies are as innovative as small businesses, they are agile in the marketplace AND they are a significant creator of jobs. The conventional wisdom is that job creation starts with small businesses. Mid-sized companies can actually generate more jobs.

I also want to highlight one regulation that makes the problem worse for small businesses, the "51%" rule. A small business that wins a prime contract set-aside for small businesses must execute at least 51% of the effort. Even while teamed with other small businesses, the work provided by such teammates is not counted as part of the 51%. To get the work of all small businesses to be counted, they must form Joint Ventures of similarly-sized companies, a risky endeavor. In fact, the Air Force was forced to change its approach, which was more flexible. Where it made sense, the Air Force was allowing the 51% work requirement to be met by all of the small businesses on the proposed team. The 51% requirement has caused winning prime contractors to outgrow the small business size standard over the period of their 5- or 10-year contract, bringing them to a crossroad at the end of the contract when they cannot compete for the follow-on contract.

Although consideration of the definition of inherently governmental is not specifically mentioned in the scope of your deliberations, I recommend that you address it. OMB recently issued a policy letter attempting to clarify the definition of inherently governmental and establishing a policy. I suggest that the government stay with current FAR definitions and regulations. The new policy letter introduces new concepts of services closely associated with inherently governmental functions or services in critical functions, which will likely lead to unnecessary in-sourcing and, in some cases, will not provide the "best value" solution that would result from competition.

My submission provides more on each of these including the supporting rationale. Here are a few suggestions.

The Mid-Sized Business "Squeeze." I suggest the Panel explore ways of supporting mid-sized businesses through, for example, creating a new set-aside program; modifying NAICS codes; or modifying the small business size standards to encompass mid-size businesses. Service areas in direct support of government agencies and components are an example of where such a set-aside is in the public's interest; for example, services where companies are required to agree to Organizational Conflict of Interest restrictions such as advisory and assistance contracts and systems engineering and technical assistance contracts (A&AS and SETA). They require broad technical expertise; reach back capacity; and strong program management processes, capabilities that smaller businesses do not typically have. Further, mid-sized companies are not so large that that have inherent organizational conflicts of interest.

Ultra-Large, Multi-Award, IDIQ, Small Business Set-Aside Contracts (and the 51% Rule). Ultra-large, multi-award, indefinite delivery indefinite quantity (IDIQ) contracts for services are a poor choice for small business set asides. My suggestion for the Panel is to recommend that set asides be designed to exploit the unique skills and character of small businesses rather than awarding contracts to small businesses that have the strongest program management capabilities. Also, consideration should be given to changing the "51%" rule allowing small businesses to team with other small businesses in a prime-subcontractor approach and let their combined effort count as the 51%.

Lack of clarity regarding inherently governmental, closely associated and critical functions. The government has a fiduciary responsibility to maintain functions that are inherently governmental. Beyond that, the public interest is in gaining the "best value" for tax dollars expended. Private companies welcome competitions where they can show that they are truly "best value."

Thank you for your time.

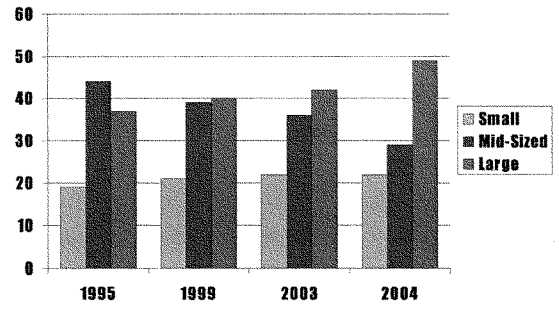
The Mid-Sized Business "Squeeze"

2009 CSIS Study of the USG Professional Services Industrial Base

- Industrial base for professional services changed significantly between 2001 and 2007
  - The total number of companies increased from 45,000 to 118,000.
  - 101 companies having more than $100M in services revenue
  - 20 largest services providers all have annual revenues exceeding $1B
- 2009 CSIS study shows the significant decline in contracted effort by mid-sized businesses, including larger small businesses (500 to 1500 employees)
  - From above by consolidation of both industry and requirements
  - From below from a small business set aside program that emphasizes smaller small businesses

*[1] Structure and Dynamics of the US Federal Professional Services Industrial Base 1995-2007; David Berteau, Gov Ben-Ari and Gregory Sanders, Center for Strategic & International Studies, February 2009.

Market Share of Small, Mid-Sized and Large Firms



Mid-Sized Companies Evolution

- Many successful small businesses grow into mid-sized companies
  - Retain the culture of small and the specialization that has made them a success
  - Evolve enough corporate infrastructure to support more people, more contracts, and more oversight
- Staying in business niches becoming harder
  - Larger and larger procurements for services
  - The competitive landscape favoring breadth
  - The need to implement the stylized processes necessary to compete for prime contracts has become more important than specialties
  - A heavier reliance on subcontracts, which puts business success in the hands of large businesses
- Natural evolution is to be acquired by larger businesses

Set-Asides for Services

- Primarily for smaller small businesses
  - Often the size standard is $27M and requires the bidder to perform 51% of the work as well as be able to work throughout the United States and overseas
  - Bundling is creating ultra-large IDIQ procurements for technical services (often with ceilings of >$100M per year)
  - It is essentially impossible for a very small company to successfully accomplish such a breadth of work without a large business partner
- Incumbent *large primes are determining the winners* by selection of their partner
- Mid-sized companies and other smalls getting factored out as the work share primarily sits with the small prime (who has to perform >50% of the work) and their chosen large subcontractor

Case Study: Air Force Approach for Mid-Sized Businesses

- Significant experience in the acquisition of SETA and other acquisition-related support services
  - Capitalizes on the strengths of all three company sizes, including mid-sized companies
- Air Force created larger small business categories for SETA work
  - Wright-Patterson Air Force Base was able to gain SBA approval for additional size standards for NAICS 541712, Research and Development in the Physical, Engineering and Life Sciences
  - The normal size standard for 541712 is 500 employees, however for Space Vehicles, Space Propulsion and Equipment, Aircraft Parts and associated categories the standard is 1000 employees and for Aircraft the size standard is 1,500
- Air Force is now pursuing a heavily small business SETA acquisition approach under these NAICS codes
  - USAF gains access to companies with more technical reach
  - Companies providing support are not so large as to have built-in OCI

Two Birds, One Stone

- Create a new set-aside program for Mid-sized companies
  - Service areas inside OCI envelope (SETA and A&AS)
  - Implement a company certification process like that of NRO
  - Set contract size standard to prevent automatic disqualification of primes in follow-on
  - Sets aside work for mid-sized companies similar to small business set asides
  - Requires achievement of small business goals
- Why?
  - Supports natural evolution of stand-alone small businesses
  - Provides better opportunity for contract stability
  - Greatly reduces OCI risk
  - Stronger support for the small business community as a whole
  - Allows niche companies to keep their focus

Ultra-Large, Multi-Award, IDIQ, Small Business Set-Aside Contracts (and the 51% Rule)

What is an Indefinite Delivery Indefinite Quantity Contract?

- Defined in the FAR
  - Indefinite quantity during a fixed period
  - Government places orders for individual requirements
  - Preference to multi-award
  - No protests allowed for initial task-order contract or delivery-order contract, except if out of contract scope/period/value and/or over $10M in task order value
  - Normally 5 year limit

Preference for Small Businesses

- Professional services carry lower infrastructure requirements
  - Work on Government site
  - No capital investment
  - Typically no labs/building footprint needed by contractor
- Services carry a lower cost
  - Smaller IR&D programs
  - Highly billable staff
  - Lower fee (sometimes capped at 8% depending on contract type)
- OCI not as prevalent
- Meet small business goals

Large Means Really Large

- Why Move to Consolidation?
  - Decrease contract Government costs
  - Increased awareness of all agency activities as they come through one shop
  - Reduced duplication of efforts
- Examples of small business ultra-large contract set asides (over 5 years):
  - GSA Alliant - $15B
  - Joint N2A2S - $200M
  - AF NETCENTS II SB - $5.39B, $960M...(Multiple Categories)
  - GSA VETS - $5B
  - Army SMDIS II - $245M
  - Army SMIDIS III - $450M
  - AF CAPS - $300M
  - Army COSMIC - $932M
  - Note for Reference: Seaport-e (Full and Open) - $19.5B

Trending of Consolidated, Multi-Award IDIQ Contracts for Services

- Over the past decade, multi-award IDIQ contracts have become the preferred contracting approach for services
- This approach combined with consolidation initiatives have resulted in ultra-large IDIQ procurement for services (often with ceilings of >$100M per year)
- Services contracts have been quite appealing as ones to target for set-asides and have continued even with these new high ceilings

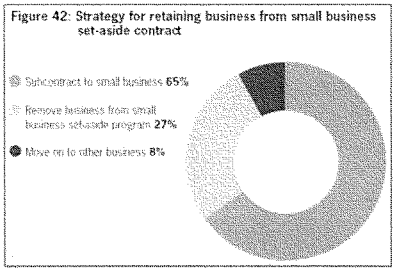
Result: Ultra-large, multi-award IDIQ procurements for services set-aside for small businesses

Inadvertent Consequences

- Loss of technical innovation
  - Under an IDIQ, all work is competed, even work that may be a result of a single vendor's investment (i.e., IR&D)
  - Vendors with innovation will start to look for vehicles that allow them to deliver the client their ideas without the risk of losing the work to a competitor (usurp the contract vehicle) – or look for other clients altogether (no benefit for the intended target client)
  - In today's "no sole source" services procurement world, services vendors are losing incentive for innovation
  - Lowest price, technically acceptable approaches lead to requirements for lower overhead - companies forego IR&D
  - No credit for technical innovation
  - Firm fixed price leads to no room for additional research beyond initial scope

Inadvertent Consequences - cont.

- Small business outgrows size standard
- Graduated small businesses are likely not eligible to prime follow-on contracts
- Become mid-sized companies
- Few other small businesses with developed client mission expertise
- Disconnect with the client
- Work force gets constantly rebadged and feel like pawns
  - Many move on to other more stable contracts



15th Annual Government Contractor Industry Survey, Grant Thornton Industry Survey 2009

Inadvertent Consequences – cont.

