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HEARING

ON

NATIONAL DEFENSE AUTHORIZATION ACT FOR FISCAL YEAR 2016

AND

OVERSIGHT OF PREVIOUSLY AUTHORIZED PROGRAMS

BEFORE THE

COMMITTEE ON ARMED SERVICES
HOUSE OF REPRESENTATIVES

ONE HUNDRED FOURTEENTH CONGRESS

FIRST SESSION

FULL COMMITTEE HEARING

ON

MEMBER DAY—NATIONAL DEFENSE PRIORITIES FROM MEMBERS FOR THE FISCAL YEAR 2016 NATIONAL DEFENSE AUTHORIZATION ACT

HEARING HELD
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MEMBER DAY—NATIONAL DEFENSE PRIORITIES FROM MEMBERS FOR THE FISCAL YEAR 2016 NATIONAL DEFENSE AUTHORIZATION ACT

HOUSE OF REPRESENTATIVES,
COMMITTEE ON ARMED SERVICES,
Washington, DC, Tuesday, April 14, 2015.

The committee met, pursuant to call, at 10:02 a.m., in room 2212, Rayburn House Office Building, Hon. William M. "Mac" Thornberry (chairman of the committee) presiding.

OPENING STATEMENT OF HON. WILLIAM M. "MAC" THORNBERRY, A REPRESENTATIVE FROM TEXAS, CHAIRMAN, COMMITTEE ON ARMED SERVICES

The CHAIRMAN. The committee will come to order.

The distinguished acting ranking member, Mrs. Davis, is on her way, but I understand it's fine for us to go ahead.

The House Armed Services Committee meets today to receive testimony from Members of Congress on their national security priorities for the fiscal year 2016 National Defense Authorization Act.

Just a quick note about format today. In consultation with the ranking member, we will depart from our regular questioning process. Each witness will have 4 minutes to testify.

Members of the committee who then want to ask clarifying questions will raise their hand or make their interest known to the staff and they will be yielded 2 minutes each, for a maximum of 4 minutes for each witness. This will ensure that we can get through all of our witnesses today. And as this hearing is intended to be primarily a listening session, it is not my intent to engage in extended debate on various issues.

We look forward to today's testimony and certainly thank our distinguished colleagues for their advocacy on behalf of our troops and our national security.

First up today is the gentlelady from Tennessee, Mrs. Blackburn, who is recognized for 4 minutes.

STATEMENT OF HON. MARSHA BLACKBURN, A REPRESENTATIVE FROM TENNESSEE

Mrs. BLACKBURN. Thank you, Mr. Chairman and members of the committee. I want to thank all of you for allowing Members of the House to come and testify on these issues of importance.

As many of you know, I represent the Seventh Congressional District of Tennessee, which is home to the brave men and women of Fort Campbell. Yes. And Ms. Wagner is going to cheer because her son is one of those brave men. Fort Campbell is home to the storied 101st Airborne, the 5th Division and the Army's 160th Spe-

cial Ops Aviation Regiment. Nearly 1,900 officers and 26,500 enlisted personnel call Fort Campbell home.

Like many installations across the country, Fort Campbell is facing reductions that will have an impact on military readiness programs. I was pleased to work with this committee last year in support of the Army Flying Hours Program.

This vital program provides aviation training resources for individual crew members and units according to approved aviation training strategies. In addition, it also provides individual and collective proficiency in support of ongoing combat and non-combat air operations.

For aviation units like the 101st, this training is not only vital to mission success, but to the safety of our personnel. Due to Army budget restraints, Army aviators will only be provided with 9.3 hours of training per crew per month. This is below the recommended increase to 11.3 hours of training per crew per month.

Currently, the Active Army combat aviation brigades have a $55 million shortfall in meeting 100 percent of their critical requirements. Without the necessary funding, home station training opportunities will not be available to achieve optimal combat readiness.

I ask the members of this committee to once again pay close attention to restoring the Army Flying Hours Program to its full capacity in fiscal year 2016.

I would also like to bring to this committee's attention the further reduction of our Armed Forces and how this will hamstring our ability to meet the challenges and the threats that we see in an increasingly destabilized world.

As America withdraws from the international community, countries like Russia are becoming increasingly brazen. We see it in the annexation of Crimea by Russian-backed separatists, civil war in Yemen and Syria, and China's military buildup.

As the discord continues to grow around the world, the U.S. must have the personnel and the capabilities to respond. If Fort Campbell is required to reduce its Active Duty personnel from 26,500 to 16,000, I worry about our ability to defend ourselves from threats and to project power internationally.

Fort Campbell is already one of the most heavily deployed bases in the country. If it suffers a troop reduction, it is going to be felt, and it will matter to our Nation. When Ebola was spreading through West African countries, it was 700 soldiers from the 101st Airborne Division at Campbell that were deployed to build medical facilities and contain the outbreak.

In the spring, 700 more soldiers from the 101st will be deployed to Afghanistan. Soldiers from Fort Campbell are always tapped with response to threats made against our security around the globe.

Thank you for allowing me to testify this morning. I stand ready to work with this committee on strengthening programs and reviewing processes that are vital to our Nation's defense.

I yield back my time.

[The prepared statement of Mrs. Blackburn can be found in the Appendix on page 47.]

The CHAIRMAN. I thank the gentlelady.

Are there any questions of Ms. Blackburn?

If not, thank you. Appreciate your comments and appreciate your input.

Next we will have the gentlelady from Missouri, Ms. Wagner, to testify.

Thank you for being with us this morning. The gentlelady is recognized for 4 minutes.

STATEMENT OF HON. ANN WAGNER, A REPRESENTATIVE FROM MISSOURI

Mrs. WAGNER. Thank you. Thank you very much.

Members of the committee, I want to first extend my appreciation for the work that you do. As a proud mother of a son who is a West Point graduate and does presently serve in the United States Army [inaudible—mike not on] 101st Airborne's captain's bars this month, I should say proudly. And I represent thousands of constituents that wear the uniform.

I know firsthand the importance of this committee's work for our national security as you begin to debate our defense priorities for the coming fiscal year. Thank you for the opportunity to talk about a key defense priority for the United States Navy and our Nation, the F/A–18 Super Hornet.

The past 2 years I have become very familiar with the Navy's tactical aviation capabilities. Last year this committee responded to the Navy's requirement for more electronic attack capabilities by providing five EA–18G Growlers in the fiscal year 2015 National Defense Authorization Act [NDAA].

Congress then added 10 additional Growlers on top of that during the appropriations process, and those aircraft will provide a warfighting capability that no adversary can match. Growlers will keep our Navy equipped to overcome enemies today and in the future in all threat environments. For that, I would like to say once again, thank you very much.

Today I am here to support adding F/A–18 Super Hornet aircraft to the fiscal year 2016 NDAA. As you know, the Navy submitted an unfunded requirement for 12 F/A–18F model aircraft. In testimony, the Chief of Naval Operations, Admiral Jonathan Greenert, stated that the Navy has a "Super Hornet shortfall," in his words, of at least 2 or 3 squadrons, equivalent of some 24 to 36 aircraft.

As you all are well aware, an aging fleet of legacy aircraft, the delayed operational deployment of the F–35 program, and the higher-than-anticipated utilization of Super Hornets in combat are contributing to this shortfall. To this last point, the Super Hornet is truly the workhorse of naval combat operations against the Islamic State of Iraq and the Levant.

By some estimates, the Super Hornets today are flying at four times the anticipated rate. It is an absolutely critically in demand weapon against our enemies. To exacerbate the shortfall challenge, the Navy has lost 15 Super Hornets and Hornets over the past 5 years to battle or training losses, aircraft that have not been replaced by the Navy or Congress.

The strike fighter shortfall identified in the unfunded requirement request is not a new issue to the Navy. We all wish that the President's budget request included additional F/A–18 Super Hor-

nets, and we all expect the Navy to address the total extent of the shortfall in subsequent budgets.

However, without aircraft in fiscal year 2016, the F/A–18 program faces a line closure decision. The F/A–18 manufacturing line is the only aircraft production with the ability to build operational strike fighters for the Navy today and AEA [airborne electronic attack] aircraft for the entire Department of Defense. Without it, the Navy could not address its shortfall, nor could it add Growlers in the future.

Recall that there is likely a larger, joint requirement for more EA–18G Growlers that is pending further analysis. I would not be in front of you today if funding additional aircraft were not so vital to our warfighting capabilities. Adding aircraft and keeping the F/A–18 line alive is the right thing to do to keep our military personnel safe and to keep our country and allies safe.

I have provided a copy of the House letter signed by myself and my colleagues requesting additional aircraft. These are Members who have stood by the committee to support defense authorization. I have also added a copy of the unfunded requirement, highlighting the Navy's request for 12 aircraft. I ask that both of these documents, Mr. Chairman, be submitted as part of my written testimony.

[The information referred to was not available at the time of printing.]

The CHAIRMAN. Without objection.

Mrs. WAGNER. In closing, I urge you to add 12 F/A–18 aircraft to ensure the Navy can protect our Nation now and in decades to come. I look forward to working with this committee and supporting the final NDAA legislation as it moves through the House of Representatives. I stand at your service and thank you so very much for yours.

[The prepared statement of Mrs. Wagner can be found in the Appendix on page 77.]

The CHAIRMAN. Thank you.

Are there any questions for Ms. Wagner?

If not, thank you. We appreciate you being with us this morning.

Next we turn to the gentleman from Nevada, Mr. Hardy.

Thank you for joining us. And you are recognized for 4 minutes.

STATEMENT OF HON. CRESENT HARDY, A REPRESENTATIVE FROM NEVADA

Mr. HARDY. Thank you, Mr. Chairman. Thank you for the opportunity to be here. I would like to thank Ranking Member Smith and, also, the members of the committee. I appreciate the opportunity to testify before you on the National Defense Authorization Act for fiscal year 2016.

There are 627 companies in Nevada's Fourth Congressional District registered to do business with the government, and 459 of those are small businesses. Although they received over $200 million in Federal contracts last year and the options of the contract are in the billions, on behalf of those businesses and the businesses not yet pursuing Federal work, I want to thank you for your work on this permanent reform—or procurement reform.

I especially want to thank the chairman and the ranking member for including much-needed reforms on the non-manufacturer rule, H.R. 1597, the Agile Acquisition to Retain Technological Edge Act of 2015. I also introduced legislation on this issue because the issue could cripple the participation of small service contractors in the Federal marketplace.

As a former small-business owner, I know the importance of clarification while trying to procure a contract by meeting the provisions required, which is why this legislation is very important to small contractors.

Let me first explain what the non-manufacturer rule is, since it's perhaps the most poorly named rule there is out there. The NMR exists to prevent fraud when the government is trying to buy manufactured goods like ball bearings or furniture.

If a contract for office chairs is set aside so that only small businesses can compete, the last thing the government wants is a winning small business buying chairs from a large business, marking them up and then delivering them.

That's why the NMR says that, in the case of contract for goods that is restricted to small businesses, the winning company must either make the goods itself or buy them from another small manufacturer. Where there are some expectations in the cases, there are no small manufacturers. This really is the truth in advertising provisions that works pretty well.

Unfortunately, the Federal courts have started applying the NMR to contracts for services so that a small builder would now need to either manufacture all the building supplies or buy them from another small business. Likewise, a small company customizing software would now be required to manufacture the underlying software.

This application makes no sense. We already have separate rules for service contractors that make sure that they aren't subcontracting all the work to large businesses. The government gets no benefit from putting additional supply chain burdens on small service contractors.

But this restriction will limit the amount of competition for the $267 billion in services the government purchased last year. Therefore, the Small Business Administration agrees that we need to fix the statute to make it clear that the NMR only applies to contracts for goods.

For these reasons, I strongly encourage the committee to include section 504, H.R. 1597, in the fiscal year 2016 National Defense Authorization Act.

I would also like to lend my support to the testimony of Chairman Chabot and encourage you to include the other small-business contracting provisions in H.R. 1597 and H.R. 1481, the Small Contractors Improve Competition Act of 2016.

Thank you. And I stand ready for questions.

[The prepared statement of Mr. Hardy can be found in the Appendix on page 83.]

The CHAIRMAN. Thank you.

Are there any questions of Mr. Hardy?

Thank you. We appreciate you being with us and appreciate your input.

Next, Chairman Young.

Thank you for being with us this morning. The gentleman is recognized for 4 minutes.

STATEMENT OF HON. DON YOUNG, A REPRESENTATIVE FROM ALASKA

Mr. YOUNG. Thank you, Mr. Chairman. I will tell you I am not a happy individual right now. I was in traffic an hour and a half. I am going to try to smile right now, I will tell you that right now.

Mr. Chairman and ranking member and my distinguished colleagues, I am here to talk about the State of Alaska and the mission. According to Air Force "Billy" Mitchell way back, many, many years ago, he said, "He who holds Alaska holds the world. I think Alaska is the most important strategic place in the world."

It is true what General Mitchell said in 1933. That was the year I was born, by the way. Alaska offers unparalleled training areas, including Joint Pacific Alaska Range Complex. While ranges in the Lower 48 are parts of States, JPARC's training areas are the size of the States.

To give you an idea, 65,000 square miles of unencumbered airspace, that's the size of Florida; 2,490 square miles of land space, the size of Delaware; 42,000 square nautical miles of surface, subsurface, and overlaying airspace over the Gulf of Alaska, the size of Virginia.

More than that, support for our service members, their families, and veterans runs deep in Alaska. Alaska's Active Duty military personnel, combined with our Vietnam population, our veteran population, equates to more than 15 percent of the State's entire population.

We, as Alaskans, pride ourselves in the strong mutually beneficial relationship we have with our Alaska-based military members. Many of those who have been going overseas actually deployed from Alaska.

As you continue in the fiscal year 2016 NDAA process, I would like to highlight several specific funding and language requests that are important to Alaska and the United States mission.

First, I would like to request the committee include a sense of Congress regarding the Air Force's F–35 basing in the Pacific. In August of 2014, Eielson Air Force Base in Alaska was named as the preferred alternative for Pacific F–35 basing. Regardless, it is important to continue to highlight Congress's desire to see the Air Force consider Alaska's military value as part of a strategic basing process.

Pacific F–35s would be based at a location that has the ability to host fighter-based bilateral and multilateral training opportunities, has significant airspace and ranges to meet its air training requirements, has existing facilities to support personnel, operations, and logistical needs, has limited encroachment from outside, and minimize the overall construction [and] operational cost. Eielson offers the Air Force these capabilities.

Second, I would like to speak for a moment on the Alaskan—Native American/Hawaiian Small Business Administration 8(a) program. Mr. Chairman, we talked about this last year. This is a new section.

Section 811 has a large negative effect on Native Americans and the Hawaiian community-based contracting organizations participating in SBA 8(a) programs. And I will say personally I believe this program has worked well for the government, for the military, and the taxpayer.

I also would support a no-cost land—this is a very small thing, Mr. Chairman—a no-cost land transfer from the Air Force to the City of Galena, Alaska. The western Alaskan town of Galena was hit by a devastating flood in the spring of 2013. It was really a bad, bad flood. Federal and State disasters were declared and more than $75 million—$56 million Federal and $19 million State—has been spent to recover this city.

While Galena has made great strides to recover from this terrible disaster, the residents are still vulnerable to the catastrophic floods due to the location of the Yukon River flood plain. To eliminate the flood threat, the City of Galena would like to move to higher ground.

They have done surveys and have found there is an optional area above the flood plain in the former home of the Campion Air Force Radar Station. This area has been actually abandoned. It is still maintained by the Air Force. But, very frankly, they don't have any objection if we could transfer the City of Galena. It costs nothing to the taxpayers. It will save the city and actually take land out of the Air Force's hands.

I also request funding authorizing $10 million for State Sponsored Aerospace Facilities, which have been funded before; a missile defense agency and ground-based missile defense and sensors—that's a PB–16—an F–35 procurement RDT&E [research, development, test, and evaluation]; Alaska military construction, including projects at Fort Greely and Eielson Air Force Base; the Civil Military including the National Guard Youth ChalleNGe and Innovative Readiness Training programs; language for report of efforts to reduce high energy costs of military installations; language to expand space-available travel for gray area retirees. Remember, we have a lot of veterans and surviving spouses and airplanes are available.

Again, Mr. Chairman, I thank you and the ranking member and the members of the committee. I would like to suggest, Mr. Chairman—and I ask you this personally and the committee—to come to Alaska. This is a fine military area. Has been. Always has been. Will continue to be.

It is the key to our strategic mission as far as military goes. Many of the bases we have today in the Lower 48 have really no contributing factor other than just being political.

I say this respectfully. If want to solve a mission, you can get anywhere in the world quicker from Alaska than any other base in the United States. Now, you might not say that about Guam or the Philippines, but it is an area.

Mr. Chairman, with that, I thank you. And I will answer any questions.

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

The CHAIRMAN. Thank you.

I know that there is a group of our members who are planning on going to Alaska before too long on one of their specific trips.

So any member have questions of Mr. Young?

Thank you, sir. Appreciate you being here.

Mr. YOUNG. On time, by the way.

The CHAIRMAN. Just don't hold this committee responsible for traffic.

The committee is pleased to welcome the gentleman from Pennsylvania, Mr. Rothfus, who is recognized for 4 minutes.

STATEMENT OF HON. KEITH J. ROTHFUS, A REPRESENTATIVE FROM PENNSYLVANIA

Mr. ROTHFUS. Thank you, Mr. Chairman. And thank you, members of the committee, for holding this hearing today and for receiving my testimony on the National Defense Authorization Act for fiscal year 2016.

This morning I would like to focus my remarks on the Army's Aviation Restructuring Initiative [ARI]. As you know, this policy will result in the transfer of the National Guard Apache helicopters to their Active Component. Army officials have stated that this restructuring is necessary to generate savings and make the remaining aviation fleet more affordable. I have long opposed this plan and for the second year in a row asked, Mr. Chairman: Savings at what cost?

Since September 11, 2001, the National Guard has repeatedly risen to the occasion. They have answered the call and fought bravely in Iraq and Afghanistan. At the height of these wars, nearly 50 percent of the Army's total force was a mix of reservists and members of the National Guard.

The Pennsylvania National Guard alone contributed more than 42,000 individual deployments. They have fought side by side with the Active Component, all while continuing to achieve their important mission here at home.

ARI will have devastating impacts on all that the National Guard has achieved. By stripping the National Guard of its Apache helicopters, the Army is ensuring that the National Guard will be less combat-ready and less able to provide operational depth.

It will also deprive our Nation of an operational reserve for these aircraft, which is essential to the retention and management of talented air crews. This represents a fundamental shift in the nature and the role of the National Guard. It runs counter to the wisdom and preference of many Members of Congress and their constituents.

This issue is important in Pennsylvania and to the 1–104th Attack Reconnaissance Battalion in Johnstown. These highly trained airmen and crew played an invaluable aerial support role in Afghanistan, where they flew their Apache helicopters and fought alongside the Active Component.

The Army now proposes to replace these Apaches with a smaller number of Black Hawks. This reduction will deprive the National Guard of both highly trained personal and equipment. It will result in the National Guard being less effective, less combat-capable, and less able to heed the call to defend this Nation both at home and abroad.

I offered similar criticism of AIR last year and joined my colleagues in urging this committee to create the National Commission on the Future of the Army. I also advocated that there should be no transfers or divestment of any Army aircraft, including Apaches, until after the Commission has had sufficient opportunity to examine ARI.

I applauded the committee for including those important provisions in the fiscal year 2015 NDAA, but I was disappointed to see that, at the insistence of the Senate, the legislation also contained a glaring exception that allowed the Army to transfer up to 48 Apaches prior to the Commission releasing its finding and recommendations.

The Commission was established to offer a deliberate approach to addressing force structure issues like ARI. So how does it make any sense to permit the Army to transfer these Apaches before the Commission has done its work? The answer is simple: It doesn't. And we need to put a stop to this before it is too late.

Even National Guard Bureau Chief General Frank Grass admits that, once these transfers begin, it will be all but impossible to reverse them. For that reason, I respectfully request that the committee include a simple provision in this year's NDAA that prohibits the transfer of any Apaches until the end of fiscal year 2016.