- Little benefit to the larger small business community; only the winning small business prime who has to perform 51% of the work
  - It is essentially impossible for a very small company to successfully accomplish such a breadth of work without a large business partner.
  - Mid-size companies and other smalls getting factored out as the work share primarily sits with the Small Prime (who has to perform >50% of the work) and their chosen Large Sub
- Small business primes become focused on management versus mission
  - Must develop processes to compete for prime contracts
  - Must continually respond to Task Orders that come out under IDIQ and manage the team
  - Reliance on large subcontractor puts business success in the hands of large businesses

Proper Implementation of Ultra-Large IDIQ Contracts

- Large IDIQ contracts for services are a poor choice for small business set asides
  - Small businesses outgrow size standard for follow-on contract
  - Weakens the link with the customer
  - Tend to get very large and cover service aspects not originally intended
- Loss of technical innovation needs to be more fully explored
- All task order types (Cost, T&M and Firm Fixed Price) work in certain applications –as well as evaluation type (LPTA, FTT,PPT)
  - Give the CO discretion to match requirement to type and monitor for good decisions
  - Often policy or common practice dictates a choice rather than common sense
  - For example, the trend toward firm fixed price contracts and task orders is often not wise if the specific details of the requirement are uncertain
    - DSB task force support is a good example (chairmen are different, number and length of meetings is different, role in report writing varies, etc.)
- Modify "51%" rule to include small subcontractors

Inherently Governmental, Closely Associated and Critical Functions

FAIR Act and Inherently Governmental

- OMB states that an inherently governmental activity is an activity that is so intimately related to the public interest as to mandate performance by government personnel.
- These activities require the exercise of substantial discretion in applying government authority and/or in making decisions for the government.
  - However, the use of discretion shall be deemed inherently governmental if it commits the government to a course of action when two or more alternative courses of action exist and decision making is not already limited or guided by existing policies, procedures, directions, orders, and other guidance.
- Inherently governmental activities normally fall into two categories:
  - The exercise of sovereign government authority or
  - The establishment of procedures and processes related to the oversight of monetary transactions or entitlements.

Final Administration Policy Letter

- Ensure that contractors do not perform inherently governmental functions
- Especially where contracts have been awarded for the performance of
  - Critical functions
  - Functions closely associated with the performance of inherently governmental functions
  - Where, due to the nature of the contract services provided, there is a potential for confusion as to whether an activity is being performed by government employees or contractors
- Preference for US government employees in the above cases
- Employ an adequate number of government personnel to ensure contract administration protects public interest

Policy letter leads to implementation that provides a preference to in-source functions rather then letting the mission drive the decision.

Examples of Functions Closely Associated with the Performance of Inherently Governmental Functions

- Services that involve or relate to
  - Budget preparation, including workforce modeling, fact finding, efficiency studies, and should-cost analyses.
  - Reorganization and planning activities.
  - Analyses, feasibility studies, and strategy options to be used by agency personnel in developing policy.
- Services in support of acquisition planning.
- Assistance in contract management or the development of statements of work.
- Work in any situation that permits or might permit access to confidential business information and/or any other sensitive information (other than situations covered by the National Industrial Security Program described in FAR 4.402(b)).
- Participation as technical advisors to a source selection board or as nonvoting members of a source evaluation board.
- Construction of buildings or structures intended to be secure from electronic eavesdropping or other penetration by foreign governments.

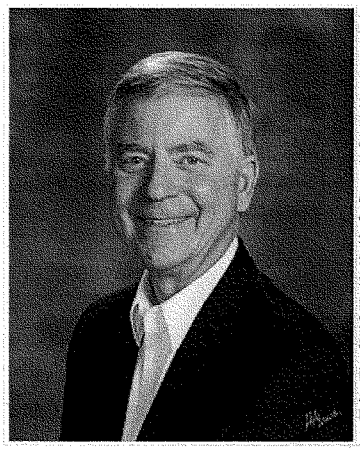
All functions listed above are commonly and successfully performed by contractors.

Recommendation on Inherently Governmental Definition

- Inherently governmental functions are those that require authority and substantial discretion
  - Simple in concept
  - Examples listed in the new policy letter are the same as those in the current FAR
- What is new in the policy is the artificial definition that should have been removed:
  - Closely associated functions
  - Critical functions
- Administration is creating new distinctions to justify in-sourcing
  - Functions closely associated with inherently governmental functions should be evaluated by agencies on a "best value" basis, not arbitrarily in-sourced.
  - If it is not inherently governmental, it should not be treated as such.

Remove discussion of closely associated functions and critical function from the OMB policy letter

- The FAR definition is sufficient.
- Treat the closely associated and critical functions using "best value" methodology.



About the President

Bradford L. Smith, Jr. is the President of Strategic Analysis, Inc. Mr. Smith provides systems engineering and analytical studies in the areas of future military systems concepts, long-range defense strategy development and planning, defense technology base management, and analysis of international technology transfer.

Mr. Smith has technical experience and expertise in electro-optics/infrared sensors, radar systems, acoustic sensors, computers and microelectronics, non-acoustic anti-submarine warfare (ASW) sensor technology, and advanced signal processing. He has led studies on advanced signal processing and aerospace technologies for the Office of the Secretary of Defense and has performed a variety of analytic efforts for the Defense Science Board.

From 1969 - 1973, he served in the US Army with the US Army Security Agency, Arlington Hall Station, VA and with US Forces Korea, Seoul, Korea.

DISCLOSURE FORM FOR WITNESSES
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Witness name: Bradford L. Smith, Jr.

Capacity in which appearing: (check one)

○ Individual

◉ Representative

If appearing in a representative capacity, name of the company, association or other entity being represented:

FISCAL YEAR 2011

federal grant(s) / contracts	federal agency	dollar value	subject(s) of contract or grant
59	Defense Agencies	65M	SETA/IT Support
34	DHS	25M	SETA/IT Support
11	Navy	14M	SETA/IT Support
16	Army	6.4M	SETA/Conference Support
21	OSD	10M	SETA/Analytical Support
22	Miscellaneous	3M	SETA/Conf/Analytical Support

FISCAL YEAR 2010

federal grant(s) / contracts	federal agency	dollar value	subject(s) of contract or grant
43	Defense Agencies	71M	SETA / IT / Conf. Support
37	DHS	44M	SETA / IT Support
12	Navy	15.1M	SETA / IT/ Conf. Support
20	OSD	12M	SETA /Conf. Support
25	Other Agencies	9M	SETA/Conf/Analytical Support

FISCAL YEAR 2009

Federal grant(s) / contracts	federal agency	dollar value	subject(s) of contract or grant
36	Defense Agencies	75M	SETA / IT / Conf. Support
32	DHS	34M	SETA / IT Support
9	Navy	23M	SETA / IT/ Conf. Support
14	Army	20M	SETA /Conf. Support
18	OSD	9M	SETA/Conf/Analytical Support
30	Other Federal	8M	SETA/Conf/Analytical/IT Support

Federal Contract Information: If you or the entity you represent before the Committee on Armed Services has contracts (including subcontracts) with the federal government, please provide the following information:

Number of contracts (including subcontracts) with the federal government:

Current fiscal year (2011): 163;
Fiscal year 2010: 137;
Fiscal year 2009: 124.

Federal agencies with which federal contracts are held:

Current fiscal year (2011): OSD, Defense Agencies, Navy, Army, DHS;
Fiscal year 2010: OSD, Defense Agencies, Navy, Army, DHS;
Fiscal year 2009: OSD, Defense Agencies, Navy, Army, DHS.

List of subjects of federal contract(s) (for example, ship construction, aircraft parts manufacturing, software design, force structure consultant, architecture & engineering services, etc.):

Current fiscal year (2011): Scientific, Engineering, Technical, Administrative; Analytical and IT Services;
Fiscal year 2010: Scientific, Engineering, Technical, Administrative; Analytical and IT Services;
Fiscal year 2009: Scientific, Engineering, Technical, Administrative; Analytical and IT Services.

Aggregate dollar value of federal contracts held:

Current fiscal year (2011): 120M;
Fiscal year 2010: 150M;
Fiscal year 2009: 170M.

Federal Grant Information: If you or the entity you represent before the Committee on Armed Services has grants (including subgrants) with the federal government, please provide the following information:

Number of grants (including subgrants) with the federal government:

Current fiscal year (2011): None;
Fiscal year 2010: None;
Fiscal year 2009: None.

Federal agencies with which federal grants are held:

Current fiscal year (2011): None;
Fiscal year 2010: None;
Fiscal year 2009: None.

List of subjects of federal grants(s) (for example, materials research, sociological study, software design, etc.):

Current fiscal year (2011): None;
Fiscal year 2010: None;
Fiscal year 2009: None.

Aggregate dollar value of federal grants held:

Current fiscal year (2011): None;
Fiscal year 2010: None;
Fiscal year 2009: None.

Testimony of Ms. Heidi Jacobus, Chairman and CEO of Cybernet Systems Corporation on the merits of and deficiencies in the current SBIR program as applied to the Department of Defense

Chairman Shuster, Ranking Member Larsen, thank you for the opportunity to address the Defense Business Panel this afternoon.

Introduction

I want to tell you about my 20 years of experience since starting a high-technology federal contracting business from scratch. The highly competitive, merit-based SBIR program made Cybernet possible, and without it I am confident my company would not have been able to exist.

I told the story of the founding of Cybernet 13 years ago in a Senate hearing on the second before last reauthorization of SBIR (Congressional Record attached). Then, as now, SBIR was a successful small-business program. Its reauthorization was uncontroversial. The current SBIR Reauthorization (in its 12th CR) has been fraught with fractiousness over many issues including who is eligible to compete for an SBIR, and who qualifies as a small-business owner and operator. I believe that the proposed changes are drastic departures from a 30 year proven program, and will not be for the good of the Soldier, Sailor, Airman or Marine.

H.R. 1425 damages SBIR competition based on Merit.