This will provide sufficient time for the Commission to release its report, for the Army and the National Guard to respond, and for the Congress to make a reasoned and well-informed decision.

I recognize that this committee will be forced to make many difficult decisions over the next month, but this isn't one of them. Providing a temporary freeze on the transfer of Apaches just makes sense and will ensure that irreparable harm is not done to our National Guard without due deliberation.

Thank you for the opportunity to address you this morning. And I am happy to answer any questions that you may I have.

[The prepared statement of Mr. Rothfus can be found in the Appendix on page 74.]

The CHAIRMAN. I thank the gentleman.

Are there any questions?

Thank you. We appreciate your being here. Obviously, there are a number of members who have expressed interest in this, and we appreciate your input.

Mr. ROTHFUS. Thank you.

The CHAIRMAN. Next we will turn to chairman of the Small Business Committee, Mr. Chabot.

Thanks for being here, Mr. Chairman. And you are recognized for 4 minutes.

STATEMENT OF HON. STEVE CHABOT, A REPRESENTATIVE FROM OHIO

Mr. CHABOT. Good morning, Chairman Thornberry and the ranking member and other members of the committee. I appreciate the opportunity to testify before you this morning on the National Defense Authorization Act for fiscal year 2016.

Let me begin by thanking the committee for its collaboration with the Small Business Committee. In my 19 years on the Small Business Committee, I have seen the relationship between our two

committees grow, and we certainly intend to continue that tradition. And so thank you for cooperation of all the members of this committee with the Small Business Committee.

I also want to compliment the chairman and the ranking member on H.R. 1597, the Agile Acquisition to Retain Technological Edge Act. The bill has many provisions that will help small businesses, which I discuss in my written testimony.

But I will be brief in my oral testimony this morning. And I actually have a hearing in Judiciary that I have to get back to on immigration, and we all know that that is a very important issue facing our Nation today. I hope to see those provisions incorporated in this year's NDAA.

I am here because I know there are several commonsense reforms that we can work together on to see that small businesses can compete fairly for Federal contracts. The Small Business Committee has held three hearings on this subject over the past few months, and I would like to share with you some of the findings of those hearings.

First, the good news. The government has met its goals regarding contract dollars going to small businesses. Early indications are that we met the goal again last year as well. So that is good news. The percentage of dollars awarded to small businesses is a good measure of success, but it is not the only measure.

Here is the bad news. Within the last 2 years, we have lost over 25 percent of the small business firms registered to do business with the Federal Government. Within the Department of Defense, the number of small-business contract actions fell by almost 70 percent, but the size of the average individual small-business contract increased by nearly 290 percent.

We have a declining small-business participation rate, which could threaten the core principle of competition. And, as we all know, it is basic supply and demand. The more competition you have, the better chance you have for restraining prices from going up.

To address these problems, we have in the committee introduced H.R. 1481, the Small Contractors Improve Competition Act. This bill would require that the Small Business Administration place a greater emphasis on small-business subcontracting and participation rates.

It would also make it easier for small businesses to joint-venture and team up and crack down on several contracting abuses. It is a good first step to helping our industrial base. And I have provided more detail in my written statement.

I'd ask the committee to incorporate these provisions, plus provisions in H.R. 838 and H.R. 1666, into this year's NDAA. Again, the details of these provisions are in my written testimony, but I won't go into great detail at this time because I know the committee has time restraints here.

Our Nation demands a vital small-business industrial base. It is fundamental to the health of our Nation as whole. I look forward to working with this committee to ensure that small businesses continue to provide the Department of Defense and the Federal Government with innovative and competitive solutions to support critical programs.

And I want to again thank you for hearing our testimony this morning.

The CHAIRMAN. Thank the gentleman.

Without objection, your full written statement will be made part of the record.

[The prepared statement of Mr. Chabot can be found in the Appendix on page 39.]

The CHAIRMAN. And let me just say I, too, appreciate the strong collaborative relationship we have between our two committees on so many issues.

Mr. Knight, you are recognized for 2 minutes.

Mr. KNIGHT. Thank you, Mr. Chairman.

I would like to thank Chairman Chabot for his testimony and add my support to his request that these provisions be included in this year's NDAA.

H.R. 1481 includes language I introduced, H.R. 1390, the Small Business Joint Venturing Act of 2015, which he referred to.

We all know how important competition is in the Federal procurement system. Therefore, we should be encouraging qualified small-business teams and joint venture to compete for Federal contracts, not allowing agencies to put roadblocks in their way.

I look forward to working with both committees to push this package of commonsense reforms as we move forward.

Thank you, Mr. Chair.

Mr. CHABOT. Thank you very much.

Mr. Chairman, if I could just comment.

Mr. Knight, I know, has been an extremely valuable member of the Small Business Committee already, and I know he has done great things on this committee. We are glad to see both committees have such a tremendous member.

The CHAIRMAN. Appreciate that.

Mr. Ashford, did you want to be recognized? Two minutes.

Mr. ASHFORD. I don't need 2 minutes. But could you just for my edification—because I am relatively new here. I think this is a super idea. Could you just go over what were the two bills now. And I could find them out myself, but ——

Mr. CHABOT. Yeah. Well, briefly, what they deal with is, for example, bundling a lot of the contracts which may, at first, appear to be—you know, small businesses involved are bundled and they are actually much larger company-involved, and you have consolidation issues.

Those are some of the issues that we are facing, and these deal with the details in all the written testimony which we, because of time constraints ——

Mr. ASHFORD. Right. I don't need to go any further.

I think this is especially important, at least in our area of the country where we have a large military participation. So thank you very much.

Mr. CHABOT. Absolutely.

And, as we know, about 70 percent of the jobs nowadays created in the American economy are small businesses. By definition, small businesses are companies generally under 500 employees. So they are not all that small sometimes. But those are the jobs of the future.

Mr. ASHFORD. And I know we are lacking in time.

But it was interesting. A couple of weeks ago the New York Times had an article about out how startups have decreased substantially since 2009 from prior to that. Many of those startups are technological types of enterprises that could be candidates for this kind of work.

Mr. CHABOT. And that's particularly disturbing. And that's one of the things that we had—I don't recall now if our committee resulted in the article or the article had something to do with our hearing.

But I know that that is a fact. And it is disturbing. Because, historically, we have had more startups than businesses that died. And now that's reversed, and we have more businesses going out of business than businesses being created. And that's dangerous.

Mr. ASHFORD. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you.

Mr. Chairman, thank you again for being here. We will let you get to your other hearing, but we appreciate your testimony.

Mr. CHABOT. Thank you, Mr. Chairman.

The CHAIRMAN. Next we have the gentleman from Illinois, Mr. Bost.

Thank you for being here. The gentleman is recognized for 4 minutes.

STATEMENT OF HON. MIKE BOST, A REPRESENTATIVE FROM ILLINOIS

Mr. BOST. Thank you, Chairman Thornberry, and ranking member. Thank you for the opportunity to address the committee. First off, allow me to summarize my written testimony, if I may, for the need for additional F/A–18 strike fighters.

Mr. Chairman, the Navy is facing a critical shortage of the operational strike fighters. The F/A–18 is the Navy's only operational strike aircraft. The Super Hornet and its sister aircraft, the EA–18G Growler, provide critical strike and electronic warfare support in a mission against ISIS [Islamic State of Iraq and Syria] and terrorist organizations.

Increased operational tempos in the war on terror, combined with the Navy's other commitments to ensure safe and free navigation of the seas, is resulting in an aircraft utilization rate that is four times the expected rate of use.

As a consequence, strike fighters are rapidly approaching the end of their active use. In recent testimony, Chief of Naval Operations Admiral Greenert stated that the Navy is experiencing a serious shortfall of between 24 to 36 Super Hornet aircraft. The primary cause of these shortfalls are the above-mentioned rate of utilization and issues with the speed of repairs to the legacy Hornets at the depots.

The Navy's inclusion of 12 F/A–18 Super Hornet aircraft in their unfunded priority acknowledges these shortfalls. Unfortunately, the aircraft production line is at a critical juncture. Without congressional action, it may close.

The inclusion of 12 additional strike fighters in the Defense Authorization Act will ensure that the Navy has the assets it needs

to protect our Nation. It will also protect the national security value provided by the St. Louis air defense industrial base.

The F/A–18 Super Hornet and the EA–18G Growler program line represents more than 60,000 U.S. jobs, with 800 supplier partners in 44 States.

In closing, prudence requires we keep and maintain the F/A–18 Super Hornet and the EA–18 Growler production lines. I strongly urge the committee to authorize the Navy's request for an additional 12 F/A–18 aircraft for the coming fiscal year. And, once again, I thank the committee for the opportunity to address this matter.

On a side note, as a U.S. marine who was actually around when we first were testing the F–18, I look forward to working with any of you to find out and make sure of the importance of this and make sure we can put it in.

Thank you. I would be glad to answer any questions.

[The prepared statement of Mr. Bost can be found in the Appendix on page 79.]

The CHAIRMAN. Great. Thank you, sir.

Are there any questions for the gentleman from Illinois?

Thank you. We appreciate your time this morning and appreciate your input.

Next, the gentleman from Pennsylvania, Mr. Fitzpatrick.

Thanks for being with us. The gentleman is recognized for 4 minutes.

STATEMENT OF HON. MICHAEL G. FITZPATRICK, A REPRESENTATIVE FROM PENNSYLVANIA

Mr. FITZPATRICK. I thank the chairman and the ranking member for this opportunity.

With the continued threat of terrorism to the homeland, each of us only has to remember back to the attacks of September 11 to comprehend the devastation caused when our Nation's airliners were turned into weapons.

That is why I am asking for the committee's help in protecting our skies from terror hijackings by requiring any aircraft that participates in the Department of Defense Civil Reserve Air Fleet program to secure their cockpits by installing secondary barrier doors.

These secondary barriers are light, inexpensive wire gates that protect the flight deck while the cockpit door is open. While it is true the cockpit doors have been strengthened in light of the terrorist attacks, the preventative measure only works when it is closed. What happens when a pilot needs to open the door for any reason during the course of a flight?

This lapse in security can provide an attacker just enough time to strike and take control of the plane. In fact, a video has surfaced online that shows it takes only 2 seconds for a terrorist to breach the cockpit once the door is opened under current protocol.

The recent Germanwings tragedy shows us the danger when someone with bad intentions is able to lock themselves behind a reinforced door. Unlike the heroic efforts of the passengers of United Flight 93 that crashed in my home State of Pennsylvania, there is almost nothing the passengers can do to retake the aircraft in this very real scenario.

As a Congress, we are tasked with many responsibilities. Chief among them, the protection of our constituents and our country. We can no longer ignore this obvious hole in our anti-terror measures. This Congress must act now to address the shortcoming.

If there is one thing Al Qaeda and ISIS seeks, it is a high-profile attack that is cheap for them to execute. Right now, for the cost of one trained extremist and a first-class ticket, Al Qaeda or ISIS can turn our aircraft into a weapon once again. This is our reality.

Earlier this year ISIS sympathizers were arrested by law enforcement in New York City and found to have had plans to hijack an aircraft. Last month a passenger on a United Airlines flight rushed the cockpit. Three weeks ago the whole world was tragically shown the heartwrenching consequences of this danger when someone locked the pilot out of the cockpit and deliberately crashed Germanwings Flight 5925.

As pilots will tell you, this is not hard to fix. A 2013 study found that secondary barriers are very cost-effective, require little maintenance, and reduce risk at a modest cost. Pilots, flight attendants, and Federal law enforcement have been making the case to have these doors on every aircraft.

Last Congress, 60 Members of the House and 10 Senators joined our effort, understanding that the mandate of the 9/11 Commission to protect the cockpit will only be realized when every passenger aircraft in the country is secured with these cost-effective barriers.

Nearly one-third of the 38 cosponsors of my bill, H.R. 911, that adds secondary barriers to every single aircraft in the country, are members of the Armed Services Committee. My ask today, Mr. Chairman, is much more tailored.

The NDAA is one way Congress can work to at least eliminate the glaring vulnerability of putting our troops at risk. We must guarantee that any aircraft that transports our brave men and women in uniform is never turned into a weapon and our troops into helpless victims.

So here is how we can fix this. As you know, the Department of Defense, in partnership with the U.S. airline industry, operates the Civil Reserve Air Fleet. In exchange for the air carriers committing a limited number of aircraft to this program, the airlines receive the opportunity to do business with the Department of Defense.

In fact, the GAO [Government Accountability Office] study shows that the airline industry has received over $30 billion in business since 2001 through that program. Only about 350 aircraft would be affected by this requirement, but those are the 350 aircraft that transports some of our most precious cargo, our troops.

I appreciate the opportunity to address the committee.

I would like to recognize that my constituent, Ellen Saracini, who is the widow of United Airlines Flight 175 pilot Victor Saracini, is here today.

Victor's flight was highjacked by Al Qaeda terrorists on September 11 and flown into the World Trade Center just after 9 o'clock in the morning. Victor was a naval aviator, a veteran of the United States Navy.

So with Victor in mind, the 3,000 victims of 9/11, and our troops today, I offer these remarks. I would be happy to answer any questions.

[The prepared statement of Mr. Fitzpatrick can be found in the Appendix on page 52.]

The CHAIRMAN. Thank you, sir. And I appreciate you bringing this issue to my attention, at least, because the secondary barriers is not something that I really had thought about or been aware of before.

Any other questions for the gentleman?

Thank you. Appreciate you being with us and appreciate you raising them.

Mr. FITZPATRICK. Thank you, Chairman.

The CHAIRMAN. Next we invite the gentleman from Florida, Mr. Curbelo, to provide testimony.

The gentleman is recognized for 4 minutes.

STATEMENT OF HON. CARLOS CURBELO, A REPRESENTATIVE FROM FLORIDA

Mr. CURBELO. Good morning, Mr. Chairman. And thank you very much for this opportunity. Good morning to all the members, especially a special greeting for my distinguished colleague from Florida, Mr. Nugent.

I appreciate the opportunity to testify before you on the National Defense Authorization Act for fiscal year 2016. Like my colleagues, I would like to thank the chairman and the ranking member for their leadership on procurement reform and suggest an additional area that requires the committee's attention, in my opinion.

Within Florida's 26th Congressional District—that is the southernmost district in the country—there are 649 companies registered as Federal contractors, including 448 small businesses.

Those small businesses won over $61 million in Federal prime contracts last year out of the $440 billion spent on Federal contracts. That is why I believe that those 448 companies and the 289,000 small contractors nationwide could be doing more if we only took subcontracting more seriously.

Subcontracting is incredibly important for small businesses. Any large business receiving a contract for more than $650,000 must tell the Federal Government how it will use small businesses as subcontractors. This ensures that we have a healthy industrial base at all levels.

Additionally, since about 80 percent of the Federal contracts are awarded to large businesses, this is where the money is. In fiscal year 2013, small businesses received $86.7 billion in subcontracts, which is just about $5 billion less than they received in prime contracts.

As part of the fiscal year 2013 NDAA, this committee enacted legislation to hold agency officials accountable for small-business utilization. Specifically, when agencies were considering whether senior agency executives deserved bonuses, it required that the agencies consider whether the contracting goals were being met and the role of said executives in meeting those goals.

Even though the importance of subcontracting was again acknowledged by this committee as part of the fiscal year 2014 NDAA when it included language drafted by Congressman Graves to count lower-tier subcontractors towards subcontracting goals, agencies are disregarding congressional intent. When agencies im-

plemented the fiscal year 2013 language on goaling, they took the term "goals" to mean prime contract goals, ignoring the role of subcontracting.

As a consequence, prime contracting dollars have increased, but the percentage of subcontract dollars awarded to small businesses has been falling and is down 2.5 percent since 2010.

Likewise, agencies have not even started implementing the fiscal year 2014 language. This means fewer small suppliers, manufacturers, and innovators. Subcontracting is an important entry point for new Federal contractors. So if we have fewer subcontractors today, we will have fewer prime contractors tomorrow.

For these reasons, I introduce H.R. 1386, the Small Entrepreneur Subcontracting Opportunities Act of 2015, or the SESO Act, with Mr. Chabot, Mr. Gibson and Mr. Bost. SESO requires that agencies look at subcontracting accomplishments as well as prime contracting accomplishments when evaluating performance of senior executives. SESO is included in H.R. 1481, the Small Contractors Improve Competition Act of 2015, and passed committee on March 25th with bipartisan support.

In Spanish, the word "seso" means "brains." And I hope you will agree with me that including the SESO Act and other provisions in H.R. 1481 in the fiscal year 2016 NDAA is the smart thing to do.

Thank you very much, Mr. Chairman. And I'd be happy to answer any questions.

[The prepared statement of Mr. Curbelo can be found in the Appendix on page 81.]

The CHAIRMAN. Thank you.

Any member of the committee have questions?

Thank you for being here and for bringing it to our attention.

Next, the gentlelady from Michigan, Ms. Lawrence.

Thanks for being with us this morning. The gentlelady is recognized for 4 minutes.

STATEMENT OF HON. BRENDA L. LAWRENCE, A REPRESENTATIVE FROM MICHIGAN

Mrs. LAWRENCE. Thank you, Mr. Chairman, for having me here this morning. I would like to thank all the members of the committee for allowing me this opportunity to speak on this important matter.

Mr. Chairman, warfare is changing. We are in a time of fighting on multiple fronts using weapons we cannot have even imagined during the Vietnam era. Most of these weapons require knowledge of cyber warfare, the ability to use missiles and drones to fight from a distance.

The fast-paced advance of technology is producing changes in the threats we face. How can we keep up? The answer is to be just as innovative with our human resources strategy as we are with our weapons and tactics.

The Department of Defense has adopted new and powerful technologies that makes the military more effective and efficient. Despite the power and speed of these technologies, we still have some major cyber vulnerability.

Whether through Internet-based attacks or malicious cyber hardware, we are the primary target of cyberattacks, jeopardizing or seriously impairing our military operations. We must do more to prevent enemies from using our cyber vulnerabilities against us.

I believe we have to provide for private development of cybersecurity supply chain ratings and accreditation. While the Department of Defense is the most reliable government protector of the cyber supply chain, more work is required to be done.

Our business community is ready to accept this challenge. In Michigan, we are ready to meet the challenge. We have supply chains that feed such large defense contracts. Our connection to the defense industry is a long and well-established one.

Each part of the military has a need for defensive cyber capabilities, and many also have the need for offensive capabilities. U.S. Cyber Command is critical for ensuring leadership in a centralized command for cyber operations.

While Cyber Command set a goal for 133 operational cyber teams by the end of 2016, as of February 2014 only 17 were fully operational. We need to properly support the development, training, and deployment of these teams.

Implementing these policies together with expanding existing policies such as cyber information-sharing between the public and private sectors will better prepare the Department of Defense to face serious cybersecurity challenges.

Finally, as you address cyber operations squadrons for Air National Guard, I would like to express my strong support for the 110th Attack Wing of the Michigan Air National Guard in Battle Creek, Michigan, to host a cyber squadron. Battle Creek Air National Guard Base's existing cyber missions mean that much of the infrastructure required for this new mission is already in place.

Projections show that a cyber operation squadron at Battle Creek, Michigan, would save $2.2 million, compared to a location without such capabilities. Michigan's current workforce and universities provide a strong foundation for current and future recruiting efforts.

Michigan has a network of highly skilled IT [information technology] professionals and qualified defense personnel. Michigan has 22 colleges and universities that offer degrees in cybersecurity, including 5 colleges that have earned the NSA [National Security Agency] Center of Excellence distinction.

Cybersecurity is also a gender-neutral occupation, allowing both men and women to serve our country and protect our Nation as equals. I hope that we will continue to see this growing area of concern addressed through effective human resources and adequate funding for advanced technology.

I am aware of how difficult the job is in these tough, complex times. You serve to address the needs of our military service members, their families, and their civilian counterparts at a time when we are facing security issues on multiple fronts. This is an awesome power and, as such, it comes with a high responsibility.

As you consider national security provisions that focus on cyber warfare, I respectfully ask that you consider the great State of Michigan and its ability to support our national cyber missions.

Thank you, Mr. Chairman. And I will take any questions.

[The prepared statement of Mrs. Lawrence can be found in the Appendix on page 93.]

The CHAIRMAN. I thank the gentlelady. Certainly cyber is one of the most important and most challenging issues we face anywhere in national security. And so I appreciate very much the gentlelady's comments.

Are there any questions?

Thank you. I appreciate you being with us today.

Next we will go to the gentleman from Florida, Mr. Ross.

Thanks for joining us. The gentleman is recognized for 4 minutes.

STATEMENT OF HON. DENNIS A. ROSS, A REPRESENTATIVE FROM FLORIDA

Mr. ROSS. Thank you, Chairman Thornberry, members of the committee. It is a pleasure to be here today to speak regarding the fiscal year 2016 National Defense Authorization Act.

This year I introduced House Resolution 1337, legislation to waive the time limits for the award of the Distinguished Service Cross to Edward Grady Halcomb for acts of extraordinary heroism during the Korean War. I want to offer my thanks to my good friend, Representative Nugent, and to the rest of the members of the committee for including this legislation in the fiscal year 2016 NDAA.

The Distinguished Service Cross is the second highest military decoration that can be awarded to a member of the United States Army, and for years my staff has worked with long-time Mulberry, Florida, resident Grady Halcomb, who proudly served during the Korean War, to be awarded a Distinguished Service Cross.

Recently I received confirmation from the Secretary of the Army, John McHugh, who personally affirmed that Grady Halcomb should be awarded with the Distinguished Service Cross for his valor in the service. However, there is a time limitation in the U.S. Code currently preventing this award from being presented to Mr. Halcomb.

To address this, I introduced legislation to ensure this American hero will receive the award he earned in service to his country and his efforts to save the lives of fellow service members so many years ago.

On July 27, 1950, Private Halcomb fought in the Battle of Anui as a member of Company B, 1st Battalion, 29th Infantry Regiment. This battle resulted in the worst single-unit American fatality rate of the Korean War, with only 24 of 235, which is 10.2 percent, of the soldiers surviving.

Enemy forces captured Private Halcomb after he was wounded and most of his unit was killed. Now, Mr. Halcomb is a very humble and private man. His time as a POW [prisoner of war] was rather enduring, and what I want to just relate to you now is some of what he experienced, but it is greater than what we say here.

After capture, Grady Halcomb endured a 150-mile march from Anui to Seoul with little food or water. In the Seoul prison, Private Halcomb assumed by his competence and inexplicable stamina the role of chief medic. At age 19, Grady Halcomb supervised 9 other medics and cared for up to 376 American prisoners.

At great personal risk, Grady Halcomb exposed himself daily to disease and infections while depleting his own strength by virtually never leaving his patients' side for over a 2-month period in garrison or on the 120-mile death march from Seoul to Pyongyang.

Although aware that sick soldiers were being routinely murdered by North Koreans, Grady Halcomb volunteered to remain in Seoul with the sick and wounded, who were separated from the main prisoner column marching to Pyongyang after the Inchon landing.

When forced to leave Seoul to begin the death march, he rallied the feeble soldiers and escorted them until they caught up with the main POW column. Lastly, Private Halcomb then successfully helped plan and execute a daring escape with four other prisoners in Pyongyang despite the presence of overwhelming enemy forces.

Awarding the Distinguished Service Cross to Edward Grady Halcomb is a long overdue honor for a man who risked his own health and safety as a POW during his times in Seoul, on the death march, and at the death camp in Pyongyang to care for and defend his fellow prisoners.

I want to thank Secretary McHugh and his staff at the Pentagon and all of you here on the Armed Services Committee for working with my staff to include this important and needed provision in this year's NDAA. I thank you.

And I yield back.

[The prepared statement of Mr. Ross can be found in the Appendix on page 72.]

The CHAIRMAN. Any questions?

Mr. Nugent.

Mr. NUGENT. Mr. Chairman, thank you.

I just want to thank Mr. Ross for bringing this forward. You know, these guys served, and they don't ask for much.

Mr. ROSS. It is amazing.

Mr. NUGENT. It really is. And for you to bring this forward—and I appreciate the chairman for allowing it to be in the chairman's mark. It is the right thing to do.

Mr. ROSS. I agree. And thank you.

Mr. NUGENT. And just for a time lapse, some things take a while to work out. And so I just really want to appreciate what you did for Mr. Halcomb, and I am sure he and his family would appreciate it, too. Thank you, sir.

Mr. ROSS. He definitely earned it. Thank you.

Thank you, Chairman.

The CHAIRMAN. Further questions?

Definitely a remarkable story. Thank you.

Thank you, Mr. Ross.

The CHAIRMAN. Next the gentleman from Oregon, Mr. Blumenauer.

I appreciate you being with us this morning. The gentleman is recognized for 4 minutes.

STATEMENT OF HON. EARL BLUMENAUER, A REPRESENTATIVE FROM OREGON

Mr. BLUMENAUER. Thank you, Mr. Chairman. I appreciate the courtesy of the committee being able to share two points with you.

One, I want to thank the committee for your tireless efforts on behalf of the foreign nationals who worked with us in the theater of Iraq and Afghanistan. It has been an honor working with your colleague, Ms. Gabbard, to be able to move this forward. It has been kind of a hairspring effort walking up to the cliff, but thanks to your leadership and others coming together in a bipartisan fashion, we have been able to increase the necessary number of visas. We have been able to accelerate the processing.

But, in fact, we are being penalized a little bit because of our success. We are running out of visas, and we may have only 1,600 left. It is going to be soon exhausted. We desperately need provisions in your underlying bill to help us continue this progress. It is the least we can do for people who put their lives on the line for Americans and are now at risk because there are people with long memories who are settling scores. These are people who are shot, kidnapped. Their families are at risk. And we need to keep the supply of visas available to them. And I have more detail in my written testimony.

But part of it is to thank you. Second is to keep this alive through your legislation, which will make it much, much easier to navigate the difficult legislative shoals that you have seen in the past.

The other point I wanted to make dealt with investments in dealing with our nuclear arsenal. We are on a path to invest far more than is needed and, frankly, what the country can afford. A recent report from the nonpartisan CBO [Congressional Budget Office] estimates that the nuclear weapons planning currently in the pipeline calls for spending more than $350 billion over the next decade, and there are estimates that suggest that it will far exceed a trillion dollars over the next 30 years to build a force that will be more than the administration and security experts have said is needed to effectively deter our nuclear threat.

Former military officials have acknowledged that the plan is unaffordable. Former Vice Chairman of the Joint Chiefs of Staff, General James Cartwright, said the United States nuclear weapons modernization plans—the challenge here is we have to recapitalize all three legs of the nuclear triad. We don't have the money to do it. A recent defense panel report called these plans unaffordable and a threat to needed improvements in conventional forces. And I have more detail in my written testimony.

But not only are they unaffordable, the scope is unnecessary. The Pentagon's 2013 report declared that we can ensure the security of the United States and our allies and partners and maintain a strong and credible strategic deterrent while safely pursuing up to a one-third reduction in deployed nuclear weapons from the level established in the New START [Strategic Arms Reduction Treaty] Treaties. Other experts, including a commission chaired by former General Cartwright, said that America could go even lower without jeopardizing security.

Our nuclear weapons are not helping us with ISIS, with other challenges that we face. We have far more than we need to destroy any country on the planet. And the point is that it is eating into your ability to be able to deal with the myriad of other challenges that we face for our conventional forces that we do need.

I have introduced legislation. We call it the Smarter Approach to Nuclear Expenditures, the SANE Act, a bill that would save the United States approximately $100 billion over the next 10 years by reducing or eliminating unnecessary nuclear weapons programs.

As you consider the 2016 Defense Authorization, I hope there will be a hard look at what we really need and what we really can afford and the impact it is going to have on the other important things that you are challenged with balancing.

I appreciate your courtesy in permitting me to speak today. I don't envy your hard work. And I hope you will consider these two suggestions.

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

The CHAIRMAN. Well, we definitely appreciate the input.

Are there any questions?

Thank you, sir. I appreciate you being here.

Mr. BLUMENAUER. Thank you.

The CHAIRMAN. Next we will turn to the gentleman from Texas, Mr. Gohmert.

Thank you for being with us and sharing your testimony. The gentleman is recognized for 4 minutes.

STATEMENT OF HON. LOUIE GOHMERT, A REPRESENTATIVE FROM TEXAS

Mr. GOHMERT. Thank you, Mr. Chairman. Thank you so much for being willing to hear testimony from others, and I appreciate the other members of the committee and the work you do.

After the attack on our military at Fort Hood November of 2009, we suffered another shooting here at a military installation at the naval yard followed by the Obama administration appearing to do nothing effective to prevent future or such attacks.

Our military members are normally authorized to carry automatic weapons, fire RPGs [rocket-propelled grenades], drop bombs, shoot tanks and missiles that can kill dozens, thousands even, of people. Yet, the question remains why shouldn't they be able to carry a weapon on military installations here in the United States?

Some commanders, I understand—I have talked to them—have an issue with some carrying weapons on military installations here in the U.S. Some have a problem with open carry on a military installation here in the U.S. Some have a problem with concealed carry, but would be okay with open carry.

Others I have talked to, including a retired top general, said maybe the best way would be to have people on duty as duty officers or enlisted members who were carrying while they were on duty. Some have said, "Look, even overseas we have some that we don't allow to carry weapons overseas." Fine. Check them out.

But it seems like there ought to be a process put in place just like some States, like Texas has, where you could apply for a carry permit. Make it open, make it concealed, depending on what the Army felt was the best needs at that installation.

But, at a minimum, we should at least have military members in addition to MPs [military police] who are authorized to carry weapons. And perhaps you could designate like we do in most States if you are an off-duty or on-duty law officer, MP, CID [crimi-

nal investigation division], or even intelligence or maybe you are field grade or above or E–8 or above, whatever the military felt was appropriate—but allow some people around a military installation to carry a weapon on or off duty.

There was an article by Arthur Bird in The Wall Street Journal sometime back that said the people that instigate these events by firing and killing people want to conclude their attack themselves; so, if they are afraid someone is going to shoot them and stop them, they won't instigate the attack.

And the best news we could ever get is that, because something you put in the NDAA was there, we never had another shooting. There was nothing else to report.

So I would ask that the committee please consider this issue in the NDAA. I just know we have got military members killed twice, and to prevent our military members trained with weapons from defending themselves on their own military installation really should be unconscionable.

On another note very quickly, I visit with so many friends in different services of the military, including visiting with some in the past 2 weeks, including visiting with some at Fort Hood last Friday during the Purple Heart presentation, who question how unfair it is for Christians to be told and Christian chaplains who have said they have been told, "You cannot pray in Jesus' name." Jesus said, "If you ask for it in my name, then it will be given."

So it is a prohibited act to prohibit somebody from practicing their religion. And I know we give up many of our rights when we go into the military. I didn't have freedom of assembly or freedom of speech at Fort Benning.

One other matter. At Fort Hood—I know that this committee is concerned about it. Secretary McHugh says he is working on it. But to see these members that got the Purple Heart and know, as one said, "It is like a slap. Here is the medal, but you really don't deserve it. So you are not getting benefits"—I hope the committee will address that.

I will be glad to answer any questions.

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

The CHAIRMAN. I thank the gentleman for raising three important issues.

Are there any questions?

Thank you. I appreciate you being here.

Mr. GOHMERT. Mr. Chairman, thank you very much.

The CHAIRMAN. Thank you, sir.

Now the gentlelady from North Carolina, Ms. Ellmers.

Thank you for being with us this morning. The gentlelady is recognized for 4 minutes.

STATEMENT OF HON. RENEE L. ELLMERS, A REPRESENTATIVE FROM NORTH CAROLINA

Mrs. ELLMERS. Thank you, Mr. Chairman. I appreciate the ability to come and testify before you in the House Armed Services Committee.

Mr. Chairman, I am the proud representative of the Second District of North Carolina, which is home to Fort Bragg. I would like

to draw attention to an incredibly shortsighted decision the United States Air Force has made, which is deactivation of the 440th Air Lift Wing located at Pope Army Airfield at Fort Bragg.

The 440th Air Lift Wing is the only C–130H model wing in the country that the Air Force is choosing to close completely, and this is occurring at the behest of the busiest airfield in the world for training requiring tactical air lift. The Air Force wishes to remove all organic air lifts from Pope Army Airfield and away from the 18th Airborne Corps and the 82nd Airborne Division Global Response Force as well as Army Special Forces groups.

This is a decision that essentially takes the "air" out of "airborne," as planes have been located at Pope since 1954. The removal of the 440th Air Lift Wing at Pope Army Airfield not only lacks strategic merit, but it injects avoidable and unreasonable risks into the readiness of some of the most unique and rapid deployment forces our Nation's military has to offer. To say that this has been an oversight and is occurring and in regard to this decision a severe understatement.

This ill-conceived proposal comes at a time when our Nation is facing growing uncertainty abroad and could require a military response that only forces at Fort Bragg can provide. This joint mission was formed over the last 8 years to provide the Airborne and the Special Forces with easily accessible and high-quality training so that they can carry out any mission they are asked without the risks of distance that is often created by bureaucratic, logistical, and operational delays.

Eliminating the ability to rapidly mobilize, train, and deploy the local commanders, air crew, and aircraft that has established relationships with our most in-demand forces increases risk at an unacceptable rate.

Now, the Air Force has repeatedly assured me that this will not impact military readiness, but the very client that the Air Force serves, the 18th Airborne Corps, disagrees. I have spoken with Lieutenant General Anderson, the commanding general at Fort Bragg, and there is a true feeling that this decision will impact his training abilities.

I am pleased to say that my North Carolina colleagues have rallied around me in both the House and the Senate in a bipartisan manner in order to prevent the Air Force from making this poor decision. I brought this fight to the attention of former Secretary of Defense Chuck Hagel and currently Secretary Ash Carter.

Just within the last month I have sat down with both North Carolina Senators and we met with Secretary of the Air Force, Deborah James, and Chief of Staff of the Air Force, General Welsh. It is my hope this committee sees the vital role that the 440th provides in maintaining the readiness and operational standards of the paratroopers and special forces stationed at Fort Bragg.

Mr. Chairman, I respectfully request that you maintain the mission of the 440th Air Lift Wing and its C–130s. In conclusion, I believe it is more important than ever that the United States maintain the military superiority and continue to be the dominant force in freedom in the world.

Thank you, Mr. Chairman. I look forward to working with the committee on any of the challenges facing our military, and I wel-

come any questions. And my staff and I are ready at any time to provide additional information. And any questions that you might have, I am happy to answer.

[The prepared statement of Mrs. Ellmers can be found in the Appendix on page 54.]

The CHAIRMAN. Great. Thank you.

Well, I know we have worked with you and your office on this issue in the past, and we will certainly continue to do so.

Are there any questions?

Mr. NUGENT. Mr. Chairman, just a comment from a father of a couple of guys—or one that was stationed at Fort Bragg for 6 years.

I want to tell you that military air lift capacity is huge. But the training capacity down at the Green Ramp, where the soldiers go down to get requalified or to do more jumps to stay qualified, is so important.

What was the Air Force's—so how are they going to make up that lost capacity for the 82nd?

Mrs. ELLMERS. Well, the Air Force maintains that the military readiness will continue to be there and that the training will not be affected because they will be able to bring in C–130s from other areas. But, at the same time, we all understand that a schedule and weather and all these different things that can happen can interfere with that.

So that provides the problem for our paratroopers and their training and their availability—their ability to be ready, their availability to complete the mission. I was there at Pope Airfield monitoring and watching some of their training missions, and that particular day one of the paratroopers actually died in the training exercise.

And I understand, the Air Force understands, that this is very important as well, but at the same time I just believe that this operation itself is so crucial and it is so unique that it is hard for me to justify and see the need for them to dismantle it.

Mr. NUGENT. I just worry that—you know, we have had issues in regards to getting troops to Haiti when there was an earthquake down there. We had paratroopers sitting on the tarmac at the 17-hour mark and had to wait 2 days to catch a lift.

And so I worry that, when you start degrading our capacity at that air base to provide that lift, it is going to worsen, not just 2 days. It is going to be a week before we get that capacity.

And, with that, Mr. Chairman, I thank you for the additional time. I yield back.

The CHAIRMAN. Thank the gentleman.

I appreciate the gentlelady being with us and continuing to bring this issue to our attention.

Mrs. ELLMERS. Thank you, sir. And thank you to the committee.

The CHAIRMAN. Thank you.

Next we have the gentleman from Texas, Mr. Hurd.

Thank you for being here this morning. The gentleman is recognized for 4 minutes.

STATEMENT OF HON. WILL HURD, A REPRESENTATIVE FROM TEXAS

Mr. HURD. Thank you, Mr. Chairman. I appreciate you all letting me be here today and for having this opportunity.

I was at Fort Bliss in El Paso, Texas, twice over the last 2 weeks. I am proud to report that morale is high. They are excited to continue doing their mission, and they appreciate the support that this committee has given to them over the years, the largest facility in DOD's arsenal. And they are even more excited about, hopefully, the opportunity for the funding levels to be where they should be, and they are appreciative of the work that you and this committee have done.

What I want to do today is talk about three quick points. One is Laughlin Air Force Base in Del Rio, Texas. Laughlin produces more pilots than any other facility in the Air Force's arsenal. And if it rains more than an inch, the entire flight deck is flooded and they have to stop operations.

And they have proposals in place in order to fix this, correct this problem in stages, and I hope that this committee and the authorization process funds that to make sure that we are training as many pilots as we possibly can.

The other thing I want to talk about is Joint Base San Antonio and the number of bases in San Antonio. San Antonio is becoming cyber city, U.S.A. We have the 24th Air Force, the 25th Air Force. We have NSA Texas as well. And not being part of the National Capital Region, there is resources in San Antonio, and the continued support of the cyber operations in San Antonio is something that we are looking forward from this committee.

And the last point is something I am hoping to work with this committee on as my role as the chairman of the Information Technology Subcommittee on Oversight and Government Reform. When a soldier, airman, or marine leaves DOD or they are medically discharged, they have to physically carry their records over to the VA [Department of Veterans Affairs] or to Social Security. It is 2015. That shouldn't happen, and it creates gaps in coverage oftentimes.

And having 1.5 million veterans in my district, this is something that I think we can solve. And the technical solutions are the easy part. I think we need the political will to solve this not only for the folks currently serving this mission, but those who have left.

So, with that, I want to thank you again for you all's support, pending any questions.

[The prepared statement of Mr. Hurd can be found in the Appendix on page 87.]

The CHAIRMAN. I thank the gentleman for raising all of those issues. It has been enormous frustration for this committee, the transition issues out of the military to the VA or to the other things and the technology delays that the organizations are having, and we will definitely stay on top of that.

Are there questions for Mr. Hurd?

Thank you. I appreciate you raising these important issues. And I believe that is all of our witnesses today. So, with that, this hearing stands adjourned.

[Whereupon, at 11:19 a.m., the committee was adjourned.]

A P P E N D I X

April 14, 2015

PREPARED STATEMENTS SUBMITTED FOR THE RECORD

April 14, 2015

Testimony of
The Honorable Don Young (AK-AL)
Before the
House Armed Services Committee
Hearing: FY2016 National Defense Authorization Act Member Request Day
2212 Rayburn HOB
April 14, 2015

Chairman Thornberry, Ranking Member Smith, and distinguished colleagues on the House Armed Services Committee, thank you for holding this hearing, and for giving me the opportunity to testify on behalf of the State of Alaska. I will keep my remarks today brief, and my staff will be happy to follow up with you to provide additional information on all of these issues, if needed.