One of the most egregious changes the House Small Business committee proffered in H.R. 1425 is Section 505 which dilutes merit-based selection because the most meritorious companies will be restricted in participating. Does this mean that an item might end up in the field with second rate technology? Should proven good small business not apply?

Prior House Small Business Committee and the Science Committee testimony DOES NOT represent the over 50% of SBIR awardees that receive Defense Contracts.

The House Small Business Committee and the Science Committee have jurisdiction over the entire SBIR program, but consider that fully half; more than $1 Billion of SBIR funds are expended in the Department of Defense. During the past few years there have been cognizant committee hearings on SBIR in the House. An examination of witness lists from these will show that the vast majority of those giving testimony have been taken from Biotechnological firms, Universities, Large (Billion dollar plus) venture capital firms, and Medical Patient

or Disease Advocacy groups. All of these principally compete for the non-DOD half of SBIR – i.e., the Science and Health agencies.

Cybernet has received many federal contracts as shown on my Witness Disclosure Form. Although we have worked for many agencies, Cybernet's work is mostly for the Department of Defense, all selected after rigorous nationwide competitions. Besides the federal contracts, we have been granted more than 35 U.S. Patents for our innovations.

I make a strong distinction between federal contracts (as used in the DOD process) and federal grants (as used by the Science and Health agencies). This panel's Witness Disclosure Form makes the same differentiation that separates federal contracts from federal grants. Cybernet does not apply for "grants," all of our DOD work is won by submitting openly competed proposals for contracts to meet defined needs. I use the term 'open' in this context because by design, SBIR competition is open to all small businesses of from 1 person to 500 people in size.

"Full and Open" means "Do not apply" to Small Businesses – Large businesses have a systemic advantage.

I did not use the term "full and open competition." At the dawn of SBIR, its authors recognized while nearly half of the nation's scientists and engineers were employed by small businesses of less than 500 people, small businesses received federal funding for research and development in the low single digits percent. This meant that a significant amount of U.S. scientists and engineers were not contributing to federally funded research to meet soldier's needs.

Some have argued that the allocation of SBIR funds to 1-500 person sized small businesses ought not exist, that 'if the company is good enough it can compete for R&D contracts.' I can give the panel many examples from my business's attempts to win contracts in David and Goliath settings. Practically speaking, small businesses such as ours did not and still do not have a high likelihood of winning "full and open competitions" against the likes of BAE, Boeing, and Lockheed Martin, the top 3 defense contractors that combined had nearly a trillion dollars in revenue in 2008. *Without SBIR, nearly one half of the nation's technically competitive technical staff will not be allowed to bring their knowhow directly to the DOD. They will only be allowed to compete with service firms like travel*

agencies, janitorial services, and temp agencies for what is still an insignificant dollar amount small business contracting through the large Prime contractors.

Sometimes a small valued, but seminal R&D topic RFP is announced as a "full and open competition." A small business, such as Cybernet, might well have the technical staff on hand and want to get a foot-hold in the domain. We have been in many such competitions. The large companies that desire the forward looking work can apply massive internal research and development funds (IR&D or "IRAD"), which are for the most part also re-purposed federally funds (allocated to the Prime by overhead allowable funds that come with their large programs work like the F-22 or the Ground Combat Vehicle). Furthermore, they have marketing people everywhere and inevitably know more inside information about each project that we can easily know from openly published information sources. *Even in the case of a small "starter" contract of several hundred thousand dollars, a larger prime can apply "loss-leader" funds and "special knowledge pertaining to the bid" to its bid and proposal (B&P) funded effort. The result is the smaller businesses won't win, even when they are lower in cost and may have a technical edge.*

I saw such an example of loss-leading bidding years ago. Before "Photoshop" made color pictures easy and inexpensive; we had used our best technical and "artistic" efforts to create a plain black and white paper proposal. The RFP topic was technically very appealing, the future contract's dollar amount low. We had several Ph.D. engineers capable and eager to utilize their knowledge. The winning system was unveiled with a screening of a "Hollywood" style movie-clip, filmed with realistic actors, equipment and scenery depicting the proposed work. The production price was likely more than our annual revenue at that time.

A cost accounting pool for Bid and Proposal (B&P) is part of most government contractors' structure, and another cost pool called IR&D or IRAD (Internal Research and Development) is available and can be used freely. As a negotiated percentage, large companies' billions of dollars of base acquisition business naturally produces a huge IR&D resource for them. As I understand it, what is done with that IR&D pool is not required to be delivered as part of a contract – effectively the Government provides pure investment money without strings to Primes. Potential uses of IR&D goes toward pre-designing future products, or

towards polishing a rough products, or perhaps to subsidize key technology development proposal bids or to creating a lavishly produced proposal.

A small business's base for its own IR&D is of course small. It is unreasonable to expect it could support pre-designs of future products, polishing rough products, or substantially subsidizing the bidding process. The irony in the example I saw, the government likely had reimbursed that large company to produce the Hollywood production values movie about 'soldiers fording the stream' – and the actual products proposed already existed in the Government's fount of SBIR results. But the Prime did not use that technology base because it did not own it and by bidding it again, could re-create and own it. *My sense is that such well funded public relations efforts like the mocked up movie are quite appealing to selection committees and enhance the perception that the proposed product is ready to field when it usually is not.*

There is no practical SBIR Phase III transition program – Congressional funding with DOD user support used to be one way to fill the gap, but is now out of favor.

Product readiness for the military is defined by several criteria, including Technology Readiness Levels or TRL's. Roughly, TRL Levels 1-4 lead to initial prototypes, Levels 5-7 to Test and Evaluation (i.e. field ruggedness, salt-water resistant, drop testing and compatibility) while Levels 8-10 lead to the Fielding.

SBIR is funded by a small percentage allocation of an agency's existing "extra mural" R&D funds. This allocation funds Phases I and II of SBIR. A typical DOD SBIR Phase I and II would be about $800 – $900k and last of about 3 years. This level of effort results in a TRL Level 4 or 5, or a pre-production product. With the prototype in hand the product's potential value can be seen, but the required testing and integration into the military's materiel typically has not and could not have been done on this budget.

Typically, additional funding is required in order to field the product after the end of Phase II. In the past decade, it is not unusual to have had non-SBIR sourced "Phase III" funding come from congressional sources. It has made sense where the SBIR reached the prototype stage and where the DOD customer could assert, when asked, that the technology was an unfunded requirement and desired.

Congressional funding filled the minimum 5-year gap from pre-production demonstration to inclusion into the regular budget, or the POM. This is how robots that have to make IEDs inert were initially funded. This is how Cybernet's automated ammunition reclamation units that process the returned small arms ammunition in Kuwait and from military training ranges were purchased before they reached the POM.

The current freeze on such congressional funding has left DOD and SBIR companies in a lurch with no organized transition funding path. The gap or chasm between R&D and readiness for the military field is well recognized, and there is no identified funding process to meet those needs. Small businesses do not have large enough IR&D funds to self-fund, and DOD products can be unusual enough that traditional outside investors hesitate to invest. There is the potential that thousands of innovative problem solutions will remain on the shelf even though SBIR has paid for them. By the way, this is problem for all of the R&D elements that support the DOD including University research groups, small businesses, and the National and Service funded laboratories. *The DOD transition successes for strong small business have been in spite of a standard funding process.*

This gap has been recognized and a few programs to address the lack of transition funding process have been put in place. Several agencies have what is called CPP (Commercialization Pilot Programs). *CPP programs are addressing the right problem, but with subcritical resources that are more focused on creating commercial business success that meeting the soldier's urgent needs.* A new program, just off the ground is the DOD's RIF, Rapid Innovation Fund. It is divided into 4 parts: OSD and the 3 major agencies. The current funding released will support approximately only 6 SBIR Phase III projects in each agency. The RIF is also open to all comers, so thousands of proposals will likely be received for each opportunity and we will have to see if its processes and funding levels meet the transition need. We are concerned that focus of RIF kept on transitioning innovation projects and not to see the funds diverted elsewhere.

SBIR projects are "shovel ready" and stimulate both technical and non-technical jobs immediately when funded. These jobs have to be in the U.S. and they tend to be rooted in their communities.

We only fund just a small fraction of the efforts that are qualified for funding (the typical SBIR win rate at Phase I is only about 10%, Phase IIs 25%, and potential Phase III extensions through all transition programs are small enough that each is an "SBIR Success Story"). If you really want a "shovel-ready" stimulus for the high tech industry, fund more of these unfunded programs. They directly hire technical and non-technical people at a ratio of about 60% technical to 30% general business and non-technical. The funds will cycle into the economy immediately, and we have plenty of examples of how SBIR technology has revolutionized industries over the last couple of decades (SBIR drove service robotics, computer game and user interface technology, applications of mapping and GPS path planning, rugged computers, materials science, advanced battery technology, and host of other things). The small businesses don't always get the major market share, but they innovate IN THIS COUNTRY (i.e. only U.S. companies can get SBIR projects).

There is no effective plan to get SBIR technology into large acquisition programs.

Small Businesses often complain that they cannot get a "seat at the table" during the planning phase of a major new system. This is not surprising when the program planning is done at such a large scale, and probably happened five years ago (to get into today's POM). This is not to say that there are not instances where already developed SBIR technologies are used. There are often no effective advocates at the Prime contractors looking to utilize outside small businesses. A corporation's executives ought to be, and are obligated to, be looking out for the benefit of their own business, not someone else's business. I think there should be stronger guidance from the DOD customer, the party that writes the checks for SBIR, to push relevant SBIR technologies into programs wherever possible at the earliest stages of a new program so that the DOD gets what it is paying for. *Maybe DOD Primes should be directed to put some of their small business contracting goal dollars into funding into the SBIR – this would make them more vested while getting DOD small business small business subcontracting targets up. A related idea is that the subcontracting funds be used proportionately according to the statement of work, so that an advanced shipbuilding projects subcontracts so small businesses in Naval Architecture as well as to hull painters.*

The Defense contracting process is wasteful and capriciously uncertain.