According to Air Force General Billy Mitchell, "he who holds Alaska will hold the world, and I think [Alaska] is the most important strategic place in the world." This was true when Gen. Mitchell testified to that fact in 1933, and it remains true today. Alaska offers unparalleled training areas, including the Joint Pacific Alaska Range Complex. While ranges in the Lower 48 are parts of states, JPARC's training areas are the size of states. JPARC includes 65,000 square miles of unencumbered air space (The size of Florida), 2,490 square miles of land space (The size of Delaware), and 42,000 square nautical miles of surface, subsurface, and overlying airspace over the Gulf of Alaska (The size of Virginia). Support for service members, their families, and veterans runs deep in Alaska's DNA. Alaska's active duty military personnel, combined with our Veteran population, equate to more than 15% of the state's entire population. We as Alaskans pride ourselves in the strong, mutually beneficial relationship we have with our Alaska-based military members.

As you continue to in the FY 2016 NDAA process, I would like to highlight several specific funding and language requests that are important to Alaska and the United States.

Top Priorities

PACAF F-35 Basing Sense of Congress

First, I would like to request that the Committee includes a Sense of Congress regarding the Air Force's F-35 basing in the Pacific. In August of 2014, Eielson Air Force Base in Alaska was named as the preferred Alternative for Pacific F-35 basing. Regardless, it is important to continue to highlight Congress' desire to see the Air Force consider Alaska's military value as part of its strategic basing process. Pacific F-35s should be based at a location that has the ability to host fighter-based bilateral and multilateral training opportunities, has sufficient airspace and ranges to meet its air

training requirements, has existing facilities to support personnel, operations, and logistical needs, has limited encroachment, and minimizes the overall construction and operational costs. Eielson offers the Air Force these capabilities

Native American/Hawaiian SBA 8(a) Fix

Second, I request a fix to the Native American/Hawaiian Small Business Administration 8(a) program. Late in Conference for the FY2010 NDAA, an original "good government" provision, Section 802 was modified to unfairly isolate native contractors for enhanced scrutiny. This new provision, Section 811, has had large negative effects on Native American and Hawaiian community-based contracting organizations participating in the SBA's 8(a) Program. Given Section 811's negative effect on Native 8(a)s in my state, I would like the entire provision repealed. If this is not possible, I request that language be included to modify Section 811 back to Section 802, to ensure that the good government and accountability requirements are applied universally to all contractors. This will ensure that there are fair, equitable, and balanced requirements for all contractors seeking Federal sole source contracts. If this language is not possible, I request that the committee include language to clarify existing law to allow the approval authority to be delegable unless specifically stated otherwise.

USAF Land Transfer to Galena, Alaska

Third, I request a no-cost land transfer from the Air Force to the city of Galena, Alaska. The western Alaska town of Galena was hit by a devastating flood in the spring of 2013 (the third major flood event in Galena in the past 50 years). Federal and State Disasters were declared, and more than $75 million ($56 mil Federal, $19 mil state) has been spent on recovery efforts thus far. While Galena has made great strides to recover from this terrible disaster, its residents are still vulnerable to catastrophic floods due to its location in the Yukon River flood plain. To eliminate the flood threat, the City of Galena would like to move to higher ground. They have done surveys of the areas, and found an optimal area above the flood plain in the former home of Campion Air Force Radar Station. I request language authorizing a no cost transfer of this land to the City of Galena.

Funding Requests

State Sponsored Aerospace Facilities Funding

I request a $10 million funding authorization request for State Sponsored Aerospace Facilities. In the enacted FY2014 NDAA, language was included to recognize the "legitimate role of state government sponsored aerospace infrastructure as space assets." This language specifically urged the Department of Defense to "consider" the use that state government capabilities can provide to the national security interests of the United States. As yet, DOD has taken no action or inquiry to pursue the Committee's initiative. It is my hope that the Committee will take the next step and specifically provide $10 million in authority, from currently existing funds, for DOD support of commercially licensed spaceports or launch and range complexes, which provide mid-to-low inclination orbits or polar high inclination orbits in support of the national security space program. A similar request was included in the enacted FY 2015 Consolidated and Further Continuing Appropriations Act, 2015.

Ground-Based Missile Defense & Sensors

I request that the Committee authorizes the PB-16 funding request for Ground-Based Missile Defense (GMD) and Sensors, which includes infrastructure at Fort Greely, Clear Air Force Station, and Erickson AFS. With North Korea's continuing volatility, I request that the Committee fully support these increases and the $1.763 billion for the GMD program. This funding will continue the development and sustainment of the GMD weapon system and fully fund the increase to 60 Ground-Based Interceptors at Fort Greely. I also support the $136.6 million to continue developing the Missile Defense Agency's Long Range Discrimination Radar System.

Alaska Military Construction

I request that the Committee authorizes the PB-16 funding request for Alaska Military Construction (MILCON). This funding includes several important MILCON projects in Alaska, totaling $79.2 million. These projects include $7.8 million for improvements to the Physical Readiness Training Facility at Fort Greely as well as $37 million to construct a F-35A Simulator facility and to add to and alter a Squadron Operations/Aircraft Maintenance Unit and $34.4 million to repair Eielson Air Force Base's Central Heat and Power Plant at Eielson Air Force Base. I request that the Committee fully supports these authorizations.

Civil Military Programs

I request authorization for the PB-16 funding level for Civil Military Programs, consisting of the National Guard Youth ChalleNGe (NGYC) and Innovative Readiness Training (IRT) Programs. NGYC is a critical tool to rehabilitate troubled teenagers. IRT, which contributes directly to military readiness and provides realistic training in a joint environment for National Guard, Reserve, and Active Duty members, prepares them to serve during a national crisis at home or abroad. I support the PB-16 level of $160.3 million for these programs.

F-35 Procurement & RDT&E

I request that the Committee authorizes the PB-16 funding level for the United States Air Force's procurement and research and development of the F-35A. As the Committee is aware, Eielson Air Force Base in Alaska is the Air Force's preferred alternative for the basing of PACAF F-35s. This funding is necessary to ensure the F-35 delivery timeframe stays on track for Eielson and other F-35 basing locations.

Language Requests

Expand Space-Available Travel

Section 662 in the enacted FY 2013 NDAA fully expanded the Space-Available Travel privilege to National Guard Grey Area Retirees and their Surviving Spouses. Unfortunately, the DoD recently reauthorized the Space Available program per the direction of the F& 2013 NDAA, and did not include Gray Area retirees as an included category for full Space-Available privileges. I request that the Committee include language—and the intent—of the aforementioned provision.

Report on Efforts to Reduce Energy Costs at Military Installations

While Alaskan military installations have incredible strategic value and incredible training ranges available to them, several also have high energy costs—among the highest in the Department of Defense (DoD). This report will require DoD to submit a report to the Congressional Defense Committees detailing the efforts to achieve cost savings at militaty installations with high energy costs. This report will include a comprehensive, installation specific assessment of feasible and mission-appropriate energy initiatives, an assessment of current sources of energy in areas with high energy costs, a comprehensive implementation strategy for feasible energy efficiency options, an explanation on how military services are working in collaboration to leverage lessons learned on energy efficiency solutions, and an assessment of State and local partnership opportunities that could achieve efficiency and cost savings. I request

Chairman Thornberry, Ranking Member Smith, and other members of the Armed Services Committee, I again thank you for giving me this opportunity. I encourage all of you to come to Alaska to see firsthand our strategic value, our incredible training areas, and the support Alaskans provide the military and its members. A strong defense presence in Alaska is not only vital to Alaska, but also vital to the national security of the United States.

Representative Blumenauer's Legislative Priorities for the FY16 Defense Authorization Act

Congressman Earl Blumenauer ■ Third District of Oregon ■ www.blumenauer.house.gov

- Chairman Thornberry and Ranking Member Smith, thank you both for allowing me to testify before your Committee this morning.

- My remarks will touch on two very different issues, but will be united by a single theme – demonstrating leadership by making difficult choices.

    - The first is finding the resources, despite a tight mandatory spending budget, that will enable Congress step up and do the right thing by authorizing additional Afghan Special Immigrant Visas.

    - The second is preventing the U.S. from committing to the complete rebuild of our nuclear arsenal in a way that goes far beyond what's needed and what this country can afford.

Afghan Special Immigrant Visas:

- I have been involved with the Special Immigrant Visa – or SIV – programs for nearly a decade and it's one that may not even exist, had it not been for the partnership that I've had with this Committee and your staff.

- As a result of your leadership, you have enabled the U.S. to protect thousands of brave Iraqis and Afghans who risked their lives to aid and protect our soldiers.

- These Iraqis and Afghans worked as guides, interpreters, and drivers, and for their service they continue to be persecuted and tortured.

- Too often, these men and women have found themselves trapped in a bureaucratic nightmare while they and their family members are at risk of being assaulted, kidnapped, tortured, raped, or killed simply because tbey were helping Americans.

- The endless waiting game and uncertainty these individuals and their families face as is an anxiety that does not stop at the borders of Iraq and Afghanistan.

    - It travels across seas and into the homes of our servicemembers when they return, feeling as if they've left a brother in arms behind, to fight on their own.

- Mr. Chairman, I would like to enter into the record – with your permission – two letters.

- The first is from a Mr. Marc Chretien (Kree-Tan), the former political advisor to General John Allen, former Commander of the International Security Assistance Force (ISAF).
- The second is from General Stanley McChrystal, former Commander of ISAF and of U.S. Forces in Afghanistan.

- These are two men who understand the strategic importance of the SIV programs better than anyone.
  - Both conclude by calling on us to ensure we fulfill our promises to our friends and allies, as well as our men and women in uniform, and to ensure the U.S. has a functioning, sustainable and transparent SIV program.
  - I have worked with several Chairmen of this Committee to do just that, and I look forward to doing so again this year.
- Thanks to reforms included in the last two Defense Authorizations, State has been able to increase processing rates, going from an embarrassing 32 SIVs issued in all of 2012, to an average of 400 SIVs issued each month since January of 2014.
- The SIV program is now functioning at a level nearly commensurate with the critical duty it aims to fulfill – keeping our promises to our allies.
  - As a consequence of this progress, however, the well of SIVs will soon dry up, and the ball is back in Congress' court to act.
- The Fiscal Year 2015 Defense Authorization included 4,000 additional Afghan SIVs; a two year extension of the Afghan SIV program; and, extended the applicant deadline until December 31, 2015.
  - While the life of the program is not in immediate danger of expiration, the number of authorized Afghan SIVs could be exhausted as soon as this summer, and no later than October of this year.
    - State only has roughly 1,600 SIVs remaining.
- The need for the program remains significant and goes beyond the currently authorized pool.
  - According to State, there are over 10,000 Afghan linguists' with pending applications.
- I understand that for this Committee, providing additional Afghan SIVs is not a matter of policy – you have, time and again, shown leadership and support.

- It is, however, one of resources. The fact that the SIV program must be paid for out of Mandatory Spending – versus discretionary – makes the funding question all the more difficult.

- While your Committee cannot provide all of the roughly 10,000 SIVs still needed, I urge you to provide no fewer SIVs than you included the final Fiscal Year 2015 Defense Authorization – which was 4,000.

  - With that commitment, I will also continue to work with our friends on the Appropriations Committee to help shoulder this duty.

- Congress must find a sustainable way to operate this program so we don't come to the brink of crisis each year. I hope that beyond this Defense Authorization I can work with you to settle that question.

Nuclear Weapons & Related Programs Budget:

- I know that finding a way to adequately support the SIV program is not the only difficult choice you'll have to make this year.

  - Another will be fending off the unnecessary drive by many on your Committee to rebuild our nuclear deterrent beyond what's needed and in a way that threatens combat readiness and operations.

- A recent report from the nonpartisan Congressional Budget Office estimates that U.S. nuclear weapons planning calls for spending more than $350 billion over the next decade, and other estimates predict up to $1 trillion over the next 30 years, to build a nuclear force that will far exceed what the administration and security experts have said will be needed to effectively deter a nuclear threat.

  - Such spending is not only problematic for taxpayers, but those deeply committed to a strong and capable military. We need to inject fiscal responsibility and strategic reality into the administration's nuclear weapons planning.

- Former military officials have acknowledged the administration's plan is unaffordable:

  - In 2013, former Vice Chairman of the Joint Chiefs of Staff, General James Cartwright, said of U.S. nuclear weapons modernization plans, "The challenge here is that we have to recapitalize all three legs [of the nuclear triad] and we don't have the money to do it."

  - The recent National Defense Panel report called these plans "unaffordable" and a threat to "needed improvements in conventional forces."

- Frank Kendall, Under Secretary of Defense for Acquisition, Technology and Logistics, has echoed similar sentiments, stating in December 2014 that "[w]e've got a big affordability problem out there with those [nuclear modernization] programs

- Not only are these plans unaffordable, but the scope is unnecessary:
  - The Pentagon's 2013 "Report on Nuclear Employment Strategy of the United States" declared "that we can ensure the security of the United States and our Allies [and] partners and maintain a strong and credible strategic deterrent while safely pursuing up to a one-third reduction in deployed nuclear weapons from the level established in the New START Treaty."
  - Other experts, including a commission chaired by former, General Cartwright, said the U.S. could go even lower without jeopardizing security.

- America must reconcile the facts: our Defense budget is already squeezed, a nuclear deterrent is irrelevant to current international security challenges such as ISIS, the Ebola virus in Africa or even Russian aggression in Ukraine.
  - And yet a nuclear deterrent is still a national security imperative nonetheless. Let's do this right – it's time for the U.S. to procure what it needs, and what it can afford.

- I have introduced the Smarter Approach to Nuclear Expenditures (SANE) Act – a bill that would save the United States approximately $100 billion over the next 10 years by reducing or eliminating unnecessary nuclear weapons programs.

- As your Committee considers the FY 2016 Defense Authorization, I urge you to consider the approach taken by the SANE Act so that we can adopt a more practical and stable nuclear deterrent to reduce costs and risks without compromising U.S. security or that of our allies.

- Thank you.

Statement of Steve Chabot,
Chairman, Committee on Small Business
Before the Committee on Armed Services of the House of Representatives
On the FY 2016 National Defense Authorization Act
April 14, 2015

Good morning, Chairman Thornberry, Ranking Member Smith, and Members of the Committee. I appreciate the opportunity to testify before you on the National Defense Authorization Act for Fiscal Year 2016 (FY16 NDAA). Let me begin by thanking the Committee for its longstanding collaboration with the Small Business Committee. In my 19 years on the Small Business Committee, I've enjoyed seeing this relationship develop, and in my first year as Chairman, I hope to continue the tradition. My testimony today will first address the Committee's current work on contracting, then discuss the Small Business Committee's contracting legislation this Congress, and will conclude with two other provisions worthy of the Committee's consideration.

I. H.R. 1597

I want to compliment Chairman Thornberry and Ranking Member Smith on H.R. 1597, the Agile Acquisition to Retain Technological Edge Act. H.R. 1597 has many provisions that will help our small business technological and industrial base. I think that many of the provisions in H.R. 1597 will help small businesses, and I hope that you will include them in the FY16 NDAA. Specifically, I hope that the Committee will incorporate the following ten provisions from H.R. 1597 in the NDAA:

1. *Sec. 501. Codification and amendment of Mentor-Protégé Program.* Providing permanency to this long running program will give greater certainty to small protégés, and their mentor firms. However, the Committee should consider expanding the pool of potential protégés to include small businesses, not just small disadvantaged businesses, women-owned small businesses, service-disabled veteran-owned small businesses, and qualified HUBZone firms. The Small Business Committee has a long standing policy of promoting parity between each of the small business programs, and would encourage this Committee to apply those principles of parity to the mentor-protégé program.

2. *Sec. 502. Amendments to data quality improvement plan.* Contract bundling and consolidation continue to be the top complaint of small contractors. When bundling and consolidation are unjustified, it restricts competition without providing a measurable benefit to offset the loss of opportunity. Consequently, since 1997 the Small Business Act (the Act) has required that federal agencies justify the decision to bundle contracts, and take the appropriate steps to mitigate that decision. Unfortunately, eighteen years after the Act was amended, agencies continue to fail to simply identify contracts as bundled. This provision will require the federal government to implement a plan to improve the quality of bundling and consolidation data.

3. *Sec. 503. Notice of contract consolidation for acquisition strategies.* Small businesses are permitted to challenge bundling and consolidation at the Government Accountability Office. However, since consolidation and bundling justifications need not be published for a year after the award of the contract, it makes it impossible for small businesses to

challenge the underlying merits of the decision. This provision solves that problem by requiring agencies to publish justifications concurrent with the solicitation.

4. *Sec. 504. Clarification of requirements related to small business contracts for services.* The Nonmanufacturer Rule (NMR) was always envisioned by Congress, and interpreted by the Small Business Administration (SBA), as a protection against front companies when contracts for goods were restricted to small businesses. In the case where a contract is set aside for small businesses, the government has a vested interest in the small business actually performing the work, or manufacturing the goods, so various limitations on subcontracting are codified in the Act. However, some small manufacturers sell through other small businesses, or incorporate the product of another small business when fulfilling orders for multiple different items. For that reason, the NMR was created – it requires that when a small business accepts a set-aside contract for goods, the small business either manufacture the product, purchase the product from another small manufacturer, or obtain a waiver. This keeps small businesses from receiving contracts and then simply reselling goods from a large manufacturer. Unfortunately, the Court of Federal Claims has begun applying the NMR to service contracts. SBA and the Committee on Small Business both agree that this is inappropriate, and does not protect the government against fraud. This provision will preserve the long standing interpretation of the NMR.

5. *Sec. 505. Review of Government access to intellectual property rights of private sector firms.* According the SBA Office of Advocacy (Advocacy), of high patenting firms (15 or more patents in a four year period), small businesses produced 16 times more patents per employee than large patenting firms. However, the government's arcane approach to intellectual property rights often acts as a barrier to entry for small businesses. Thus, any improvements in the current system would be welcome.

6. *Sec. 507. Extension of defense research and development rapid innovation program.* I applaud the effort to extend the Defense Research and Rapid Innovation for another five years. This program, which has existed for five years, successfully allows innovative companies to quickly meet the Department of Defense's critical needs.

7. *Sec. 704. FAR Council membership for Administrator of Small Business Administration.* The SBA plays an important role in the procurement process. The SBA's rules govern nearly $100 billion in prime contracting each year, and another $300 billion in subcontracting. This is more than the General Services Administration and the National Aeronautics and Space Administration combined. However, regulations governing these dollars are bifurcated into both the SBA's regulations in chapter 13 of the Code of Federal Regulations, and the Federal Acquisition Regnlation (FAR). This means that when Congress passes laws regarding small business contracting, SBA must publish a proposed regulation, followed by a final regulation, then the FAR Council publishes a proposed regulation, and then a final regulation. This process is time consuming, unwieldy, and results in conflicting rules. For example, Congress passed small business procurement reforms as part of the Jobs Act of 2010, the FY13 NDAA, FY14, NDAA, and FY15 NDAA. While some of the reforms from the 2010 law have been

implemented, many are still outstanding five years later. One change from the FY13 NDAA has been implemented by both agencies, but the rest are still pending. At this pace, the final rules from the FY13 NDAA should be implemented in late 2018 or early 2019. These delays force small businesses and contracting officers to deal with conflicting regulations that do not reflect the actual state of the law, and to incur huge compliance burdens. When the final rules are ultimately implemented, the dual rulemaking process results in conflict between chapter 13 and the FAR. Incorporating SBA into the FAR Council will streamline this process, but also provide industry with a stronger voice in the rulemaking process, as SBA is likely to be more concerned with compliance burdens on contractors than other agencies.

8. *Sec. 705. Independent study of matters related to bid protests.* Bid protests remain an item of consternation for small businesses. While there were 2,561 bid protests last year, that number should be seen in context – there are over 300,000 companies registered to business with the federal government, and there were over 15 million contract actions during that period. While there are certainly abuses of the protest process, there are also reports from many small businesses that they will not protest over fears of retribution from contracting agencies. I hope that the study and recommendations will help ensure that neither the protest process nor the meritorious protestor are abused.

9. *Sec. 706. Procurement of commercial items.* As many small businesses sell commercial goods and services, any effort to streamline the process by which an item is considered a "commercial item" will reduce the burden on those small contractors. The current process acts as a barrier to entry for many innovative companies, which in turn means that the federal customer does not always have access to the best available solution.