As a more mature DOD small business we have sometimes had a seat at the table. Then we get a sample of the frustration that all sizes of government contractor have with the broken procurement system. One recent example is that we were asked by Boeing to bid on the Large Caliber Ammunition Resupply (LCAR) system – an automated ordnance magazine in an ISO container that could upload up to 400 shells to the Future Combat Systems (FCS) mobile mortar, tank, or artillery vehicle. We had (from SBIR) the only sensor that could automatically keep track of the kind of shells being uploaded and off-loaded in and out of the LCAR. *Our team, which included commercial automotive automation houses, won the bid on low cost and schedule only to see it evaporate because Boeing lost its FCS Prime contract.*

We worked closely with a Prime contractor on the Ground Combat Vehicle (GCV). The GCV competition was first launched at 11 AM on a Thursday in early 2010 at a AUSA meeting in Fort Lauderdale. I was there. The RFP release had been eagerly anticipated and would be newest major vehicle design for the Army. People left the room to phone in the news and to download the massive RFP. I would estimate that much of the Defense industry diverted significant engineering time and funds bidding that first GCV completion. I know we did. At a public forum in Michigan in the Fall of 2010, a panelist from one of the largest Primes commented that "30% of their engineering time had been spent on bidding GCV." The comment was made in light of the fact that after intense B&P work for large Primes and for small businesses like ours, the entire RFP was abruptly cancelled. And then it was replaced by a second RFP that was substantially the same as the first. *This delayed the entire process by over 8 months and cost the bidders another big outlay of money (we estimate Primes spent $30m+ and we ourselves spent more than $250k – a lot for any small business to bear "on spec".).*

Irrespective of the reasons, cancelling this first GCV meant that U.S. defense industrial base engineering talent at very large scales had been expended on a project that went nowhere. For the most part it ended up funded by the Government through ultimately reimbursed IR&D (i.e. wasted talent and U.S. Government money). In the second bid, three teams were expecting an award because that is what the Government procurer had indicated would happen. We

were taken aback when only 2 teams were announced when 3 had been widely anticipated. I remember talking to Dr. Malcolm O'Neill in between the sets of GCV RFPs who was confident that competition decreased ultimate costs by more than 10%. Having only 2 teams lessens the competition and it seems that the two contractors selected were the highest cost ones. With the consolidation so evident in the U.S. defense industry, where 37 large defense firms have collapsed into 5 over the span of 1993-2007, we have far less competition at the large Prime level today than we had less than 20 years ago. We've seen U.S. defense suppliers sold to foreign firms. *I fear that the DOD, as a customer, will suffer from the declining defense industrial and manufacturing bases. Less competition does not get the most cost effective bids, less competition decreases innovation because a safe strategy is to stay' within the box'.*

It was disheartening that our 2 years of significant efforts teaming on the GCV resulted in no work. Another negative competitive factor was that we had spent so much on the bid that our retrospective Overhead Rate determined with DCAA is now higher, meaning we are rates are less competitive and in turn, our work costs the Government more. Smaller businesses have less capacity to absorb large negative outcomes. We have a smaller "base" of work to spread our risk over. We hear a lot about concern over maintaining the defense supplier base – this is not how to do it.

We have spent significant effort working to obtain larger contracts. There is a rule that a company is down-rated to win a larger contract if the company has had no previous experience of having a larger contracts (a Catch 22). We saw this when we bid the early "small business set-aside" topics for FCS. We made the competitive range in all cases, went to final oral discussion, but didn't make that first round. It took three years of knocking to get the LCAR opportunity with Boeing and the Army, just to have it dashed by changes in the Army's priorities. *By the way, the logic of LCAR is that an empty howitzer is not a useful. The current motorized howitzer, Paladin, is done when it has spent 39 rounds (i.e. it is done in about 80 minutes of continuous fire). But when paired with a $125,000 LCAR robotic unit with 200-400 rounds on board, it can continuously fire. This makes one Paladin equivalent to up to 16 in a continuous engagement. Why did this capability go away with FCS – it saves money and makes the Army artillery more lethal.*

More mature Small Business still need SBIR because they are at a systematic disadvantage and actually benefit from their success less than the U.S. economy as a whole does.

Sometimes, we are asked why we still need SBIR. A straightforward answer is that even though small businesses innovate and have a big impact on the industrial base, they still don't get all the return on investment from what they accomplish. That is they still need help to keep doing new things. As an example, our company invented the robotic technology that powers force feedback game controls for Xbox, PS2/3 and others. We tried to commercially license it in the late 1990 when the market was young, but were only partially successful. The present day force feedback industry sells well in excess of $4 billion of product per year (Microsoft is probably in the $1 billion range alone), but our return from this innovation was about $16m over 10 years, about half of which we spent on self-funded IR&D for other technology leveraging our DOD work.

For instance, we sponsored our own DARPA Urban Challenge automated vehicle entry without the funding that some of the big universities and Prime contractors got from DARPA. Our car progressed to the last round and would have completed if there had been one or two more days testing time allotted in Victorville, CA. As is it is, we have some very interesting follow-on development work that combines our expertise in ordnance automation with automated driving. We are presently funded by the Army to productize automatically driven material handling equipment to remove personnel from the threat of handling live ammunition pallets. *Virtually all of the vehicle robotic technology available to the DOD is from small businesses that have done SBIRs – but none of these firms can compete on mainline robotics programs without a Prime contractor front under the current system. With few exceptions, we still need SBIR seed money to keep moving the technology forward. Even though we have 50+ robotic engineers (which is as large a group as any of the Primes and even the largest robotic labs in university) we still need new SBIR to continue to innovate.*

DOD and Government program "success" often does not align with what is defined as success in the venture capital community.

SBIR Phase III takes a product through the remaining DOD Technology Readiness Levels (TRL) for fielding or to commercial industry products. Depending on the type of product, it might be that some entity or investment group anticipates a large enough financial reward to approach the small business with a proposition to take the group's investment funds, and thus to "commercialize" the product through venture capital. In business, such an investment rarely occurs without guarantees to the outside investors and subordination of the founder group's interests to those of these investors. These terms may not necessarily favor all technologies that DOD is interested in pursuing and is at least sometimes counter to DODs interests.

While this might be a normal business model that works in the "commercial" world of big-box stores, medical sales to masses, or to biotech pharmaceutical firms that need tens of millions for clinical trials, the model of receiving outside investment does not work well for a niche technology defense contractor that has to develop a market for his/her product over a 5-10 year time frame (recall that getting into the POM takes at least 5 years from product introduction, 2-3 years after the first SBIR Phase). Our experience with even leading edge commercial technology, like force feedback, is that it take 10 years from concept to viable opportunities to license or sell (force feedback was started in 1988, patented in 1992, and first licensed to Microsoft in 1999).

DOD Phase III SBIR transitions are too few, and swamped with difficulties.

Some SBIR Phase III's are directly funded by DOD customers. We think that this should be more common than it is, because DOD SBIR requirements are set to meet DOD needs and so it should be only natural for success to be defined as meeting those needs. Cybernet has a successful Army Phase III is called "ATACS" Automated Tactical Ammunition Classification System" – informally known as "the ammo sorter" that began like this, from funds at the Defense Ammunition Center. The ATACS ammo sorter has saved the Army tens of millions of dollars over its 6 year life so far. It was not planned. It was a result of serendipity piqued by an urgent need in Kuwait motivated by the pile-up of turned-in ammunition being process by hand by expensive contractor personnel.

The ATACS ammo-sorter automates the process, speeds and improves a manual task that had been the standard practice for over 50 years. An urgent need in the field sparked the Commanding General in Camp Arifjan, Kuwait, to ask the question 'why not automate it' and 'has anybody else done it?' Ammo that had been out in the field that was not used or expended (i.e." live") could potentially be reissued to Soldiers, saving a great deal of money.

But doctrine / safety required an intensive hand inspection process. The hand inspection to return "good" ammo to service was entirely manual, the teaching materials dated from the 50's, it was painstakingly slow, and quite wasteful in the end. The watchword was: "When in doubt, throw it out."

This process was supervised by the Quality Control professionals (called QASAS) specific to Ammunition from the Defense Ammunition Center (DAC) in McAlester, Oklahoma, part of the Joint Munitions Command (JMC) in Rockville, Illinois.

The Army "found" Cybernet through a listing of an SBIR we were in process of performing for the Picatinny Arsenal in New Jersey. We had already built ordnance identification and inspection "bolt-on" to what would later be the FCS LCAR ordnance identification unit. We fixed digital cameras and lights in that bolt- on frame to read the mortar's markings and identify them by type (like a "munitions" supermarket barcode scanner).

The Army found us when the engineers at DAC performed a search to see if anyone was already using automation to assist in ammunition sorting and inspection.

Small Businesses are actually the heart of the American Defense industrial base which has to be preserved and protected.

It was about 7 years ago we received a phone call that we remember went something like this – "Hello, this is Sergeant .... We have a problem in Kuwait; can you help us fix it?" We were naturally surprised, but as engineers we asked that they describe the problem and send us specifications. We evaluated the problem, looked to our capabilities and to local automobile industry suppliers who

make conveyor belts and shaker tables, and cost estimated a plan to complete the project in 6 months. It was accepted and we began.

Then, the need for the item became more urgent, and we were asked to deliver in what would be 90 days after contract. This is also called "90 DAC" in contracting language. This is not a typo. It strains credibility to imagine designing, building, carefully taking apart, boxing and shipping a 6,000 lb custom robotic device to Kuwait, from scratch, in such a short time. *Small agile businesses like ours, with roots in the local economy have the fast reaction capability that the DOD often needs. I know from experience it has taken longer to get a Non-Disclosure Agreements signed at a large company. Even the 4 star General who often spoke about our product told me that he himself received pushback at the notion that it took only 90 days.*

To be clear, it was 90 days and nights and a two week employment process in Kuwait – including software programming on the way there in the airplane. The entire company pitched in. I contacted our current contracting officers and asked for no-cost time extensions on other contracts to free our staff up. I guaranteed a few people hunting season leave next year as an incentive. Engineers brought in futons and saved commuting time. One night (at 2:30 AM) close towards the shipping date I counted 13 people working on it. Clearly it strained us to the limit, but we were motivated, we knew the need was urgent, and we wanted to deliver for the Army customer.