10. *Sec. 710. Amendments to certain acquisition thresholds.* Increasing the simplified acquisition threshold will relieve many small businesses of unnecessary compliance burdens, while also making it easier for the government to competitively contract for routine goods and services. It is expected that this will make it easier for new government contractors to access the federal marketplace.

I believe that all of these provisions will enhance the federal procurement process, and I again commend you for this effort.

II. H.R. 1481

In addition to H.R. 1597, I believe there are other common sense reforms we can work on together. As you know, the federal government spends nearly half a trillion dollars through prime contracts each year. Ensuring that small businesses can compete for these contracts offers several benefits – business growth, job creation, greater competition, lower prices, and innovation. Over the past few months, the Small Business Committee has held three hearings on small businesses in the industrial base. I'd like to briefly share our findings, which led to the introduction of H.R. 1481, the Small Contractors Increase Competition Act of 2015.

As discussed at hearings on February 12, 2015, March 17, 2015, and March 19, 2015, the Small Business Committee is concerned that the small business goaling process is being misused to the detriment of small businesses, and is giving an inaccurate view of the health of the small business industrial and technological base. Under the SBA's scorecard system, the federal government received an "A" grade for FY 2013.[1] While an "A" grade and a reasonable percentage of small business prime contracting dollars would seem to indicate that a healthy percentage of dollars are being awarded to small businesses, it is not reasonable when Chart 1 shows that the use of small businesses is declining even as the percentage of dollars awarded to small businesses increases. Additionally, it is worth noting that in obtaining its A, the federal government did not meet half of its numerical goals.[2]

Chart 1. Small Business Contracting FY10-FY14[3]

FY	Total Contract Dollars (in Billions)	Total Small Business (SB) Dollars	Total Number of SB Actions	Total DoD Contract Dollars	Total DoD Small Business Dollars	Total Number of DoD SB Actions	Average Value of Small Business Contract Action	Average Value of DoD Small Business Contract Action
11	$549.6	$103.6	3,346,553	$374.1	$60.4	2,325,622	$30,957.23	$25,971.55
12	$518.3	$100.0	2,584,893	$290.1	$60.2	1,453,952	$38,686.32	$41,404.39
13	$462.3	$91.9	1,560,467	$308.5	$50.0	711,998	$58,892.63	$70,224.92
14	$444.7	$98.9	1,390,987	$284.7	$55.6	745,626	$71,100.59	$74,568.22

From FY11 through FY14, the percentage of dollars awarded to small businesses increased each year, from just over 18 percent to approximately 22.25 percent.[4] At the same time, despite a decline in overall federal spending, the dollars awarded to small businesses remained fairly constant during this period. While this would normally be heralded as a success, a deeper dive into the numbers shows that the number of small business contract actions fell by almost 60 percent and the average size of a contract action increased 230 percent. This reflects that fewer small businesses are winning contracts, but those contracts are worth more, which may indicate

[1] SBA, "FY 2013 Procurement Scorecard," *available at* https://www.sba.gov/sites/default/files/files/FY13_Government-Wide_SB_Procurement_Scorecard_Public_View_2014-04-28.pdf (*last accessed* February 26, 2015).
[2] SBA, "FY 2013 Procurement Scorecard," *available at* https://www.sba.gov/sites/default/files/files/FY13_Government-Wide_SB_Procurement_Scorecard_Public_View_2014-04-28.pdf.
[3] *Id.*
[4] Analysis based upon FPDS, *available at* https://www.fpds.gov (last accessed January 28, 2015). Copies of reports are on file with the Committee.

that some small businesses are doing very well but many others are losing opportunities to compete.

Alarmingly, at the Department of Defense (DoD), which is arguably a better reflection of the federal government's ability to maintain a healthy industrial base capable of supporting defense programs, the results were worse. The percentage of contract dollars awarded to small businesses at DoD increased from just over 16 percent to just over 19 percent, but the actual dollars only fluctuated by about 10 percent. The number of small business contract actions at DoD fell by almost 70 percent, and the value of those contract actions rose by nearly 290 percent.

The declining number of contract actions with small businesses cannot simply be explained by shrinking budgets or sequestration, because during the same period, the number of contract actions with large businesses increased by 8 percent. However, the dollar value of the average contract action with a small business increased 230 percent, meaning that fewer small companies are getting contracts, but the contracts they get are getting much bigger.

Furthermore, the number of companies registered to do business with the federal government has dropped by over 100,000 from 2012, so that only 273,072 small businesses are still registered to compete for federal contract.[5] This speaks to a greater problem in the industrial base—a declining participation rate.

SBA Advocacy recently highlighted this small business participation problem. Specifically, Advocacy identified 23 industries in which the government spends over $500 million per year, but where less than 10 percent of procurements are awarded to small businesses.[6] These are areas important to the industrial base where small businesses are not participating, but this is not reflected in the current scorecard process.

Consequently, I recommend three legislative changes to the small business goaling process, each of which is included in H.R. 1481. I strongly encourage you to include each of the following three provisions, identified by their section in H.R. 1481, in the FY16 NDAA.

1. *Sec. 101. Amendment to Governmentwide goal for small business participation in procurement contracts.* This section requires that SBA work to increase the number of industries in which small businesses compete for contracts. Currently, there are gaps in our industrial base but no policy of encouraging small businesses to compete for work in these areas, which exacerbates the problem and leads to less competition and higher prices.

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[5] Data retrieved from the System for Award Management, *available at* www.sam.gov (*last accessed* January 28, 2015). This number is down by over 100,000 small businesses from 2012, when DSBS reported 382,092 active small businesses.
[6] SBA Advocacy, EVALUATION OF THE SMALL BUSINESS PROCUREMENT GOALS ESTABLISHED IN SECTION 15(G) OF THE SMALL BUSINESS ACT 41-42 (2014).

2. *Sec. 102. Including subcontracting goals in agency responsibilities.* Currently, when considering whether senior agency executives are eligible for bonuses, agencies must look at whether they met the small business prime contracting goals. However, agencies don't look at whether the agency is meeting its subcontracting goals. As a consequence, the percentage of subcontract dollars awarded to small businesses has been falling, and is down 2.5% since 2010. Make no mistake about the significance of subcontracting: in FY 2013, small businesses received $86.7 billion in subcontracts. Subcontracting is an important entry point for federal contractors. Therefore, this provision holds senior agency officials accountable for meeting all the goals.

3. *Sec. 103. Scorecard program for evaluating Federal agency compliance with small business contracting goals.* This provision redirects SBA's scorecard program. Currently the program allows SBA to award "A" and "A+" grades to agencies that fail to meet the goals. As implemented now, only 10 percent of an agency's grade looks at its subcontracting achievements, even though if all the goals had been met in FY 2013, prime contracting would have only accounted for 0.001 percent more dollars that subcontracting.

   This legislation would require that SBA look at all five prime contracting goals, all five subcontracting goals, grades, the number of each type of small businesses awarded contracts in each industry each year, and the number of each type of small businesses competing for contracts in each industry each year. Thus, while it still would place a premium on dollars awarded to small business prime contractors, it would also encourage a greater small business participation rate to increase competition and improve the health of the industrial base.

In addition to the Small Business Committee's work on goaling, we also examined procurement practices that inhibit small business competition. As discussed at hearings on February 12, 2015, March 17, 2015, and March 19, 2015, the Small Business Committee is concerned that current procurement practices are limiting the ability of small businesses to compete and thereby undermining the federal procurement process. While H.R. 1597 addresses many of these, I would also request that you include two additional provisions:

1. *Sec. 301. Joint venturing and teaming.* The Act encourages small businesses to team and joint venture, and the SBA will approve joint ventures to facilitate small businesses participating on federal contracts. In the 112th Congress, this Committee successfully passed legislation as part of the National Defense Authorization Act for FY 2013 to make it easier for small businesses to team by changing the limitations on subcontracting. However, small businesses that do team and joint venture are often unsuccessful at winning contracts because some agencies have stated that the agency will only consider the past performance or financial responsibility of the joint venture or the prime contractor, not the small business members of the joint venture or the parties to the team.

As many joint ventures are never populated – especially small business joint ventures – this all but disqualifies the small business from competition. This provision requires that contracting officers look as the qualifications of team members and members of the joint venture.

2. *Sec. 302. Restrictions on reverse auctions.* As defined by this provision, reverse auctions are an auction between a group of offerors who compete against each other by submitting offers for requirement, and offerors have the ability to submit revised offers with lower prices throughout the course of the auction. When used properly, reverse auctions are an important tool that may benefit taxpayers and contracting agencies. However, when used inappropriately, reverse auctions may place taxpayers, warfighters and small businesses at risk. GAO has issued reports calling for reforms of the reverse auction process, and two bid protests have been sustained this month because of abuses of reverse auctions. Therefore, this language creates a new section of the Act to limit the use of reverse auctions when using small business contracting authorities. Specifically, it requires training of contracting officers, and prohibits the use of reverse auctions for sole source contracts or contracts with inadequate competition. It also states that reverse auctions should only be used when the good or service being purchased can be considered only either technically acceptable or unacceptable. This provision requires that the government communicate honestly with bidders regarding the ranking of offers, as some reverse auctions have misled offerors regarding the status of bids. The bill also makes it clear that when using a third-party reverse auction service, the government must still follow all of the normal procurement rules, as there are cases where a third party provider is excluding companies from competing or using third party data to inform responsibility determinations. Finally, the provision states that reverse auctions may only be used for contracts other than contracts for construction, goods used to protect people from bodily harm, and technical goods and services.

Finally, in an effort to operate more efficiently, SBA has suggested that the following changes would allow it to save money and better serve taxpayers:

1. *Sec. 402. Training requirements for Procurement Center Representatives.* SBA's Procurement Center Representatives (PCRs) act as advocates for small contractors within federal agencies. Current law requires that PCRs have the highest level federal contracting certification, making it difficult to hire qualified individuals in some areas without incurring relocation expenses. This provision gives SBA one year from the date of hire to train the PCRs.

2. *Sec. 403. Training requirements for Business Opportunity Specialists.* SBA's Business Opportunity Specialists (BOS) work with small contractors in the district offices. Current law requires that BOSs have an entry level federal contracting certification, making it difficult to hire qualified individuals in some areas without incurring relocation

expenses. This provision gives SBA one year from the date of hire to train the BOSs. At the suggestion of the Small Business Committee's Ranking Member Nydia Velázquez, I would further suggest expanding this provision to cover Commercial Market Representatives.

The Small Business Committee has received testimony supporting provisions of the bill from the American Council of Engineering Companies, Mechanical Contractors Association, Women Impacting Public Policy, Veterans Entrepreneurship Task Force, the American Legion, and the Professional Services Council. The bill has also been endorsed by the National Defense Industrial Association, Mid Tier Advocacy, Associated General Contractors, the American Institute of Architects, and the National Electrical Contractors Association. H.R. 1481 was successfully marked up and reported with bipartisan support on March 25.

III. Other Considerations

In addition to H.R. 1597 and H.R. 1481, I'd ask the Committee to include H.R. 838, the Security in Bonding Act of 2015, and H.R. 1666, the Design Build Efficiency and Jobs Act of 2015 in the FY 16 NDAA. H.R. 838 is a no-cost provision that makes it easier for small businesses to obtain mandatory surety bonds. This legislation also requires that the surety bond presented to the government have the assets to back the bond, which decreases the risk for taxpayers.

H.R. 1666 seeks to reform the design-build contracting process. The current process is so cost intensive that many qualified companies forgo the federal marketplace entirely. H.R. 1666 simplifies the process, reducing the amount of paperwork initially required from contractors, while also alleviating the workload on contracting officers. This implements a best practice already successfully used by the Corps of Engineers, and applying this policy governmentwide is good for taxpayers, agencies, small businesses, and large businesses.

IV. Conclusion

In conclusion, I know that we agree that our nation deserves vital small business industrial base: it is fundamental to the health of our nation as a whole. I look forward to working with this Committee to ensure that small businesses remain continue to provide the Department of Defense and the federal government with innovative and competitive solutions to support critical programs. I'd be happy to answer any questions.

Rep Blackburn Testimony

Chairman Thornberry, Ranking Member Smith, and Members of the Committee, thank you for allowing me to testify this morning.

As you may know, I represent the Seventh Congressional District of Tennessee which is home to the brave men and women of Ft. Campbell.

Ft. Campbell is home to the storied 101st Airborne, the 5th Special Forces Group and the Army's 160th Special Operations Aviation Regiment. Nearly 1,900 Officers and 26,500 enlisted personnel call Ft. Campbell home.

Like many installations across the country, Ft. Campbell is facing reductions that will have an impact on military readiness programs.

I was pleased to work with this committee last year in support of the Army Flying Hours Program. This vital program provides aviation training resources for individual crewmembers and units according to approved aviation training strategies. In addition, it also provides individual and collective proficiency in support of ongoing combat and non-combat air operations.

For aviation units like the 101st Airborne, this training is not only vital to mission success but to the safety of our soldiers.

Due to Army budget constraints, Army aviators will only be provided with 9.3 hours of training- per crew- per month. This is below the requested increase to 11.3 hours of training per crew-per month.

Currently, Active Army Combat Aviation Brigades have a $55 million shortfall in meeting 100% of their critical requirements. Without the necessary funding, home station training opportunities will not be available to achieve optimal combat readiness.

I ask the members of this committee to once again pay close attention to restoring the Army Flying Hours Program to its full capacity in FY 16.

I would also like to bring to this committee's attention that further reducing our nation's Armed Forces will hamstring our ability to meet the challenges and threats of an increasingly destabilized world.

As America withdraws from the international community, countries like Russia are becoming increasingly brazen.

We see it in the annexation of Crimea by Russian-backed separatists, civil war in Yemen and Syria, and China's military buildup.

As discord continues to grow around the world, the United States must have the personnel and capabilities to respond and protect our national interests.

If Ft. Campbell is required to reduce its active-duty personnel from 26,500 to 16,000, I worry about our ability to defend ourselves from threats and project power internationally.

Ft. Campbell is already one of the most heavily deployed bases in the country. If it suffers a troop reduction, it will be felt.

When Ebola was spreading through West African countries, it was 700 soldiers from the 101st Airborne Division at Ft. Campbell that were deployed to build medical facilities and contain the outbreak.

In the spring, 700 more soldiers from the 101st will be deployed to Afghanistan.

Soldiers from Ft. Campbell are always tasked with response to threats made against our security around the globe.

Thank you for allowing me to testify this morning. I stand ready to work with this committee on strengthening programs and reviewing processes that are vital to our national defense.

Prepared statement from Rep. Louie Gohmert (TX-01)

After the attack on our military at Ft. Hood, we suffered another shooting on a military installation here at the Naval Yard, followed by the Obama administration appearing to do nothing effective to prevent such future attacks.

Our military members may be authorized overseas to carrying automatic weapons, shoot RPGs, drop bombs, fire tanks or missiles, so **why shouldn't they be able to carry a weapon on military installations here in the United States**?

Some commanders have an issue with either concealed carry or open carry or both. Some commanders have said that there are some people overseas we don't let carry weapons, and we know from experience that some have returned suffering potentially from PTSD who need to be checked out. Fine. If someone wishes to carry on a military installation, let them go through a check first, then allow them.

At a minimum, we should have military members in addition to MP's who are authorized to carry weapons, at least during their time as a person in charge of a particular area such as a duty officer or enlisted member.

As an article by Arthur Berg in The Wall Street Journal once said, these people want to conclude their attack themselves. So, if they are afraid someone will shoot them before they conclude it, then they would not commit the attack to begin with. Former Chairman McKeon had committed to pushing for language in a previous conference report to address these concerns, but was unsuccessful.

I would ask that the Committee please address this issue in the NDAA. I just know we have gotten military members killed twice, and to prevent our military members trained with weapons from defending themselves on their own military installation should be unconscionable.

On a different note, I visit with so many friends who are in different services of our military, and heard from a few just in the last week including one at Ft. Hood on Friday about an issue I would also ask be addressed in this bill. It is regarding the prohibitions in the free exercise of religion that some commanders enforce. We have individual Christians or Christian Chaplains who are told that they cannot end their prayer "in Jesus name." The Bible says Jesus told his followers that to ask for things "IN MY NAME." No Commander who has ever ordered a Christian not to mention Jesus would ever tell a Muslim you cannot mention the name of Allah. So Christians simply ask for the same protection for their religious beliefs.

One other issue: At Ft. Hood after the presentation of Purple Hearts last Friday, I was shocked to find out that the normal benefits that go with a Purple Heart were not accompanying the medal. One of the wounded with permanent scars and damage told me after I apologized for her not yet getting the Purple Heart benefits, said, "Sir, it was like the Army saying 'You don't really deserve a Purple Heart, so we will give you the medal but you don't get the normal benefits because you don't really even deserve the medal.' " Another soldier pointing to a Ft Hood victim with obvious significant skull damage said maybe he'd deserve benefits if he had only gotten a scratch like Secretary Kerry did in Viet Nam instead of being shot in the head.

Murderer, Traitor & Enemy Combatant Hasan gave repeated warning to senior Army officers that if he were ordered to deploy, he would have to protect what we know are radical Islamist enemies. He even quoted the identical jihadist texts used by al Qaeda from the Koran. He was clearly participating in the war against the U.S. military. If the Army needs money to pay the benefits to those at Ft. Hood who actually deserved the Purple Hearts, you could direct the firing of those who are denying benefits to such worthy American soldiers and give their pay and benefits to our Ft. Hood patriots."

JOHN P. SARBANES
3RD DISTRICT, MARYLAND

COMMITTEE ON
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April 13, 2015

The Honorable Mac Thornberry
Chairman
Committee on the Armed Services
US House of Representatives
Washington, DC 20515

The Honorable Adam Smith
Ranking Member
Committee on the Armed Services
US House of Representatives
Washington, DC 20515

Dear Chairman Thornberry and Ranking Member Smith:

I submit this testimony to express my strong support for two important military construction projects at Fort George G. Meade for the National Security Agency (NSA). These projects – the NSAW Campus Buildings Feeders Phase 2 and the NSAW Recapitalization Building #2, Increment 1 – are both in the President's FY 2016 budget.

I support authorization of the NSAW Campus Buildings Feeders Phase 2 Project. The existing feeders and physical infrastructure surrounding them have exceeded their service lives and are not able to meet requirements for the increasing power demand. Upgrading the feeder size and building them to modern standards will contribute to overall improved electrical reliability across the NSA campus. As the NSAW campus electrical loads increase to meet demand, the risks of unplanned outages resulting from excessive thermal loading poses a risk to the currently inadequate electrical distribution duct bank, conduits, and medium voltage power feeds. Without this project, NSAW will continue operating under progressively reduced levels of power reliability.

I also support authorization of the NSAW Recapitalization Building #2, Increment 1 project. The NSA recapitalization plan calls for the phased replacement of aging facilities that have exceeded their service life and can no longer support the technology required for new missions. This facility is needed to provide an environment necessary for support mission operations. With authorization for this project, NSA will be able to further implement the recapitalization plan, and will not continue to overburden existing facilities and infrastructure, which impedes the ability to effectively operate and meet its mission.

Ft. Meade has continued to grow as other military installations have shrunk because of the critical role it plays in our Nation's security. As home to the NSA and to U.S. Cyber Command, Ft. Meade is at the forefront of the modernization of our Armed Services, and I urge the Committee's support for these necessary improvements.

Sincerely,

John P. Sarbanes
Member of Congress

BLAINE LUETKEMEYER
MEMBER OF CONGRESS
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COMMITTEE ON
FINANCIAL SERVICES
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COMMITTEE ON
SMALL BUSINESS

Testimony for the Record from
Rep. Blaine Luetkemeyer (MO-03)
U.S. House of Representatives
April 13, 2015

"Member Day - National Defense Priorities from Members for the FY 2016 National Defense Authorization Act"

I would like to express my support for a strong, prepared and technologically-advanced national defense. Our defense capabilities should remain second to none throughout the world on all military aspects including in the air, on the sea and on the ground.