Now, seven years later, the ATACS is still in use in Kuwait – it hit the Army POM two year ago but is still a year-by-year funded item. Additional units are at Fort Irwin at the National Training Center (NTC) in the Mohave Desert. We have had feedback that the machines are able to process the turned in rounds quickly enough after a training rotation that Soldiers who would have had to remain till the turn-in processing was complete are now able to spend more time at home. It's gratifying to know that.

We've also designed a self contained portable unit in an ISO shipping container and have plans to build a smaller "wheeled" transportable unit. A variation that inspects spent-brass to enhance income from the sale of that brass to recycling smelters has been built as well.

This is a very good example of what small businesses can bring to niche military needs. Part of the success of the ATACS was that it was a "stand-alone" activity. It was not an add-on component to a large submarine or helicopter for example so a small firm had a chance this time. Another part of our success is that it a small niche market overlooked by anyone else. Had the market for this invention been millions of units and billions of dollars, I am sure that we would have seen a lot of more competition, fair or otherwise, from large companies. Therefore the project was right-sized for a company like ours.

Preserving the industrial base is not just about the Defense industry.

Our geographic location in the automotive manufacturing area around Detroit allowed us to visit the machine tool shops we used, and to convince the owners (also small businesses) that our order needed prioritization. Our SBIR technology gave us the building blocks to quickly design and build the first-of machine. Note that this is a good example that in time of need, the supply base may very well be small businesses. *The industrial base, supported by the US automotive industry mostly, is still very important to making any kind of new machinery the defense department needs in the future, especially if it is needed rapidly.*

And, it wasn't just the allure of a hunting season time vacation leave, it was that our engineers have the skills to apply to such thorny problems and are good at it and enjoy it. The project leader at Cybernet has been to Kuwait a dozen times and to Afghanistan once. I myself have been to Kuwait three times. You do not often get that motivation from a larger firm environment.

We need to engender trust in Defense contracting more than we need adversarial contracting.

Making the bridge between our technological capabilities and the military's problem is the key. I believe it isn't quite right to ask the customer "What is your requirement?" It is easy to imagine that the customer does not have the technical framework to describe what the requirement is. What if the answer was about computing in the 60's? The requirement known to the current user is 'I need a better key punch-card machine.' Those users had never seen a mouse, a trackball or a gesture-interface. The better way is to say "What is your problem?" so we engineers can understand it and apply the best technology to solve it. A good

bridge between contractor and the DOD customer is key. *Putting contractors in an adversarial or difficult position make for sub optimal results.*

Earlier this year I gave a guest speaker at the Army War College at Carlisle Barracks, Pennsylvania. I described my company and our work. I detailed the ATACS with respect to the chapters in HTAR (How the Army Runs.) The class of 300 had just studied the Army's acquisition cycle and knew how complex the process is.

After my talk, I was swamped by compliments about my talk. *Many of the Soldiers (most were at the O6 level) told me they had never thought of contractors in a positive way before they heard my talk.* Many told me they didn't even know of small contractors like mine. I was glad to have made this talk and am hopeful that the cooperation I discussed between the Army and Cybernet in developing the ATACS becomes more prevalent. We are part of the team and need trust from Congress, the DOD and country to keep doing the right thing.

We need more flexible contracting dollars.

The ATACS technology, based on the SBIR, was too new to have been described in a 5 year old prior POM. In addition, the funds for the manual reclamation task were OMA (Operations and Maintenance Army) dollars and so the way our automation solved the problem with advanced technology could absolutely not be paid for by OMA dollars. Even so the cost benefits were so clear.

After the initial amount of R&D dollars the Army had found in swept-up funds was gone, we were left with no continuation funding. It took congressional interest so that the Army could continue the project over the next few years until it was officially POM'd. Now the device is part of the Army's catalog of standard APE (Ammunition Peculiar Equipment.)

We need more trust and collaboration between the agencies and Small business.

I credit the close collaboration we had with the Defense Ammunition center to the project's success. We needed to absorb the "schoolhouse" knowledge taught by the Army's ammunition Quality inspectors. We could not have travelled to Camp Arifjan, Kuwait, ourselves without our technical monitor from McAlester,

Oklahoma accompanying us. We went through significant paperwork to get permission to go, etc. We had active participation from the end-customer which helped us develop the most useful product for them.

We've had other less effective SBIR Phase I contract experiences. One program I recall we proposed and won against an RFP, which as usual, had only a few paragraphs of description. Soon after award, we wanted to meet with the customer to get more details, but we weren't allowed to have any contact with the technical POC. It turned out that there had been multiple Phase I winners. That agency was a "contractor-run" facility" so the contracting office was staffed with non-federal employee. One had decided that none of the awardees could talk to their shared technical point of contact for fear of unfair cross-talk. It made no sense to us. Surely there are solutions like all meeting together; sharing communications as would be done during question prior to an RFP release, etc. that could have been employed. We each completed our 6 month SBIR Phase I contracts in parallel, in a vacuum, and it is no surprise that no firm's project direction aligned with what the customer needed. What a waste of time and money!

The DOD has special requirements that drive advanced technology – but not always technology for immediate commercial return.

I'm often asked why Cybernet does not sell, for example, their computer vision systems resident in the "ammunition sorter" to factories. The answer is that sometimes we do – for instance, we are putting systems into a new polymer case ammunition manufacturing system derived from ATACS – But the military requirements are generally far more stringent than the "commercial" world's. Mixed lot identification of cylindrical objects in the field is more difficult than the computer vision recognition requirements for normal single production item in-process inspection. The factory machine's job is easier, it usually is single purposed, and it goes to the lowest bidder. If it makes bolts it does not pump out bolts and screws and sometimes thrown-in hand-made pieces of metal. Bolts come out of the bolt machine. We know the expected dimensions and specifications a priori. Our military solution is overkill and overcosted for a simple commercial setting.

The ATACS robotic inspection system we built for the Army in Kuwait is essentially over-kill for normal industrial customers. Consider putting any industrial automation system in a place where fine talcum powder consistency sand dust permeates everything, the temperature varied between 46 °F and 120 °F many days, and power goes up and down. The military has very specific needs and we as defense contractors strive to meet them.

We have built our business on niche, innovative, advanced military technologies and the occasional commercial spin-out license. Our group has many advanced degrees, with Ph.D.s and many Masters Degrees in a variety of topics - Computer Science, Electrical Engineering, Mathematics, Mechanical Engineering, Nuclear Engineering, and Physics and so on. Our company is defined as small, about 50 people total. When I founded the company, the largest of defense contractors were far smaller than they are now, and communication and potential collaboration easier. I remember visiting Martin-Marietta in Denver before it became part of Lockheed Martin. There have been mergers of Northrop and Grumman, Boeing and McDonnell Douglas, etc. *Consolidation of Defense Prime contractors impacts small businesses across the board. We compete against so much larger competitors than we did 10 years ago, and those large Primes possess so much more horizontal technology & marketing capabilities that they need not look outside their walls without a push.*

Conclusion

As a whole, the services do not have a good method or mechanism to transitioning innovative products to the military. DOD has successful Phase I and II programs creating TRL level 4 and 5 products, and then we companies are on our own. We can't sell the product at that stage. We can't find mainstream funding because our products are too new to have reached the POM and the option for congressional interest funding has vanished. The SBIR product still needs ruggedization, testing, evaluations, and certifications. The new RIF will transition only a small number of efforts. There needs to be a mechanism, a process to bridge the gap to insert SBIR technology into programs of record. Small business is an unrecognized, but vital part of the defense supply base and SBIR is *ALL* that keeps it available to the DOD. Keep SBIR, Keep SBIR strong. We *ARE*, as they say, 'shovel ready.'

Testimony of Ms. Heidi Jacobus, Chairman and CEO of Cybernet Systems Corporation on the merits of and deficiencies in the current SBIR program as applied to the Department of Defense

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OVERSIGHT OF THE SMALL BUSINESS INNOVATIVE RESEARCH (SBIR) PROGRAM

HEARING

BEFORE THE

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Senator ENZI [presiding]. Thank you, Mr. Busch. Ms. Jacobus.

STATEMENT OF HEIDI N. JACOBUS, CHIEF EXECUTIVE OFFICER, CYBERNET SYSTEMS CORPORATION, ANN ARBOR, MICHIGAN

Ms. JACOBUS. Good morning, Mr. Chairman and members of the Committee. Thank you for the opportunity to speak to you.

My name is Heidi Jacobus. I am the founder and the chief executive officer of Cybernet Systems in Ann Arbor, Michigan. Cybernet is a small business that uses high technology to amplify human performance, for example, with virtual reality training systems, robotics, and networked computer systems.

The SBIR program provided me the opportunity to take my Ph.D. thesis topic in computer science, to submit it, and to have it funded. The company started from one SBIR contract. I am confident Cybernet would not exist without this program. To have my proposal well received gave me the courage to quit my job, begin this business, which has over the past 10 years grown to over 50 professionals who have completed many successful contracts.

My family had no background in business. My immigrant mother could not speak English when I was born. In fact, neither of my parents finished high school. Both worked, sometimes two jobs, in factories. But they valued education. My education resulted from scholarships, work study, and my parents' sacrifice.

After grad school I married. My husband and I both worked at Texas Instruments and started our family. When the children started school, I needed something to do. I started volunteer work. But I wanted to do something more.

So I took a part-time job at the University of Michigan and I became aware of the SBIR program. I submitted a proposal based on my planned Ph.D. thesis topic. I can still remember the day I got a phone call from an ARPA Air Force Ph.D. colonel who called my proposal "the best he had ever read." I was thrilled. I was energized. And Cybernet began in my daughter's bedroom, after I moved her in with her younger brother.

The company thrived. The first year we grew from 1 person to 3 and then to 10. Cybernet now provides 60 people with good jobs. We deliver innovative results at hourly rates that are one-third to one-half the total price of larger firms.

We have many repeat customers. Our people are some of the best in their fields. The company has 5 U.S. Patents issued and more than 15 pending.