While we must be selective and make intelligent and sometimes difficult choices on spending, we should not jeopardize our nation's security or ability to innovate and advance. Like many of my colleagues I agree that every federal agency should do more with less, including the Department of Defense. However, cuts that present immediate or future risks to national security or the safety of our men and women in uniform should be avoided at all costs.

As you consider requests for Fiscal Year 2016 I would like to highlight the F/A-18 aircraft as an area that drastically affects national security and numerous small businesses in Missouri. As you know, the president's budget proposal for FY 2016 does not include any funding for the F/A 18 line which includes the F/A-18E/F Block II Super hornet and the E/A-18G Growler. The Super Hornet provides the Navy with superior strike capability from aircraft carriers and the Growler is the premier carrier-based electronic warfare aircraft for the Department of Defense.

The importance of these aircraft was reflected by Chief Naval Officer (CNO) Admiral Jonathan Greenert in his testimony before Congress last month, and in the Navy's unfunded requirement request for 12 additional F/A-18F Super Hornet strike fighters which have the ability to be converted into and E/A-18 G Growler.

I thank you for your tireless efforts to ensure that our national defense remains strong and our men and women in uniform stay as safe as possible. Your consideration of the aforementioned request is greatly appreciated.

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Rep. Fitzpatrick Testimony

I'd like to begin by thanking both Chairman Thornberry and Ranking Member Smith for allowing me the opportunity to be here today.

With the continued threat of terrorism to the homeland, each of us only has to remember back to the attacks of 9/11 to comprehend the devastation caused when our nation's airliners are turned into weapons.

That is why, I am asking for the House Armed Services Committee's help in protecting our skies from terror hijackings by requiring any aircraft that participate in the Department of Defense Civil Reserve Air Fleet program to secure their cockpits by installing secondary barrier doors

These secondary barriers are light, inexpensive wire gates that protect the flight deck while the cockpit door is open. While it is true that cockpit doors have been strengthened in light of terrorist attacks, the preventative measure only works when it is closed – what happens when a pilot needs to open the door to eat or use the restroom during the course of the flight? This lapse in security can provide an attacker just enough time to strike and take control of the plane. In fact, a video has surfaced online that shows it takes only two seconds for a terrorist to breach the cockpit once the door is opened under current protocol.

The recent Germanwings tragedy shows us the danger when someone with bad intentions is able to lock themselves behind the reinforced door. Unlike the heroic efforts of the passengers of United 93 that crashed in my home state of Pennsylvania on September 11th, there is almost nothing the passengers can do to retake the aircraft in this very real scenario.

As a Congress, we are tasked with many responsibilities – chief among them, the protection of our constituents and our country. We can no longer ignore this obvious hole in our anti-terror measures. This Congress must act now, in any method possible, to address this shortcoming.

If there is one thing Al Qaeda or ISIS seeks, it is a high profile attack that is cheap for them to execute. And right now, for the cost of one trained extremist, and a first class ticket, Al Qaeda or ISIS can turn our aircraft into a weapon once again.

This is our reality:

- Earlier this year, ISIS sympathizers were arrested by law enforcement in New York City and found to have had plans to hijack an aircraft. [1]
- Last month, a passenger on a United Airlines flight rushed the cockpit.
- 3 weeks ago, the whole world was tragically shown the heart-wrenching consequences of this danger when someone locked the pilot out of the cockpit and deliberately crashed Germanwings Flight 9525

[1] http://www.cnn.com/2015/02/25/us/new-york-terror-plot/

Rep. Fitzpatrick Testimony

As pilots will tell you, this isn't a hard fix. A 2013 study found that secondary barriers are "very cost-effective," require little maintenance, and "reduce risk...at a modest cost."

Pilots, flight attendants, and federal law enforcement have been making the case to have these doors on every aircraft. Last Congress, 60 members of the House and 10 Senators joined our effort understanding that the mandate of the 9/11 Commission to protect the cockpit will only be realized when every passenger aircraft in the country is secured with these cost-effective barriers. Nearly One Third of the 38 cosponsors on my bill, H.R. 911, that adds secondary barriers to every single aircraft in the country, are members of the Armed Services Committee.

My ask today is much more tailored. The NDAA is one way Congress can work to at least eliminate this glaring vulnerability that is putting our troops at risk. We must guarantee that any aircraft that transports our brave men and women in uniform is never turned into a weapon, and our troops into helpless victims.

Here's how we can fix this. As you know, the Department of Defense, in partnership with the U.S. airline industry, operates the Civil Reserve Air Fleet, or CRAF.[2] In exchange for the air carriers committing a limited number of aircraft to this program, the airlines receive the opportunity to do business with DOD. In fact, a Government Accountability Office report shows that the airline industry has received over $30 billion in business since 2001 through the CRAF program.

Only about 350 aircraft would be effected by this requirement.[3] But those are the 350 aircraft that transport some of our most precious cargo—our troops.

The warnings and the threats are clear. In 2013, outgoing FBI Director Robert Mueller said the terror scenario he fears most remains an attack on an aircraft.[4] Our nation's first Homeland Security Secretary Tom Ridge was just on Fox News talking secondary barriers as a way we can secure the cockpit when that reinforced door is opened.[5]

We cannot ignore all these warnings. I ask for your help now to begin this process through the NDAA. Let's put these cost-effective security measures on any aircraft that transports our men and women in uniform.

I appreciate the opportunity to address the committee and I would be happy to answer your questions.

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[2] http://www.amc.af.mil/library/factsheets/factsheet.asp?id=234

[3] https://www.faa.gov/about/office_org/headquarters_offices/apl/aviation_forecasts/aerospace_forecasts/2014-2034/media/2014_FAA_Aerospace_Forecast.pdf

[4] http://www.usatoday.com/story/news/nation/2013/08/22/mueller-fbi-doomsday-aircraft-attack/2685025/

[5] http://video.foxnews.com/v/4138927414001/tom-ridge-on-critic-slamming-move-to-reinforce-cockpit-doors/?#sp=show-clips

Rep. Ellmers Testimony

April 13, 2015

FY15 NDAA HASC Member Testimony Day

I. Introduction

- Thank you Chairman Thornberry and Ranking Member Smith for allowing me to testify today before the House Armed Services Committee.

- My staff is happy to follow up on any issue and provide additional information.

II. 440th Airlift Wing

- Mr. Chairman, I am the proud representative of the Second District of North Carolina, which is home to Fort Bragg.

- I would like to draw attention to an incredibly shortsighted decision the United States Air Force has made – which is the deactivation of the 440th Airlift Wing located at Pope Army Airfield in Fort Bragg.

- The 440th Airlift Wing is the only C-130H model wing in the country that the Air Force is choosing to close completely—and this is occurring at the busiest airfield in the world for training requiring tactical airlift.

- The Air Force wishes to remove all organic airlift from Pope Army Airfield and away from the 18th Airborne Corps and the 82nd Airborne Division's Global Response Force as well as Army Special Forces Groups.

- This is a decision that essentially takes the air out of airborne, as planes have been located at Pope since 1954.

- The removal of the 440th Airlift Wing at Pope Army Airfield not only lacks strategic merit but it injects avoidable and unreasonable risks into the readiness of some of the most unique and rapid deployment forces our nation's military has to offer.

- To say that I have serious reservations and concerns regarding this decision is a severe understatement.

- This ill-conceived proposal comes at a time when our nation is facing growing uncertainty abroad that could require a military response that only forces at Fort Bragg can provide.

- This Joint Mission was formed over the last eight years to provide Airborne and Special Operation Forces with easily-accessible and high-quality training so they can carry out any mission they are asked without the tyranny of distance that is often created by bureaucratic, logistical and operational delays.

- Dismantling this local Airlift Wing for the use of out-of-state aircraft is a mistake, and it is ultimately a decision that will damage our nation's military readiness.

- Eliminating the ability to rapidly mobilize, train and deploy with local commanders, aircrew, and aircraft that have an established relationship with our most in-demand forces increases risk at an unacceptable rate.

- The Air Force has repeatedly assured me that this will not impact military readiness but the very client the Air Force serves — the 18th Airborne Corps — disagrees.

- I have spoken with Lieutenant General Anderson, the commanding General of Fort Bragg, and there is a true feeling that this decision will impact his training abilities.

- This issue is **not** a partisan issue—but a national security issue.

- I am pleased to say that my North Carolina colleagues have rallied around me in both the House and the Senate in a bipartisan manner in order to prevent the Air Force from making this poor decision.

- I brought this fight to the attention of former Secretary of Defense Chuck Hagel and current Secretary Ash Carter.

- Just within the last month, I sat down with both North Carolina Senators and we met with the Secretary of the Air Force Deborah James and Chief of Staff of the Air Force General Welsh.

- It is my hope this Committee sees the vital role that the 440th provides in maintaining the readiness and operational standards of paratroopers and special forces stationed at Fort Bragg.

- Mr. Chairman, I respectfully request that you maintain the mission of the 440th Airlift Wing and it's C-130s.

III. Conclusion

- In closing, I believe it is more important than ever that the United States maintain its military superiority and continue to be the dominate force for freedom in the world.

- Thank you Chairman Thornberry and Ranking Member Smith for allowing me to speak before this distinguished committee and for

all of your hard work supporting our armed forces and military families.

- I look forward to working with this committee on the challenges facing our military.

Committee on Small Business
Before the Committee on Armed Services
Statement for the Record
April 14, 2015

Good morning, Chairman Thornberry, Ranking Member Smith, and Members of the Committee. I appreciate the opportunity to testify before you on the National Defense Authorization Act for Fiscal Year 2016 (FY16 NDAA). Let me begin by thanking the Committee for its longstanding collaboration with the Small Business Committee, including work on surety bonds and reverse auctions. I am here today to ask that we complete the work we started last Congress on these two issues. As a former construction contractor, I am very familiar with the challenges facing small contractors. Let me start by giving you an overview of the role of small construction contractors in the federal marketplace, then address surety bonding, then reverse auction issues that apply specifically to construction contractors, and finally I will discuss other abuses of reverse auctions that I have during my three years as Chairman of Subcommittee on Contracting and Workforce of the Committee on Small Business.

I. The Importance of Construction to Small Businesses and the Industrial Base

Construction and architectural and engineering (A&E) contracts account for about eight percent of federal prime contract dollars, these segments account for over 17 percent of the awards to small businesses.[1] Therefore, issues affecting construction and A&E contracts have a disproportionate effect on small business opportunities.[2] Of the contracts awarded by the federal government annually, approximately eight percent is spent on federal construction and A&E projects.[3] However, within the dollars awarded to small businesses, the percentage is over twice as high, exceeding 17 percent for federal construction and A&E work.[4] In FY 2012, the majority of those dollars were expended by the Department of Defense (DoD),[5] with nearly 60 percent of DoD's

[1] Analysis based upon the Federal Procurement Data System (FPDS), *available at* https://www.fpds.gov (last accessed March 6, 2012). Copies of reports are on file with the Committee.
[2] For purposes of this memorandum, federal construction means the initial construction, alteration, or repair (including dredging, excavating, and painting) of buildings, structures, or other real property. *See* 48 C.F.R. § 2.101, § 22.502 and § 22.502 (2010). A&E is statutorily defined as the professional services of an architectural or engineering nature performed by contract that are associated with research, planning, development, design, construction, alteration, or repair of real property, [or] other professional services of an architectural or engineering nature, or incidental services, which members of the architectural and engineering professions (and individuals in their employ) may logically or justifiably perform, including studies, investigations, surveying and mapping, tests, evaluations, consultations, comprehensive planning, program management, conceptual designs, plans and specifications, value engineering, construction phase services, soils engineering, drawing reviews, preparation of operating and maintenance manuals, and other related services" as regulated by state laws. 40 U.S.C. § 1102.
[3] Prime Award Spending Data, List View, USASpending.gov, *available at* http://www.usaspending.gov (last accessed May 9, 2012). The total spent was $516.9 billion in FY 2012, $535.9. billion in FY 2011, and $538 billion in FY2010.
[4] FPDS.
[5] *Id.*

spend coming through USACE.[6] Among civilian agencies, the General Services Administration (GSA) and the Department of Veterans Affairs (VA) were responsible for a major share of the work.[7] In each case, small businesses were well represented, with over 40 percent of total construction spend, and over 23 percent of A&E work. The federal sector is a significant and growing portion of the construction market, accounting for 40 percent of the value of ongoing overall private and public sector construction activity in 2010, compared to about 20 percent in the prior decade, with a special focus on industrial/heavy construction.[8] Unfortunately, the number of small businesses registered to compete for federal contractors is only 17,782 concerns,[9] out of 273,072 small businesses registered to compete for federal contracts.[10] To further highlight this contrast, in FY2014, there were 753,590 private construction companies in the United States.[11]

Table 2. FY 2012 Federal Contracts for Construction and A&E[12]

	Construction (Percent to Small Business)	**A&E (Percent to Small Business)**
Federal Government	$36,201,703,428 (43.82%)	$5,308,247,712 (26.21%)
DoD (including Army)	$25,914,807,888 (43.80%)	$2,688,833,491 (28.48%)
Army	$17,449,216,142 (41.05%)	$1,622,009,860 (47.21%)
GSA	$1,478,359,672 (42.21%)	$192,453,660 (38.57%)
VA	$2,617,159,564 (65.49%)	$310,020,545 (55.78%)

Given the importance of federal construction and A&E contracting to small businesses, it is surprising that less than seven percent of all registered small contractors are active in this sector, and that only about two percent of all construction contractors are pursuing federal work. Adopting commonsense reforms and best practices in construction and A&E contracting will improve the participation of small business construction contractors in the federal marketplace, thus increasing competition and improving the health of the industrial base.

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[6] GOVERNMENT ACCOUNTABILITY OFFICE (GAO), *PRIOR EXPERIENCE AND PAST PERFORMANCE AS EVALUATION CRITERIA IN THE AWARD OF FEDERAL CONSTRUCTION CONTRACTS*, GAO-12-102R, (October 18, 2011) *available at* http://www.gao.gov/products/GAO-12-102R.

[7] Prime Award Spending Data, List View, USASpending.gov, *available at* http://www.usaspending.gov.

[8] U.S. Census Bureau, Value of Construction Put in Place, Annual Data, *available at* http://www.census.gov/const/C30/ototal.pdf.

[9] Data retrieved from the Dynamic Small Business Search (DSBS) site *available at* www.dsbs.sba.gov (last accessed January 28, 2015).

[10] Data retrieved from the System for Award Management *available at* www.sam.gov (last accessed January 28, 2015). This number is down by over 100,000 small businesses from 2012, when DSBS reported a 382,092 active small businesses.

[11] Bureau of Labor Statistics, Construction NAICS 23, *available at* http://www.bls.gov/iag/tgs/iag23.htm. This does not include A&E contractors, nor does it distinguish between the size of companies.

[12] FPDS ad hoc report, *available at* https://www.fpds.gov (last accessed May 9, 2013). Copy on file with the Committee.

II. Surety Bonds

Surety bonds protect the government and small businesses alike by providing a third party guarantee that the prime contractor will complete construction, commonly call a performance bond, and that the prime contractor will pay its suppliers and subcontractors, commonly called a payment bond. Under federal law, to bid on most federal construction and A&E projects above $150,000, the prime contractor must provide the contracting officer with a surety bond, and both the performance and payment bonds become binding upon contract award.[13] Thus, when bonds are issued by a surety, the surety vouches for the creditworthiness and capacity of the contractor, protects the government against uncompleted projects and liens, and protects subcontractors against unscrupulous or over extended prime contractors. However, bonding itself creates problems if qualified small businesses cannot obtain the necessary bonding, or if the guarantor of the bond is not willing or able to meet its obligations, and then will discuss proposed legislation seeking to address these issues.

Access to capital prohibits some small businesses from competing for federal construction contracts. Federal construction contracts require that all offerors provide surety honds attesting to the businesses ability to perform the work and meet its necessary obligations. While the Small Business Administration (SBA) will guarantee bonds issued to small businesses, the terms are such that corporate bonding companies do not find the guarantees attractive. As a consequence, individual sureties have filled the void in the market. However, some disreputable individual sureties offer bonds backed by insufficient or speculative assets, placing the government and any subcontractors at risk.

The first challenge posed by bonding is that if a small construction company cannot provide the necessary level of bonding, a contracting officer will not accept their proposal no matter how technically well qualified the firm. The Small Business Investment Act (SBIA) sought to provide an avenue for small business bonding by creating two surety bond guarantee programs within the Small Business Administration (SBA).[14] Pursuant to the SBIA, SBA can use one of two programs to guarantee bonds for contracts up to $6.5 million: the Prior Approval Program (PAP)[15] or the Preferred Surety Bond Program (PSBP).[16] Pursuant to the PAP, SBA provides sureties with up to a 90 percent guarantee, meaning that if the small business fails to fulfill its obligations and the bond is called upon to pay subcontractors or tbe agency, SBA will reimburse the surety up to 90 percent of its cost. To obtain the guarantee, sureties must seek prior approval from SBA before issuing the bonds, and such approval is typically granted in three days. In contrast, the PSBP only

[13] 40 USC § 3131(b).
[14] 15 U.S.C. § 692 *et seq.*
[15] 15 U.S.C. § 694b(a).
[16] 15 U.S.C. § 694b(a)(3). The caps were increased from $2 million to $6.5 million pursuant to the National Defense Authorization Act of 2013, PUB. L. NO. 112-239 (2013). These provisions also made it possible for SBA to provide proportional coverage if notice requirements were not met.

pays a 70 percent bond guarantee, but sureties are preauthorized to issue bonds and audited every three years, and are not required to seek approval before issuing individual bonds.

To fund both programs, SBA charges the small business receiving the bond 0.729 percent of the contract price for the bond guarantee, and the surety company 26 percent of the fee the surety charges the small business. As of May 2013, there are approximately 7,494 active bonds with an actual bond liability of $2.9 billion.[17] Each program is operating at a zero subsidy from taxpayers.[18] Despite the different guarantee amounts and the differing levels of review, both the PAP and PSBP have similar levels of default. However, over the years, the PSBP program has become less effective for small businesses since only four sureties currently participate in the program because the guarantee rates are no longer competitive enough to encourage commercial sureties to participate.[19]

The second issue regarding bonding occurs when the surety cannot back its bonds, thereby exacerbating the very risks the bond is intended to mitigate. This problem is usually tied to a lack of assets associated with the surety. There are two types of surety-provided guarantees: corporate and individual. Corporate sureties are incorporated entities (often subsidiaries of insurance companies) that are certified to write surety bonds in one or more states in the United States, licensed and regulated by the state(s) where the surety does business, and approved by the Department of the Treasury, each of which ensure that sufficient assets exist to back the bonds.[20] However, this is not always the case with individual sureties. Individual sureties are not: 1) incorporated and usually are a single individual or a group of individuals who own or control a large amount of cash or other liquid assets; 2) licensed or regulated by state agencies; and 3) listed on the Department of the Treasury's list of approved corporate sureties. The assets serve as collateral to the project owners guaranteeing the project's completion. However, pursuant to the Federal Acquisition Regulation (FAR), an individual with surety needs only to pledge assets to the government, it does not need to allow the government to hold the assets.[21] In addition, an individual surety may pledge more volatile assets such as stocks and bonds traded on an exchange or rights in real property.[22] Thus, while the FAR does permit contracting officers (COs) to accept

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[17] E-mail from Frank Lalumiere, Director, SBA Surety Bond Program to Committee staff (May 13, 2013). (on file with the Committee).
[18] *Id.*
[19] *Id.*
[20] Surety and Fidelity Association, "About Industry" available at http://www.surety.org/?AboutIndustry. According to the Surety & Fidelity Association of America, corporate sureties generate $3.5 billion or more in written premiums annually from surety bonds. Because of their greater access to capital, corporate sureties dominate the industry, and have issued the majority of bid bonds, performance bonds, payment bonds, etc. Corporate sureties provide most of the bonding for federal construction projects and the Department of the Treasury maintains a formal list of federally approved corporate sureties. The Department of the Treasury's Financial Management Service (FMS) administers the surety bond program for the federal government pursuant to 31 U.S.C. §§ 9304-9308 . FMS's Listing of Approved Sureties (Department Circular 570), *available at* http://www.fms.treas.gov/c570/c570_a-z.html.
[21] 48 C.F.R. § 28.203.
[22] *See, e.g.* Richard Korman, *A Bold Individual Surety Claims His Coal-Back Bonds are Rock Solid*, ENGINEERING NEWS RECORD, Feb. 27, 2013, *available at*

individual sureties, the decision as to whether or not the bid bond is acceptable is left to the CO's discretion; and not all government COs are familiar with individual sureties and their acceptable assets.[23] If the CO does not adequately scrutinize the individual surety, and the individual surety pledges nonexistent or insufficient assets, or the assets are not readily convertible into cash to pay the obligations of the defaulted contractor, the federal government's construction project is at risk for failure and financial loss as are any small businesses that acted in reliance upon the bonds. In 2012, a hearing before the Subcommittee on Courts, Commercial and Administrative Law of the House Committee on the Judiciary provided detailed testimony on the risk these types of bonds pose to the government and small businesses.[24]

Last Congress, I introduced H.R. 776, the Security in Bonding Act of 2013, which was included in the House version of the FY 15 NDAA. This Congress, I have reintroduced the legislation as H.R. 838, the Security in Bonding Act of 2015. This legislation addresses both the issue of bonding availability and the problem on unscrupulous individual sureties. First, the legislation increases the guarantee rate on the PSBP to 90 percent, which should attract new sureties to the program. While agency briefings indicate that the program could cover this additional guarantee out of existing authorizations – the current program actually makes money – it is important to note that should the current funding not prove sufficient, SBA has the ability to increase the fees on the bonds to prevent cover additional costs. Both the Congressional Budget Office and the Office of Management and Budget agree that there will be no cost associated with this legislation.