SBIR helped shape Cybernet as a company. While large companies can execute large projects, small firms like Cybernet often act as midwives between university research and larger companies. SBIR really helps support that role.

There are many resources, both State and national, to help small businesses. Individuals help, too. I was lucky to get Mr. Billy Jefferson as my first contracting officer at NASA. He did a terrific job guiding me as we worked through Cybernet's first NASA contract.

SBIR encourages people like Billy Jefferson to get the best technical value for his agency. However, no two small businesses are alike and we cannot apply a cookie cutter solution to business development, capitalization, or marketing.

Testimony of Ms. Heidi Jacobus, Chairman and CEO of Cybernet Systems Corporation on the merits of and deficiencies in the current SBIR program as applied to the Department of Defense

SBIR is a vital source of innovation funding to industry. We produce prototypes at lower costs. We make ideas real.

Cybernet produced its first robots in 1990 based on NASA's space station requirements. We produced the foundation for future consumer products. It took until 1997 for there to be major product offerings in this area. Now many companies are building products. This means SBIR sparked a whole new technology.

For another project, we built a series of command and control units for ARPA under Colonel Erik Mettala, Ph.D. from the Army, now retired. He asked Cybernet to design the product so that it could be funded through two Phase IIs. One was from the Army TACOM and one was from ARPA. The benefit is one SBIR can be used as leverage for another.

Based on this, we have developed a software product called NetMAX. We will introduce NetMAX later this month at the International Unix User's Conference in New Orleans. Without SBIR this, and other valuable products, could not have been funded in Michigan using venture capital or bank loans.

Cybernet would not have been able to grow without the opportunity from SBIR. We strongly support this program and would like it to continue.

Every company has its own story. Thank you, Senators, for the opportunity to tell ours.

Senator ENZI. Thank you very much for your testimony. It is always exciting to be at the small business panels where we hear from entrepreneurs that had the courage to take advantage of some of the Federal programs that are available and improve on them a little bit and put them into effect. So we are pleased to have all of you on this panel.

Mr. Busch, I am particularly pleased that you are on this panel and I appreciate the work that you do in Wyoming. When I was in the legislature, I was one of the people that did the original funding on EPSCoR which, of course, is the Experimental Program to Stimulate Competitive Research and it is kind of a tool that you use in your work.

I know that there are a lot of things in the program that are very beneficial but what we are trying to do is find out what kinds of changes would help the program, particularly from the aspect of those of us that have States that are under-represented in the grant process, and I know that is what you are trying to overcome. Could you give us some suggestions on things that we could be doing?

Mr. BUSCH. First of all, I think all of the small businesses that I associate with want the SBIR program to remain highly competitive. I think what the small businesses and the rural States want is access to the competition or a shot at the competition. That is what they really want.

I think, as I mentioned in my testimony, that outreach efforts are beneficial toward that end. States that have conducted outreach efforts for a number of years have clear dividends as a result of it. Kansas comes to mind, as an example. They have a very dramatic curve that Rich Bendis shows, showing the increase in the number of awards since they have initiated their SBIR outreach activities.

DISCLOSURE FORM FOR WITNESSES
CONCERNING FEDERAL CONTRACT AND GRANT INFORMATION

INSTRUCTION TO WITNESSES: Rule 11, clause 2(g)(4), of the Rules of the U.S. House of Representatives for the 112th Congress requires nongovernmental witnesses appearing before House committees to include in their written statements a curriculum vitae and a disclosure of the amount and source of any federal contracts or grants (including subcontracts and subgrants) received during the current and two previous fiscal years either by the witness or by an entity represented by the witness. This form is intended to assist witnesses appearing before the House Armed Services Committee in complying with the House rule.

Witness name: Heidi N. Jacobus

Capacity in which appearing: (check one)

___Individual

_X__Representative

If appearing in a representative capacity, name of the company, association or other entity being represented: Cybernet Systems Corporation, Founder & CEO

FISCAL YEAR 2011 CONTRACTS

federal grant(s) / contracts	federal agency	dollar value	subject(s) of contract or grant
W15QKN-11-C-0019	Army	$ 69,950	Closed Loop Fire Control (Ballistics Simulation)
N00164-06-C-6002-0011	Navy	$ 1,994,188	Sustainment Wireless Maintenance Asst. SWMA
W9113M-11-C-0028	Army	$ 69,910	Cyber-Security USB Firewall
N00167-11-P-0183	Navy	$ 149,919	Long Distance Remote Maintenance Capability
N00014-11-M-0234	Navy	$ 149,838	Low Power UUVs (Unmanned Underwater Vehicles
W900KK-11-C-0021	Army	$ 99,963	Non Line of Sight (NLOS) Weapon Orientation
NNX11CB59C	NASA	$ 599,623	Automated NDE (Non Destructive Evaluation) Flaw Mapping System
W81XWH-10-C-0164	Army	$ 749,856	MedOne Interconnect for OneSAF (Simulation)
W81XWH-11-C-0109	Army	$ 149,920	Kinect(Gesture Recognition) Soldier Virtual Interface

FISCAL YEAR 2011 CONTRACTS, continued

W912DY-07-D-0008-0008	Army	$ 628,646	ATACS (Ammunition Sorter)-Task Order 0008
W912DY-07-D-0008-0009	Army	$ 184,842	ATACS (Ammunition Sorter) - Task Order 0009
NBCHC090042	DHS	$ 99,998	Cybersecurity Hard Drive Unlocking
FA9201-09-C-0147	Air Force	$ 99,891	Disposable Sensors for Directed Energy Test & Evaluation
W91RUS-09-C-0034	Army	$ 711,512	Radio Simulation

FISCAL YEAR 2011 SUB- CONTRACTS

STM1213705	Alion/ Army	$ 2,000,000	Automated Forklift
PCS-F2234-CSC-01	SeaLand-Aire/ Navy	$ 15,000	Compact Rivervine AUV (Autonomous Unmanned Vehicle)
PO 110203	Veraxx/ Navy	$ 86,271	Information Assurance for CH-53E CFTD
PO-11-0263CO1	Saab/ Army	$ 75,000	Information Assurance for LT2-IRS (SAAB Training)
PO 110601	Veraxx/ Navy	$ 19,069	Information Assurance for MV-22 CFTD #1

FISCAL YEAR 2010 CONTRACTS

federal grant(s) / contracts	federal agency	dollar value	subject(s) of contract or grant
N00024-10-C-4120	Navy	$ 593,809	Automated System Test and Repair Tool
FA8650-10-M-1776	Air Force	$ 99,979	Autonomic Knowledge Representation
NNX10CE66P	NASA	$ 99,953	Automated NDE Flaw Mapping System
NNX10CE36P	NASA	$ 99,900	Automated Autonomy Assessment System
W912DY-07-D-0008-0010	Army	$ 419,878	ATACS (Ammunition Sorter) Task Order 0010
NNX10CA16C	NASA	$ 598,688	Small Satellite Analysis Laboratory
FA8750-10-C-0113	Air Force	$ 99,547	Automatic Artificial Diversity for Virtual Machines
FA8750-10-C-0059	Air Force	$ 99,739	Cybersecurity Secure Browser
FA9302-10-M-0002	Air Force	$ 99,987	Multispectral Desert Fauna (Surveillance)
W81XWH-10-C-0164	Army	$ 99,956	MedOne Interconnect for OneSAF Simulation
N68936-10-C-0069	Navy	$ 79,991	Shearography Motion Correction
N10PC20114	DHS	$ 749,948	Telecommunications
060803 360384 01	Army	$ 2,861,071	Virtual Systems Integration Laboratory
NNX10CB01C	NASA	$ 599,441	Automated Behavior and Cohesion Assessment Tools
NNX10CA94C	NASA	$ 598,464	Grasp Algorithms For Opto-tactile Robotic Sample Acquisition

FISCAL YEAR 2010 CONTRACTS, continued

N68936-10-C-0115	Navy	$ 69,835	Terminal Guidance for Autonomous Aerial Refueling
N00167-10-F-0090	Navy	$ 99,889	Sustainment Wireless Maintenance Assistant. SWMA GSA
W912DY-07-D-0008-0011	Army	$ 880,405	ATACS (Ammunition Sorter) Task Order 0011
N61339-10-C-0045	Navy	$ 343,616	LCS Information Assurance
W15QKN-10-C-0121	Army	$ 868,380	Automated Forklift

FISCAL YEAR 2010 SUB CONTRACTS,

federal sub contracts	To fed. agency	dollar value	subject(s) of contract or grant
PO 90911	Veraxx/ Navy	$ 2,879,745	Cybersecurity IA/ADVTE
PO A81760	Cubic/ Army	$ 24,502	IA/Alaska Training Range Evolution Program (ATREP)
PO A81882	Cubic/ Army	$ 22,234	Cybersecurity IA/MILES-TVS
PO 100407	Veraxx/ Navy	$ 63,946	Cybersecurity IA/MV-22
PO 100703	Veraxx/ Navy	$ 83,004	Cybersecurity IA/CH-53
PO 90911	Veraxx/ Navy	$ 2,879,745	IA/USMC ADVTE 'ATO' Authority to Operate Currency
A84750	Cubic/ Army	$ 252,702	Cybersecurity IA/MILES TVS

FISCAL YEAR 2009 CONTRACTS

federal grant(s) / contracts	federal agency	dollar value	subject(s) of contract or grant
NBCHC090001	DHS	$ 99,967	Telecommunications Linking System
NNX09CC45P	NASA	$ 99,971	Procedure Execution and Projection System
NNX09CD93P	NASA	$ 99,960	Grasp Algorithms For Optotactile Robotic Sample Acquisition
NNX09CC31P	NASA	$ 99,956	Small Satellite Analysis Laboratory
NNX09CD79P	NASA	$ 99,823	High-Speed FPGA Image Decoder
NNX09CE35P	NASA	$ 99,939	Automated Behavior and Cohesion Assessment Tools
N100167-09-F-0038	Navy	$ 100,000	SWMA
W900KK-09-D-0411-0001	Army	$ 2,500	STOC-II Full and Open
W900KK-09-D-0574-0001	Army	$ 2,500	STOC-II Small Business Set Aside
N61339-09-C-0022	Navy	$ 749,882	High Res HMD
W91RUS-09-C-0024	Army	$ 49,688	Radio Simulation
W912DY-07-D-0008-0008	Army	$ 628,646	ATACS - Task Order 0008
W912DY-07-D-0008-0009	Army	$ 184,842	ATACS - Task Order 0009
NBCHC090042	DHS	$ 99,998	Hard Drive Unlocking
FA9201-09-C-0147	Air Force	$ 99,891	Disposable Sensors for Directed Energy Test & Evaluation
W91RUS-09-C-0034	Army	$ 711,512	Radio Simulation

Federal Contract Information: If you or the entity you represent before the Committee on Armed Services has contracts (including subcontracts) with the federal government, please provide the following information:

Number of contracts (including subcontracts) with the federal government:

Current fiscal year (2011): **14**;
Fiscal year 2010: **27**;
Fiscal year 2009: **17**.

Federal agencies with which federal contracts are held:

Current fiscal year (2011): **Army, NASA, Navy**;
Fiscal year 2010: **Air Force, Army, DHS, NASA, Navy**;
Fiscal year 2009: **Air Force, Army, DHS, NASA, Navy**.

List of subjects of federal contract(s) (for example, ship construction, aircraft parts manufacturing, software design, force structure consultant, architecture & engineering services, etc.):

Current fiscal year (2011): Software, Modeling & Simulation, Image Analysis, Small Caliber Ammunition Sorter, Cybersecurity Hardware, Non-Destructive Evaluation (NDE), Unmanned Underwater Vehicles R&D, Information Assurance, Hardware, Robotics, R&D

Fiscal year 2010: Software, Modeling and Simulation, Image Analysis, Robotics, Information Assurance, Cybersecurity, Telecommunication Data Mining, Automated Forklift, Small-Caliber Ammunition Sorter (ATACS) , Information Assurance (IA), Hardware, R&D

Fiscal year 2009: Software, Modeling & Simulation, Image Analysis, Small-Caliber Ammunition Sorter (ATACS), Sensor Design, Cybersecurity, R&D, Robotics

Aggregate dollar value of federal contracts held:

Current fiscal year (2011): 6,228,507;
Fiscal year 2010: 15,668,354;
Fiscal year 2009: 3,229,075.

Federal Grant Information: If you or the entity you represent before the Committee on Armed Services has grants (including subgrants) with the federal government, please provide the following information:

Number of grants (including subgrants) with the federal government:

Current fiscal year (2011): **None**;
Fiscal year 2010: **None**;
Fiscal year 2009: **None**.

Federal agencies with which federal grants are held:

Current fiscal year (2011): _____;
Fiscal year 2010: _____;
Fiscal year 2009: _____.

List of subjects of federal grants(s) (for example, materials research, sociological study, software design, etc.):

Current fiscal year (2011): _____;
Fiscal year 2010: _____;
Fiscal year 2009: _____.

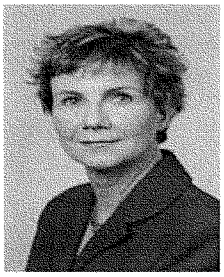
Aggregate dollar value of federal grants held:

Current fiscal year (2011): _____;
Fiscal year 2010: _____;
Fiscal year 2009: _____.

HEIDI N. JACOBUS

CHAIRMAN AND CEO

M.S. (Computer Science — Human-Computer Interaction) University of Illinois, Urbana
B.S. (Psychology) Trinity College, Hartford, Connecticut



Heidi N. Jacobus has more than 20 years of experience with interactive computer systems. Before founding Cybernet Systems, she held an appointment at the University of Michigan's Center for Ergonomics, which was funded under a Chrysler Technology Access Fund contract to study graphical displays used in Computer-Aided workplace Design (CAD) systems. She was also a member of the technical staff at Texas Instruments, Inc., where she developed man-machine interfaces for naive users and developed interactive teaching systems. At the University of Illinois, she investigated the use of color displays for fault-diagnosis applications. While at the University of Illinois, Ms. Jacobus received an award for "Excellence in Undergraduate Teaching." Prior to that, she worked to develop interactive PLATO teaching systems that introduced beginning FORTRAN programming and operated the Computer Aided Instruction facility at the University of Connecticut Health Center.

Ms. Jacobus was elected to the Board of Directors of the National Center for Manufacturing Sciences (NCMS). She also served on the board of the Robots in Hazardous Environments (RHE). She is one of 20 charter members of the National Employers Leadership Council (NELC), which provides industrial perspective and support to the Secretaries of Labor and Education on work-force issues for future jobs. She also serves on the board of the Small Business Technology Coalition.

Ms. Jacobus has had the honor of election to the Cosmos Club (Washington, D.C.) and was recognized by Crain's Detroit Business as one of the most influential women in Michigan. She was also a recipient of the prestigious "2003 Top Michigan Women in Computing" award, which honors women who play leadership roles in Michigan, demonstrate significant accomplishments in their careers, and act as a positive role model for women.

DOCUMENTS SUBMITTED FOR THE RECORD

SEPTEMBER 20, 2011

House Committee on Armed Services
Panel on Business Challenges within the Defense Industry
Organizational Plan

Panel Members

Bill Shuster, PA, Chairman
Bobby Schilling, IL
Jon Runyan, NJ
AllenWest, FL

Rick Larsen, WA, Ranking Member
Betty Sutton, OH
Colleen Hanabusa, HI

Rules and Procedures

The panel is constituted under Rule 5(a) of the rules of the Committee on Armed Services to serve for a period of six months beginning on the date of its organization, September 12, 2011. The Chairman of the Committee has the discretion to reappoint the panel for a period of time that may extend to an additional six months.

The panel will follow the rules and procedures of the House Armed Services Committee, as adopted by the Committee for the 112th Congress, in all of its meetings, hearings, and other activities.

The panel has been tasked to examine the current defense business environment and to seek to understand how the Department of Defense (DOD) could spur innovation, competition, and cost savings by encouraging new entrants into the industrial base and fostering the transition of technology. Although it does not have legislative jurisdiction, the panel will report its findings, including any recommendations for possible legislation, to the Committee.

Staffing

The panel will be assisted by staff of the House Armed Services Committee designated by the Chairman and Ranking Member of the Committee for this purpose.

Work Plan

The panel will examine the current defense business environment to identify (1) contracting or regulatory issues facing the defense industry; (2) the use of incentives and mandates to meet goals; (3) structural challenges facing various sectors within of the industrial base, including universities and research institutes; (4) impact of the current fiscal environment on the health of

the defense industry, at both the prime and subcontractor levels; and (5) opportunities to reduce barriers to entry.

In examining business challenges within the defense industry the panel will focus on five primary areas:

- The use of incentives and mandates to shape the defense business environment
  - Are there incentives to be entrepreneurial and/or innovative?
  - What is the intent of mandatory set-asides? Are mandates having the desired effect? Does the Department meet the requirements/goals of these programs? How does verification work at lower subcontract tiers?
  - Do set-aside programs disincentivize growth because companies don't want to grow out of being "small"?
  - How does contract bundling reduce competition?

- Barriers to transitioning technology
  - What challenges do smaller firms have getting beyond research and development and into test and integration?
  - Does DOD aversion to risk hamper initiative and innovation in industry?
  - Do financial limitations hamper industry's ability to transition technology?
  - Are non-traditional firms marginalized in the business industry, and if so, what are the causes?

- Impact of regulation/standard contract clauses and associated enforcement on defense businesses
  - Is there sufficient flexibility to allow appropriate application on small business?
  - Is there lack of awareness/training in such application for DOD and contract oversight agencies?
  - Are requirements too burdensome to attract new entrants?

- The role of universities and government laboratories in terms of spin outs, technology transition, and partnering with small businesses.

- Economic projections and access to capital for defense businesses.

In addition to these matters, the panel may examine other issues related to business challenges within the defense industry at the request of the Committee's Chairman with the concurrence of the Committee's Ranking Member.

WITNESS RESPONSES TO QUESTIONS ASKED DURING THE HEARING

SEPTEMBER 20, 2011

RESPONSE TO QUESTION SUBMITTED BY MR. LARSEN

Mr. HODGKINS. [The information was not available at the time of printing.] [See page 25.]

QUESTIONS SUBMITTED BY MEMBERS POST HEARING

SEPTEMBER 20, 2011

QUESTIONS SUBMITTED BY MR. SCHILLING

Mr. SCHILLING. How can we help industry deliver vital innovation and cutting-edge solutions?

Mr. HODGKINS. [The information was not available at the time of printing.]

Mr. SCHILLING. What measures can we take to ensure that the best and brightest our national STEM [science, technology, engineering, mathematics] efforts have to offer find opportunities inside the national defense industrial base, and overall national industrial base?

Mr. HODGKINS. [The information was not available at the time of printing.]

Mr. SCHILLING. United States manufacturing exports create good technology jobs across the country. What can be done to support foreign military sales that benefit job growth and make the U.S. industrial base more competitive globally?

Mr. HODGKINS. [The information was not available at the time of printing.]

Mr. SCHILLING. How can we help industry deliver vital innovation and cutting-edge solutions?

Mr. SMITH. I am answering this question from the vantage point of a Federal professional services provider who has primarily supported clients in the science and technology (S&T) domain. Strategic Analysis Inc. (SA) is lucky enough to have been part of many programs and contracts that have delivered vital innovation and cutting-edge solutions as: A consultant to the Government, advising on the ideas and efforts of other businesses and organizations, both large and small; and as a developer of innovation and cutting-edge solutions ourselves.

The challenges to delivering innovation begin with simply trying to "get in the door" to understand the needs of a Federal client or identify if a technology or idea could apply or be useful to a Federal client. When my company started, companies had the ability to offer innovative ideas to potential buyers of services. Government managers that sought contractor support were willing to discuss their requirements as well as to listen to innovative ideas, tools and methodologies. Companies such as mine were willing to offer proprietary approaches hoping that the discussion might lead to procurement opportunities and knowing that their innovations would be protected from competitors.