Second, H.R. 776 confronts the problem of underfunded individual sureties by requiring that any asset pledged to back the bonds be reviewed by government officials and then deposited so that the government will have control of the assets should the company fail to meet its obligations. This would prevent sureties from pledging assets of dubious or speculative value, or from pledging the same assets numerous times. This provision also passed the House in 2012, as part of the FY13 NDAA. These issues are even more important in the time of shrinking budgets – we must ensure that the money spent on construction contracting is backed by a reliable bond.

III. The Use of Reverse Auctions for Construction and Construction Services

Reverse auctions are a contracting methodology that have become increasingly prevalent over the last decade, but which pose special challenges for small businesses and construction contractors, leading many to question whether additional legislative or regulatory guidance is required. In order to understand these challenges, this section will first explain reverse auctions, then

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http://enr.construction.com/business_management/ethics_corruption/2013/0225-a-bold-individual-surety-claims-his-coal-backed-bonds-are-rock-solid.asp.

[23] Under FAR § 28.203(c), if the contracting officer "determines that no individual surety in support of a bid guarantee is acceptable, the offeror utilizing the individual surety shall be rejected as nonresponsible."

[24] *Security in Bonding Act of 2011: Hearing Before the Subcomm. on Courts, Commercial and Administrative Law of the House Comm. on the Judiciary*, 112th Cong. (2012).

summarize the criticism of this methodology as it applies to construction, and finally discuss proposed legislative solutions.

The term "reverse auction" is not defined by statute or regulation. However, a 2004 USACE study explained it thusly:

> Under this reverse auction methodology, there is an 'auction' process whereby [contractors] offer multiple and consecutively lower bids on a rapid 'auctioning' basis to eventually arrive at the lowest bid-price of goods or services for the privilege of a standard contract award. In the case of government reverse auctions . . . [t]he government publicly solicits for specific goods and/or services from responsible and responsive contractors to provide these specific goods or services. The reverse auction process simply is the method by which contractors submit their bids and the lowest bid is received. The award is then executed through a standard firm fixed price contract.
>
> Yet, there is a major difference in the operational dynamics of the reverse auction methodology that is unlike anything available in the standard sealed bid process. In the standard sealed bid process, the contractor only gets only one chance to submit a bid. Additionally, the contractor does not know the relative ranking of his bid versus others during the bid process. Hence, in a standard sealed bid process, a contractor cannot bidgame, because he is forced to submit his best bid with only one chance to bid.[25]

Therefore, a reverse auction is a multi-round low-bid process where the lowest bids are disclosed. A typical reverse auction will be conducted for commodities – products that are standardized and where price is the principle differentiator.[26]

The use of reverse auctions for construction services has been denounced by most of the construction-related trade associations.[27] They allege that reverse auctions do not guarantee the

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[25] USACE, FINAL REPORT REGARDING THE USACE PILOT PROGRAM ON REVERSE AUCTIONING 11 (2004) (hereinafter USACE STUDY). Generally, the term "sealed bidding" is used to describe a process where bids are all submitted by a time certain, publicly opened and recorded, with immediate award to the lowest bidder; however, within the construction industry it is commonly preceded by a round when an offeror's technical capability is evaluated. 48 C.F.R. § 14.

[26] While the use of reverse auctions for commercial goods itself remains controversial, it is outside the scope of this memorandum.

[27] *See, e.g.,* Sheet Metal and Air Conditioning Contractors National Association, REVERSE AUCTIONS (2004), *available at* http://www.smacna.org/pdf/ACF6BF7.pdf; Chuck Scislo, *To the Lowest Bidder*, PROFESSIONAL ROOFING March 2006, *available at* http://docserver.nrca.net/technical/8633.pdf (National Roofing Contractors Association opposes reverse auctions); Associated General Contractors of America, WHITE PAPER ON REVERSE AUCTIONS FOR PROCUREMENT OF CONSTRUCTION 2005, *available at*

lowest price, may encourage imprudent bidding, do not allow for a thorough evaluation of value, do not assure that the successful bidder is responsive and responsible; and may contravene federal procurement laws.[28] When these auction are conducted by third parties, work that should be reserved for small business is frequently awarded to large businesses, and pricing information that the FAR insists remain private is publicized.[29] Indeed, even the chief legislative proponent of reverse auctions, former Congressman Tom Davis (R-VA), specifically exempted construction from any legislation he introduced promoting the use of reverse auctions.[30]

Industry's assertions are borne out by the only study on the use of reverse auctions for construction services. USACE spent a year studying the use of the procurement methodology and found that, "it offered not even marginal edge in savings over the sealed bid process for construction service projects" and that construction was too variable to be considered a commodity.[31] As a result, USACE no longer uses reverse auctions for construction contracts. However, even though USACE has the most construction contracting of any federal agency, not all federal agencies have followed USACE's example and construction contracts continue to be awarded using reverse auctions.[32] Specifically, they are being awarded as commercial item contracts, in direct contravention of Office of Management and Budget Guidance.[33]

In response to these issues, I introduced H.R. 2751, the Commonsense Construction Contracting Act of 2013 during the 113th Congress. The legislation exempted any contract for design and construction services that is deemed suitable for award to small business from being awarded using a reverse auction methodology. The Small Business Committee favorably reported the bill, and this Committee included an expanded version of the bill in the House version of the FY 15 NDAA. However, after H.R 2751 was introduced, additional improprieties in the use of reverse auctions came to light, specifically that they were being used in a manner that did not ensure adequate

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http://newsmanager.commpartners.com/agcleg/downloads/AGC%20Position%20on%20Reverse%20Auctions%20-%20FINAL.pdf (hereinafter AGC WHITE PAPER).

[28] AGC WHITE PAPER.

[29] Small businesses win most contracts awarded using reverse auctions; however, given that all of the awards are under the statutory amount reserved exclusively for small businesses, these awards should be exclusively to small companies. Likewise, pricing is frequently disclosed in contravention of FAR § 52.203-2.

[30] H.R. 2067, 109th Cong. (2005).

[31] USACE STUDY at 34-37.

[32] *See, e.g.*, Department of the Interior, *Solicitation P12PS25233* (Jun. 13, 2012), *available at* https://www.fbo.gov/?s=opportunity&mode=form&tab=core&id=b55a55a0cc7346ab722e4c4b011c4911&_cview=0 (supply and deliver flexible road base); VA, *Solicitation VA24413Q0363*, (Jan. 31, 2013), *available at* https://www.fbo.gov/?s=opportunity&mode=form&id=039ef8d115384d0cebef055c25934d07&tab=core&_cview=1 (testing or poser distribution system); VA, *Solicitation VA24312Q1952* (Jul. 30, 2012), *available at* https://www.fbo.gov/?s=opportunity&mode=form&id=8a576e312880690d317f3fc78314f401&tab=core&_cview=0 (complete overhaul of chiller).

[33] Memorandum From Angela Styles, Administrator, Office of Federal Procurement Policy, Applicability of FAR Part 12 to Construction Acquisitions (Jul. 3. 2003) *available at* http://www.whitehouse.gov/sites/default/files/omb/assets/omb/procurement/far/far_part12.pdf.

competition or savings.[34] Consequently, the version of the bill I introduced this Congress provides a more comprehensive reform. I will now discuss what convinced me of the need for greater reforms.

IV. Systemic Problems with the Use of Reverse Auctions

I will now turn to systemic challenges with reverse auctions regardless of the good or serviee being purchased.[35] The Subcommittee on Contracting and Workforce previously looked at the misuse of reverse auctions during a December 11, 2013 joint hearing with the House Veterans' Affairs Committee (HVAC) Subcommittee on Oversight and Investigations (O&I).[36] That hearing explored the finding of a Government Accountability Office (GAO) report issued December 9, 2013.[37] We revisited the issue on March 19, 2015, when Dan Gordon, a former OFPP Administrator testified about the need to take corrective action on reverse auctions.

Reverse auctions first gained popularity in the late 1990s, as Internet-based technologies allowed potential vendors to underbid each other in real time. Since then, they have grown to account for nearly one percent of federal prime contract dollars awarded each fiscal year.[38] While the Office of Federal Procurement Policy (OFPP) has been promising guidance on the use of reverse auction procurements since 2000, to date no guidance or regulations have been forthcoming, meaning that over $828 million in procurements are awarded using a methodology never mentioned in the Federal Acquisition Regulation (FAR) or in statute.[39] Instead, OFPP and the Office of Management and Budget (OMB) have encouraged the use of reverse auctions without offering guidance on how to best use this methodology.[40] OFPP most recently agreed to issue guidance sixteen months ago, in response to the GAO report, but has not yet even opened a FAR case.[41]

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[34] GAO, *GUIDANCE IS NEEDED TO MAXIMIZE COMPETITION AND ACHIEVE COST SAVINGS*, GAO-14-108, (2013); *Hearing Before the Subcomm. on Contracting and Workforce, House Comm., and Subcomm. on Oversight and Investigations, Comm. on Veterans' Affairs,* 113th Cong. (2013).

[35] Memorandum from Committee Staff to the Small Business Committee re: *Contracting and the Industrial Base; Hearing Before the Small Business Committee*, 114th Cong. (Feb. 12, 2015) (hereinafter "*Contracting and the Industrial Base I* Memorandum"), *available at* http://smallbusiness.house.gov/uploadedfiles/2-12-2015_hearing_memo.pdf (*last visited* Feb. 27, 2015).

[36] *Contracting Away Accountability – Reverse Auctions in Federal Agency Acquisitions; Hearing Before the House Veterans' Affairs Committee Subcommittee on Oversight and Investigations and the House Small Business Committee Subcommittee on Contracting and the Workforce*, 113th Cong. (Dec. 5, 2013).

[37] GAO, REVERSE AUCTIONS, GUIDANCE IS NEEDED TO MAXIMIZE COMPETITION AND ACHIEVE COST SAVINGS (hereinafter GAO REVERSE AUCTIONS) GAO-14-108 (2013).

[38] GAO, REVERSE AUCTIONS at 2.

[39] Colleen O'Hara, "Reverse Auctions Move Forward," FEDERAL COMPUTER WEEK (Aug. 3, 2000) *available at* http://fcw.com/articles/2000/08/03/reverse-auctions-move-forward.aspx (*last visited* Feb. 27, 2015), quoting the OFPP Administrator as planning to "issue guidance to sharpen up the Federal Acquisition Regulation regarding reverse auctions."

[40] *See* Robert Burton, Acting OFPP Administrator, "Utilization of Commercially Available Online Procurement Services" (May 12, 2004), *available at* http://www.whitehouse.gov/sites/default/files/omb/assets/omb/procurement/publications/online_procurement_051204.pdf (*last visited* Feb. 27, 2015); Paul Denett, OFPP Administrator, "Effective Practices for Enhancing Competition" (Jul. 18, 2008), *available at*

Based on my review of the issue, I believe there are three issues that need to be addressed. First, how do we maintain adequate competition in reverse auctions. Second, what is the appropriate use of third party service providers. Finally, what types of goods and services should be purchased using reverse auctions.

a. Competition

In FY 2012, the last year for which federal data is available, federal agencies awarded $828 million in contracts using reverse auctions.[42] However, FedBid reports that it conducted $425 million in transactions for the Department of Defense (DoD) in FY 2013[43] Likewise, another $1.1 billion in reverse auctions were conducted by FedBid for civilian agencies in FY 2013.[44] While this does not account for reverse auctions conducted by the General Services Administration (GSA) or by other third party providers, it indicates that the amount of reverse auctions dollars nearly doubled in one year to over $1.525 billion. As such, it is clear that reverse auctions are increasingly important to how the government buys, and from whom those purchases are made.

While competition itself would reasonably be expected to reduce the price paid by the government – this is the foundation of our procurement system – competition is frequently absent or not meaningful in many reverse auctions. In FY 2012, over one-third of reverse auctions conducted for federal agencies had no interactive bidding, defined by GAO as "where vendors engage in multiple rounds of bidding against each other to drive prices lower."[45] In 27 percent of auctions, there was only one bidder and that bidder received the award.[46] In contrast, the DoD policy in place at that time required that before issuing a contract when only a single bid was received, "[w]hen a solicitation is open for less than 30 days and only a single bid is received, the contracting officer should cancel and re-advertise the solicitation for a minimum of 30 additional days unless a waiver is obtained from the head of the contracting activity. When a solicitation is

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http://www.whitehouse.gov/sites/default/files/omb/procurement/memo/enhancing_competition_071808.pdf (*last visited* Feb. 27, 2015); Jeffrey Zients, Deputy Director, OMB, "The Accountable Government Initiative" (Sept. 14, 2010) *available at* http://www.whitehouse.gov/sites/default/files/omb/memoranda/2010/AccountableGovernmentInitiative_09142010.pdf (*last visited* Feb. 27, 2015).

[41] GAO, REVERSE AUCTIONS at 30.

[42] GAO, REVERSE AUCTIONS at 6. GAO reported that 99% were conducted by the same contractor, FedBid. FedBid is a Virginia company founded by Ali Saadat in 1999. In 2012, it secured "significant investment from Revolution Growth, a venture capital fund created by Steve Case, Ted Leonsis and Donn Davis." http://www.fedbid.com/about/directors/ (*last visited* Feb. 27, 2015). Messrs. Case and Leonsis were the cofounders of AOL, and Mr. Leonsis is the owner of the Washington Wizards and Capitals. FedBid's Board of Directors includes General George Casey, Jr., former Army Chief of Staff, Mr. Leonsis, and Susan Bostrom, former CMO of Cisco. *Id.* Their list of advisors includes former political appointees of Presidents Clinton and George W. Bush, generals, admirals, and Members of Congress. http://www.fedbid.com/about/advisors/ (*last visited* Feb. 27, 2015). The current CEO is a former OFPP Administrator.

[43] http://www.fedbid.com/buyers/department-of-defense/ (*last visited* Feb. 27, 2015). It states that 85 percent of these awards are to small businesses. *Id.*

[44] http://www.fedbid.com/buyers/federal-civilian (*last visited* Feb. 27, 2015).

[45] GAO, REVERSE AUCTIONS at 16.

[46] *Id.* at 16-17.

open for at least 30 days or has been re-advertised and only a single bid is received, the contracting officer should conduct negotiations with the offeror, unless a waiver is obtained by the head of the contracting activity."[47] No such competitive procedures were followed.

However, additional problems were found with the competition of these awards. In eight percent of awards there were multiple bidders but only one round of offers – essentially, this was a sealed bid procurement.[48] However, agencies paid $3.9 million in fees for these procurement services.[49] Perhaps even more problematic is the fact that for over 3,600 reverse auctions, $1.7 million in fees was paid even though only one offer was received from one bidder – thus, in addition to lacking competition for the actual award, the government paid extra to award a sole source contract.

Approximately 80 percent of the dollars awarded using reverse auctions were under $150,000, and 86 percent of the contracts were awarded to small businesses.[50] According to the Small Business Act, all contracts between $3,000 and $150,000 are exclusively reserved for small businesses, provided that there are two or more small businesses able to provide the good or service at a fair and reasonable price.[51] Further, in cases where the contract exceeds $150,000, if two or more small businesses are able to compete for the contract, it is to be set aside for small business. Therefore, the lack of adequate competition on these contracts was most likely to harm small businesses. Furthermore, given that items purchased using reverse auctions are supposed to be commercially available and not complex, one question is, why are all of these procurements not reserved for small businesses? Indeed, the Chief Counsel for Advocacy of the Small Business Administration (SBA Advocacy) sent a letter to OFPP stating that "some Federal agencies using reverse auctions may not be complying with the simplified acquisition threshold requirements for contracts to be reserved for small businesses."[52] Thus, the inappropriate use of reverse auctions is harming the small business industrial base.

b. The Use of Third Party Providers

The inappropriate use of third party providers may also pose a challenge to the industrial base. Before proceeding with this discussion, it is important to note that it is the federal government, and ultimately the contracting officer, that is responsible for the conduct of a third party reverse auction provider under its direction. As the largest third party provider of reverse auctions, FedBid has come under scrutiny as of late. However, while allegations have been made regarding

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[47] Memorandum from Shay Assad, Director Defense Procurement and Acquisition Policy "Improving Competition in Defense Procurements" (2011) *available at* http://www.acq.osd.mil/dpap/policy/policyvault/USA002080-11-DPAP.pdf (*last visited* Feb. 27, 2015).
[48] GAO, REVERSE AUCTIONS at 16-17.
[49] *Id.*
[50] *Contracting and the Industrial Base* Memorandum
[51] Section 15(j)(1).
[52] Winslow Sargeant, Impact of Reverse Auctions on Small Businesses (2012), *available at* http://www.sba.gov/advocacy/816/42071 (*last visited* Feb. 27, 2015).

FedBid's conduct, the actions the company took in the award of contracts were permitted by the contracting agency, so this memorandum will focus on what the federal contracting agency permits.

Because the federal procurement system is complex and involves obligating the federal government, under the Federal Acquisition Regulation (FAR), an action should be undertaken only by a federal employee if it could "[b]ind the United States to take or not to take some action by contract," "[d]etermine, protect, and advance United States . . . interests by contract management," or "[e]xert ultimate control over the acquisition, use, or disposition" of property or funds.[53] While third party providers do not award contracts, the third party is in a position of exercising functions closely associated with inherently governmental activities. For example, according to discussions with FedBid, any questions a vendor may wish to pose to a contracting officer must be submitted through FedBid. Likewise, FedBid states that it keeps independent past performance records on vendors, including information regarding their creditworthiness, which it shares with the government but does not share with the vendors.[54] FedBid also reports that agencies allow it to bar a vendor from receiving an award if FedBid and the vendor are in a dispute over fees the vendor allegedly owes to FedBid.[55] Finally, FedBid states that agencies permit it to tell an offeror that its offer is lagging in order to induce a lower bid, when in fact there is no lower bid.[56]

Each of these statements poses a challenge to the industrial base permitted by the contracting agency. Requiring that vendors speak to contractors rather than the government means that the information they receive regarding the government's needs is filtered, and that the contracting officer may not learn about the needs of the vendor community. Keeping separate performance and financial responsibility files excludes companies from successfully competing for offers. Barring a company over a private dispute again limits competition on merely the assertion of a contractor. Misleading a vendor over pricing builds distrust in the vendor community and causes businesses to opt out of the federal marketplace. As the testimony before the Subcommittee demonstrated, the fact that the actual award is signed by a contracting officer does not always mitigate the private sector intrusion into all of the inherently governmental aspects of the process. Rather, GAO found only within the last two weeks cases where FedBid's action violated federal procurement laws.