Today, discussions with program managers are limited any time a procurement is anticipated. New contracting constraints are being practiced and concerns of unfair competitions that could lead to a protest have resulted in limited scope Task Orders that are awarded on a lowest-price technically acceptable basis with no room (both within the scope of individual Performance Work Statements and the overall scope of the base contract) to do more than what is "technically acceptable." Contracting officers are very reluctant to have the program managers entertain innovative ideas for fear that it would give a company a competitive advantage. The approach is either to communicate the entire discussion between the program manager and the contractor, compromising any proprietary information discussed, or to prevent the discussion from occurring altogether. Overall, companies have become more in the dark on what their clients might need and more reluctant to share their ideas. Many companies now worry that ideas discussed will be compromised during the procurement process. This concerns companies because they might no longer have the differentiator that wins the next award.

In general, the conversations not only need to be allowed but even encouraged. To level the playing field, the process has to be open to everyone and each organization needs to identify a process for keeping ideas coming in the door. This does not mean just more industry days. It means allowing companies the opportunity for 1-on-1s prior to finalizing any particular solicitation. This also could include easier base access, open access to program managers and/or their staff representation, and training, when needed, of individuals involved with a procurement. The U.S. Government should allow for the opportunity to discuss innovations without fear of compromise during the procurement process.

For 25 years as a consultant to the Government, SA has provided advice and expertise that has supported decisions by the Government to fund, not fund, continue funding or terminate programs and projects that develop the next generation of technologies. One of the greatest challenges for moving new technology from the

R&D phase to the hands of the operators is technology transition. Many technologies do not find an operational home because of a mismatch of what the operational community needs or wants and what they get. What we believe will help is to continue to increase the number of opportunities to expose industry, academia and other Federal organizations to the end-user to provide them with the opportunity to understand what is really needed. The DOD should facilitate meetings with DOD users to understand gaps (there are very few DOD organizations that facilitate face-to-faces with the decision makers); and provide visibility of funding to help a small business know where to focus. The SBIR and STTR programs are invaluable in this regard with early seed money as well as funding through TRL 4.

Internally, SA has also developed cutting-edge solutions. We have done so for two reasons: To develop innovations that reduce the cost of services while not diminishing vital mission support such as through business process re-engineering; and developing solutions that answer technical problems our clients are trying to solve including submitting ideas through Federal BAA and SBIR programs. Government services contractors can be a significant contributor to innovation if allowed to do so through the procurement system. But, there are now significant deterrents to innovation within the DOD acquisition system for professional services, such as those imposed as a result of new contracting practices and organizational conflict of interest (OCI) implementations.

For a service provider such as my company, innovation can be a key differentiator among the many companies competing for work. We have developed innovations internally primarily through independent research and development (IR&D). To do so, we have looked at our client needs and have identified modest investments that solve or try to solve specific problems that they have expressed to our employees. We are small, but we have exceptional people in support of our clients. They see opportunities for improvement. We are not contractually tasked with such IR&D. We do it in order to add value to our clients. Our solutions have included innovative office automation approaches and tools tied to the specific business processes of the offices where we work. All in all, we have tried to capture the best ideas from our staff. Our clients have found the result of such investments quite valuable. Innovative solutions can be achieved through changes in business processes, through creative re-engineering of an organization and through the introduction of new "solutions."

The challenge that we have recently encountered is the difficulty in providing such innovations under the contract that it was identified for. We are finding that in order to help our clients by offering solutions, we have to provide the solutions under an entirely different contract vehicle. We believe the contracting environment has become hypersensitive on compartmentalizing functions to the point of deterring new ideas or pursuit of the "best" ideas. Further, we have become reluctant to invest in innovation as it no longer can be a discriminator in contract awards. The requirements for services have become stylized descriptions of labor categories and the competitions become all about the lowest price offerings, leaving, once again, no room or rewards for innovation. We recommend strongly that, in S&T environments, lowest-price contracting strategies be avoided because you will get what you pay for. Additionally, we believe all contracts should put in place options for innovation even if not funded on Day 1.

SA has and continues to develop ideas through the Federal BAA and SBIR programs. When a conflict of interest poses a threat to the viability of the idea, SA has either spun off an R&D company or terminated the pursuit. Spinning off small subsidiaries in specific technology areas and facilitating their success through investment has enabled the technology to be investigated free of any restrictions. Even as a small company, we have employed this approach, sometimes successfully; sometimes not. In each case, the seed of the technical innovation was an employee with an idea and the motivation to carry it further. Our innovations have included software, advanced sensors, renewable energy study methodologies and novel materials ideas. Two of the companies remain viable today. There has been one business that had to be closed because of OCI issues in a zero-tolerant environment to affiliates.

OCI is one area that has become much more restrictive to companies providing both technical consulting and developing technical solutions to the same clients. While a clean line reduces even the appearance of impropriety, it also may prevent ideas from being fully explored. Companies will simply not invest their intellectual capital on a path that might lead to a contract that has the appearance of an OCI concern. They see no return on their investment. For a small business with a limited set of clients in their portfolio and a limited set of assets, hitting a dead end with a client because of a possible OCI could mean death to the idea. We have many smart people with good ideas that will lay dormant over this concern.

Mr. SCHILLING. What measures can we take to ensure that the best and brightest our national STEM [science, technology, engineering, mathematics] efforts have to offer find opportunities inside the national defense industrial base, and overall national industrial base?

Mr. SMITH. We believe that the STEM issue is a National Security issue. Without a workforce properly trained in STEM domains, we will not have the warfighters needed to defend our Nation on the next generation of battlefields, battlefields that include the cyber domain. Industry has always been challenged with providing a workforce that supplements the Federal Government's workforce providing expertise that can ebb and flow with the fluctuations of needs. Industry has just as much interest in addressing the STEM negative trend as the Federal Government. Industry invests in training, education and charitable contributions to STEM initiatives. Industry organizations such as NDIA and WID have implemented scholarship programs and funded and supported initiatives in the different communities where their chapters reside. Businesses have also put aside hundreds of thousands of dollars towards STEM initiatives nationwide including scholarships and grants. Competitions, conferences, classroom lectures and financial donations to schools are all ways that industry is addressing this issue. The Department of Defense has significant ongoing programs aimed at fostering STEM education. The DOD Science, Technology, Engineering, and Mathematics (STEM) Development Office focuses on education and outreach to inspire, develop, attract, and retain highly-qualified, diverse, world-class STEM talent to meet the DOD and the Nation's current and future complex scientific and technological challenges. Many such programs fall under the National Defense Education Program (NDEP), outlined below.

- **K–12 teachers and students:** NDEP's K–12 Programs tap into educational innovation. NDEP has cast a nationwide net in search of some of the best and most innovative K–12 science and engineering education initiatives in the country.
- **Undergraduate and graduate students:** The Science, Mathematics And Research for Transformation (SMART) Scholarship for Service Program supports undergraduate and graduate students pursuing degrees in STEM disciplines. The program aims to increase the number of civilian scientists and engineers primarily working at DOD laboratories.
- **World-class university researchers and their students:** The National Security Science and Engineering Faculty Fellowships (NSSEFF) program provides extensive, long-term financial support to distinguished university faculty and staff scientists and engineers to conduct unclassified, basic research on topics of interest to DOD.
- **R&D programs aimed at STEM:** There are also R&D programs to develop tools and techniques in support of STEM education. The DARPA Computer Science in Science, Technology, Engineering, and Mathematics Education (CS–STEM) program is an example.

With all things being equal, the solution, we believe, resides somewhere in the collaboration of Government and the defense business sector. The U.S. Cyber Challenge Coalition is a great example of how Industry and the Federal Government can successfully partner to tackle one area of the STEM domain without the "your money" or "my money" driving the dialogue. However, one partner that is not apparent in many initiatives is the educators and educational administrators. The educational domain has to be part of any solution, idea or initiative that is proposed. In the end, the teachers and other educational professionals carry the weight of any successful model every day and they should be enlisted to fight this battle. We believe DOD should increase its emphasis on fostering enthusiasm and interest in STEM at an early age. Research is clear that the earlier one can reach a child in their educational development, the more lasting the effect. In fact, our family feels so strongly that more needs to be done in this area that we started a non-profit organization in 2010 that is beginning a research and mentorship thrust in middle school STEM education, The Leadville Institute. This organization has starting by supporting specific STEM programs in the two communities where we are located, Arlington, VA, and Colorado Springs, CO. We are taking small steps in 2011, with aspirations to gain broader support from the defense industrial community, particularly small and midsize companies.

So what more can DOD undertake? DOD and its contractor base should be partners in local communities across the country. A coordinated outreach and mentorship program would pay significant dividends in addressing emerging defense workforce gaps. The huge projected shortcoming in computer sciences is such an area. We recommend initiatives that reach middle school students and include participants from both Government and the private sector. DOD might find unique

ways of challenging youth such as through "Grand Challenges," focused games, online games like FoldIt.it and technical competitions. Many such competitions exist on a national scale. We need competitions aimed at younger students, as well. There is a critical need to reach younger children—give them a challenge to overcome and then empower them with a sense of ownership in their successes.

Mr. SCHILLING. United States manufacturing exports create good technology jobs across the country. What can be done to support foreign military sales that benefit job growth and make the U.S. industrial base more competitive globally?

Mr. SMITH. Since my company is a service provider, not a manufacturer, with facilities and staff all located inside the CONUS, I cannot provide any personal experience or analysis to fully address this question.

Mr. SCHILLING. How can we help industry deliver vital innovation and cutting-edge solutions?

Ms. JACOBUS. [The information was not available at the time of printing.]

Mr. SCHILLING. What measures can we take to ensure that the best and brightest our national STEM efforts have to offer find opportunities inside the national defense industrial base, and overall national industrial base?

Ms. JACOBUS. [The information was not available at the time of printing.]

Mr. SCHILLING. United States manufacturing exports create good technology jobs across the country. What can be done to support foreign military sales that benefit job growth and make the U.S. industrial base more competitive globally?

Ms. JACOBUS. [The information was not available at the time of printing.]

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