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[53] FAR § 2.101; *see also* FAR § 7.5.
[54] FAR § 15.306. Further, if a contracting officer determines that a small business's past performance make it unsuitable for award, it should refer that business to the Small Business Administration for review. FAR § 19.6.
[55] Committee staff conversations with Joe Jordan, CEO of Fed Bid, on November 6, 2014. The Committee has since received documentation of this statement from a third party whose bid was not allowed.
[56] Committee staff conversations with Joe Jordan, CEO of Fed Bid, on November 6, 2014.

c. Appropriate Goods and Services

While my interest in reverse auctions began with construction services, I remain convinced that reverse auctions are a good way to save the government money when they are used appropriately. GAO and witnesses all agreed that they can be an efficient way to buy commodities when the only factor we care about is price. However, the more complex the service, the greater the risk of harm. Parts of DoD are currently using reverse auctions to procure body armor, and while some may consider this protective gear a mere commodity, I think we would all agree that factors other than price should be considered when peoples lives are at stake. I think Dan Gordon said it best when he stated that if "you want to do a reverse auction to buy surgery services, make sure you don't particularly like the patient."[57]

d. H.R. 1444

I believe that H.R. 1444, the Commonsense Contracting Act of 2015, as incorporated into H.R. 1481 the Small Contractors Increase Competition Act of 2015, and successfully marked up by the Small Buisenss Committee, offers a solution to the problems I've outlined. First, it requires that reverse auctions be awarded competitively, and that trained contracting officers be responsible for the decisions made during the reverse auction. It also imposes some fair play rules – the government or its agent can't lie to bidders about the rankings of their offers, or use third party providers to get around statutory requirements on responsibility and past performance. It also keeps disputes between the third party providers and offerors out of the decision making process. Finally, this language restricts the use of reverse auctions on small business contracts to contracts for goods and services, other than construction service contracts, when the basis of award is only price and the goods or services are not purchased to protect Federal employees, members of the Armed Forces, or civilians from bodily harm.

V. Conclusion

The languge in H.R 1444, H.R. 1481, and H.R. 838 has been supported by the National Defense Industry Association, the Associated General Contractors, the American Institute of Architects, the National Small Business Association, the American Council of Engineering Companies, and many others. It represents a common sense approach to issues undermining federal contracting. I ask that you include this language in the FY 2016 NDAA. Thank you for your time and support. I would be happy to answer any questions.

[57] http://www.washingtonpost.com/business/economy/suspension-lifted-fedbid-still-comes-under-fire/2015/03/19/14ddc510-ce47-11e4-a2a7-9517a3a70506_story.html

Testimony Before the House Armed Services Committee
Congressman David B. McKinley, P.E.
April 13, 2015

Thank you, Chairman Thornberry for the opportunity to speak before the House Armed Services Committee today. As your Committee begins the process of crafting the critically important annual National Defense Authorization Act ('NDAA'), I would like to bring to your attention the crisis facing our nation's solid rocket motor ('SRM') industrial base. This issue affects not only our national security, but also American manufacturers and the continued supply of the nation's premier air-to-air missiles.

As I have previously informed the Committee, limited new tactical missile programs, coupled with few planned upgrades to existing tactical missile programs, have placed the domestic industrial base of SRMs at risk. The situation has been made worse by outsourcing rocket motor production to foreign suppliers. My simple ask for you today is that the Committee include language in the NDAA to ensure that every US military tactical missile program that uses solid propellant as the primary propulsion system include at least one (1) American domestic rocket motor supplier. This change will not only help safeguard a vital industrial capability, but help guarantee competition which ultimately delivers much needed technical innovation and cost efficiencies.

Since the mid-1980s, the number of US domestic producers of tactical SRMs has declined from five (5) suppliers to two (2). Two main factors have contributed to this decline: (1) a significant reduction in the number of new tactical missile programs developed and produced and (2) the volatility from year-to-year of planned missile purchases, which causes financial uncertainty and inefficiencies in the marketplace. Existence of a struggling, at-risk SRM industrial base has been highlighted in numerous Department of Defense and Congressional Committee reports, which have been provided for your staff.

Aggravating the industrial base situation are instances in which missile programs have used foreign SRM suppliers. For example, the US military's primary air-to-air missile, AMRAAM, relies solely on a Norwegian supplier despite desires of the Air Force to have two suppliers. Reliance on a single, foreign supplier is an inherent national security issue and is a considerable risk in terms of supply chain vulnerability and cost containment. Further, not sustaining an American SRM industrial base now will only impede the future development of missile systems. The Defense Department's own analysis estimates that new programs could be delayed by 5 to 10 years or more should we lose domestic SRM production capability and the US will need to reconstitute its propulsion design and engineering capabilities. Simply put, SRM design and manufacturing is a highly technical and specific field, and if we lose American know-how and capabilities, it will take years of time and money to get it back.

As this Committee knows well, a constrained defense budget limits the number of weapon programs that can be started or upgraded. This is especially true for tactical missiles where SRM designers and manufacturers have undergone dramatic "right-sizing" to match reduced market demands. Nevertheless, the SRM industry remains at risk and thus any program delays or outsourcing of work has an amplified impact on an industry which relies on several key single-source sub-tier suppliers. Increased support of a shrinking SRM industrial base is warranted given the limited number of new and planned upgrade missile programs that are identified in the out-year budget. A Department of Defense policy that ensures that at least one (1)US SRM supplier be required for every US missile program that is designed, developed and used by our military will encourage competition, drive down costs and reduce a glaring national security risk.

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Member's Day Hearing: April 14, 2015

Members of the Armed Services Committee, thank you for your time and for this opportunity to speak regarding the FY2016 National Defense Authorization Act.

This year I introduced H.R. 1337, legislation to waive the time limitations for the award of the Distinguished-Service Cross to Edward Grady Halcomb for acts of extraordinary heroism during the Korean War. I want to offer my great thanks to my friend Rep. Rich Nugent, and the rest of the Members of this Committee, for including this legislation in the base text of the FY2016 NDAA.

The Distinguished Service Cross is the second highest military decoration that can be awarded to a member of the United States Army and for years, my staff has worked with longtime Mulberry, Florida resident Grady Halcomb, who proudly served during the Korean War, to be awarded a Distinguished Service Cross.

Recently, I received confirmation from the Secretary of the Army, John McHugh, who personally affirmed that Grady Halcomb should be awarded with the Distinguished Service Cross for his valor in the service. However, there is a time limitation in U.S. Code currently preventing this award from being presented to Mr. Halcomb. To address this, I introduced legislation to ensure this American hero will receive the award he earned in service to his country and in his efforts to save the lives of fellow service members so many years ago.

On July 27, 1950 Private Halcomb fought in the battle of Anui as a member of Company B, 1st Battalion, and 29th Infantry Regiment. This battle resulted in the worst single unit American fatality rate of the Korean War, with only 24 of 235 (10.2%) soldiers surviving. Enemy forces captured Private Halcomb after he was wounded and most of his unit was killed.

As a POW:

- After capture, Grady Halcomb endured a 150 mile march from Anui to Seoul with little food or water.
- In the Seoul prison, the private assumed—via competence and inexplicable stamina—the role of chief medic.
- At age 19, Grady Halcomb supervised nine other medics, and cared for up to 376 American prisoners.
- At great personal risk, Grady Halcomb exposed himself daily to disease and infections, while depleting his own strength by virtually never leaving his patients' side for over a two month period in garrison, or on the 120 mile death march from Seoul to Pyongyang.
- When forced to leave Seoul to begin the death march, he rallied the feeble soldiers and escorted them until they caught up with the main POW column.

- The private physically braced up fellow prisoners who were unable to walk due to malnutrition and disease, despite suffering from the same medical maladies.
- Lastly, then-Private Halcomb successfully helped plan and execute a daring escape with four other prisoners in Pyongyang despite the presence of overwhelming enemy forces.

Awarding the Distinguished Service Cross to Edward Grady Halcomb is a long overdue honor for a man who risked his own health and safety as a POW during his times in Seoul, on the death march, and at the death camp in Pyongyang to care for and defend his fellow prisoners. I want to thank Secretary McHugh and his staff at the Pentagon and all of you here on the Armed Services Committee for working with my staff to include this important and needed provision in this year's NDAA.

Thank you and I yield back the balance of my time.

Member Testimony Submission
Congressman Keith Rothfus (PA-12)
House Armed Services Committee
National Defense Authorization Act for Fiscal Year 2016
Tuesday, April 14, 2015

Chairman Thornberry, Ranking Member Smith, and Members of the Committee:

Thank you for holding this hearing today and for receiving my testimony on the National Defense Authorization Act (NDAA) for Fiscal Year 2016. To be sure, with increased budgetary pressure, your work in crafting this important legislation will be filled with difficult choices about which programs to authorize and where to cut.

It would have been my preference that Congress would have addressed this issue directly during the budget process and taken steps to responsibly fund our national defense, on-budget and with offsetting cuts. Unfortunately, that did not come to pass, and we are left with the present task of trying to fulfill our greatest responsibility while hampered by unnecessary fiscal constraints.

It is a result of these constraints that our military has been forced to implement policies like the Army's Aviation Restructuring Initiative (ARI). As you know, this policy will result in the Army eliminating all single-engine rotary wing aircraft (for example, OH-58D Kiowa Warrior helicopters) from its inventory and transferring all National Guard AH-64 Apaches to the active component. Army officials have stated that this restructuring is necessary to generate savings and make the remaining aviation fleet more affordable. I have long opposed this plan, and for the second year in a row ask, Mr. Chairman, savings at what cost?

Since 9/11, the National Guard has repeatedly risen to the occasion. They have answered the call and fought bravely in Iraq and Afghanistan. At the height of these wars, nearly fifty percent of the Army's total force was a mix of reservists and members of the National Guard. The Pennsylvania National Guard alone contributed more than 42,000 individual deployments. They have fought side-by-side with the active component, all while continuing to achieve their important mission here at home. As the National Governors Association put it best, the modern National Guard has become "a highly experienced and capable combat force and an essential State partner in responding to domestic disasters and emergencies."

ARI will have devastating impacts on all that the National Guard has achieved. By stripping the National Guard of its Apache helicopters, the Army is ensuring that the National Guard will be less combat-ready and less able to provide operational depth. It will also deprive our nation of an operational reserve for these aircraft, which is essential to the retention and management of talented aircrews. This represents a fundamental shift in the nature and role of the National Guard. It runs counter to the wisdom and preference of many members of Congress and their constituents.

This issue is important in Pennsylvania and to the 1-104th Attack Reconnaissance Battalion (ARB) in Johnstown. These highly-trained airmen and crew played an invaluable aerial support role in Afghanistan where they flew their Apache helicopters and fought alongside the active component. The Army now proposes to replace these Apaches with a smaller number of Blackhawks. This reduction will deprive the National Guard of both highly-trained personnel and equipment. It will result in the National Guard being less effective, less combat-capable, and less able to heed the call to defend this nation, both at home and abroad. Major General Wesley Craig, former-Adjutant General for the Pennsylvania National Guard, summarized this well when he stated that this "does not make sense for our community, commonwealth, or country."

I offered similar criticism of ARI last year and joined my colleagues in urging this Committee to create the National Commission on the Future of the Army. I also advocated that there should be no transfers or divestment of any Army aircraft, including Apaches, until after the Commission has had sufficient opportunity to examine ARI. I applauded the Committee for including those important provisions in the FY15 bill. But I was disappointed to see that, at the insistence of the Senate, the legislation also contained a glaring exception that allows the Army to transfer up to 48 Apaches beginning on October 1, 2015, prior to the Commission releasing its findings and recommendations.

When this legislation passed, many justifiably understood that the National Guard could comply by transferring a small number of Apaches from many different ARBs. The Army disagreed with that approach, however, and demanded that the National Guard inactivate two ARBs in their entirety. That is why, on April 1st, National Guard Bureau (NGB) announced that the 1-104th and 1-135th ARBs, located in Johnstown, Pennsylvania, and Whiteman Air Force Base, in Missouri, would be shut down. To me, it is unconscionable that these decisions are being made before the Commission has even held its first meeting.

The Commission was established to offer a deliberate approach to addressing force structure issues like ARI. So how does it make any sense to permit the Army to transfer these Apaches before the Commission has done its work? The answer is simple: It doesn't, and we need to put a stop to this before it is too late. Even NGB Chief General Frank Grass admits that once these transfers begin, it will be all but impossible to reverse them.

For that reason, I respectfully request that the Committee include a simple provision in this year's NDAA that prohibits the transfer of any Apaches until the end of Fiscal Year 2016. This will provide sufficient time for the Commission to release its report, for the Army and the National Guard to respond, and for Congress to make a reasoned and well-informed decision.

Again, I recognize that this Committee will be forced to make many difficult decisions over the next month. But this isn't one of them. Providing a temporary freeze on the transfer of Apaches just makes sense and will ensure that irreparable harm is not done to our National Guard without due deliberation.

Thank you for the opportunity to address you this morning, and I am happy to address any questions that you may have.

Testimony before HASC regarding F/A-18 Super Hornets

Tuesday, April 14 @ 10:00am

Representative Ann Wagner (MO-2)

Mr. Chairman and Ranking Member, and Members of the Committee, I want to first extend my appreciation for the work that you do. As the proud mother of a son serving in the United States Army, and representing thousands of constituents that wear the uniform, I know firsthand the importance of this Committee's work for our national security as you begin to debate our defense priorities for the coming fiscal year. Thank you for the opportunity to talk about a key defense priority for the United States Navy – and our nation – the F/A-18 Super Hornet.

The past two years I've become very familiar with the Navy's tactical aviation capabilities. Last year, this Committee responded to the Navy's requirement for more electronic attack capabilities by providing 5 EA-18G Growlers in the Fiscal Year 2015 National Defense Authorization Act. Congress then added 10 additional Growlers on top of that during the appropriations process, and those aircraft will provide a warfighting capability that no adversary can match. Growlers will keep our Navy equipped to overcome enemies today and in the future in all threat environments. For that, I would like to say thank you.

Today I am here to support adding F/A-18 Super Hornet aircraft to the Fiscal Year 2016 NDAA. As you know, the Navy submitted an "Unfunded Requirement" for 12 F/A-18 "F model" aircraft. In testimony, the Chief of Naval Operations (CNO), Admiral Jonathan Greenert, stated that the Navy has a "Super Hornet shortfall" of at least two or three squadrons – the equivalent of 24-36 aircraft. An aging fleet of legacy aircraft, the delayed operational deployment of the F-35 program, and the higher than anticipated utilization of Super Hornets in combat are contributing to this shortfall. To this last point, the Super Hornet is truly the workhorse of naval combat operations against the Islamic State of Iraq and the Levant (ISIL). By some estimates, the Super Hornets today are flying four times the anticipated rate. It is an absolutely critical, in-demand weapon against our enemies. To exacerbate the shortfall challenge, the Navy has lost 15 Super Hornets and Hornets over the past 5 years to battle or training losses – aircraft that have not been replaced by the Navy or Congress.

The strike fighter shortfall identified in the Unfunded Requirement request is not a new issue to the Navy. We all wish that the President's Budget request included additional F/A-18 Super Hornets, and we all expect the Navy to address the total extent of the shortfall in subsequent budgets. However, without aircraft in Fiscal Year 2016, the F/A-18 program faces a line closure decision. The F/A-18 manufacturing line is the only aircraft production with the ability to build operational strike fighters for the Navy today and AEA aircraft for the entire Department of Defense. Without it, the Navy couldn't address its shortfall, nor could it add Growlers in the future. Recall that there is likely a larger, joint requirement for more EA-18G Growlers that is pending further analysis. I would not be in front of you today if funding additional aircraft were not so vital to our warfighting capabilities. Adding aircraft and keeping the F/A-18 line alive is the right thing to do to keep our military personnel safe and to keep our country and allies safe.

I have provided a copy of a House letter signed by myself and my colleagues requesting additional aircraft. These are Members who have stood by the Committee to support defense authorizations in years past. I have also added a copy of the "Unfunded Requirement" highlighting the Navy's request for 12 aircraft. I ask that both of these documents be submitted as part of my written testimony.

In closing, I urge you add 12 F/A-18 aircraft to ensure the Navy can protect our nation now and decades to come. I look forward to working with this Committee and supporting final NDAA legislation as it moves through the House of Representatives. I stand at your service and thank you for yours.

Testimony of Representative Mike Bost
Member of Congress
12th Congressional District of Illinois
Before the House Committee on Armed Services
April 14, 2015

Chairman Thornberry / Ranking Member Smith, thank you for the opportunity to address you on a matter of great importance to the continued warfighting ability of the United States Navy, and the preservation of an important component of our nation's defense industrial base.

The current state of overseas turmoil makes it more imperative than ever that Congress acts to ensure that our military has the platforms and capabilities it needs to meet multiplying and diverse threats to the national security. Specifically, Mr. Chairman, I am addressing the critical need of the United States Navy for additional strike fighters.

As you know, the F/A-18 Super Hornets are executing critical strike missions against ISIS and other al-Qaeda affiliated terrorist entities. The rate at which these aircraft are being used is four times their original anticipated rate of use. As a consequence, strike fighters are rapidly approaching the end of their useful lives.

I would also like to add that the newer EA-18G Growlers are providing unique and essential electronic sensing and attack capabilities to United States and coalition forces.

In recent testimony, Chief of Naval Operations Admiral Greenert stated that the Navy is experiencing a serious shortfall of between 24 to 36 Super Hornet Aircraft. The primary causes of this shortfall are the above mentioned rate of utilization and issues with the speed of repairs to Legacy Hornets at the depots.

The Navy's inclusion of 12 F/A-18 aircraft in their "Unfunded Priorities" list reflects the service's realization that without additional strike fighters the Navy may be faced with a shortage of operation-ready aircraft that will negatively impact ongoing and future operations.

The F/A-18 is currently the only operational strike fighter line in the United States, and is a significant national security asset we should act to protect.

Unfortunately, the aircraft's production line is at a critical juncture. Without Congressional action, it may close.

The inclusion of 12 additional strike fighters in the Defense Authorization Act will enhanced the national security value provided by the existence of the St. Louis area defense industrial base.

The F/A-18 Super Hornet and EA-18G Growler program line represent more than 60,000 U.S. jobs with 800 supplier partners throughout 44 states.

In closing, prudence requires we keep and maintain the F/A-18 Super Hornet and EA-18G Growler production lines. These aircraft are vital to maintaining the capabilities of the Navy. I strongly urge the Committee to authorize the Navy's request for an additional 12 F/A-18 aircraft for the coming fiscal year.

Once again, I thank the Committee for the opportunity to address you on this matter. As a former United States Marine, I look forward to working with you to ensure our warfighters have the equipment and capabilities they need to protect our nation.

Chairman Carlos Curbelo
Subcommittee on Agriculture, Energy and Trade
Committee on Small Business
Before the Committee on Armed Services
Statement for April 14, 2015

Good morning, Chairman Thornberry, Ranking Member Smith, and Members of the Committee. I appreciate the opportunity to testify before you on the National Defense Authorization Act for Fiscal Year 2016 (FY16 NDAA). Like my colleagues, I'd like to thank the Chairman and Ranking Member for their leadership on procurement reform, and suggest an additional area that requires the Committee's attention.

Within Florida's 26th Congressional District, there are 649 companies registered as federal contractors, including 448 small businesses. Those small businesses won over $61 million in federal prime contracts last year out of the $440 billion spent on federal contracts. That is why I believe that those 448 companies, and the 289,000 small contractors nationwide could be doing more if we only took subcontracting more seriously.

Subcontracting is incredibly important for small businesses. Any large business receiving a contract for more than $650,000 must tell the federal government how it will use small businesses as subcontractors. This ensures that we have a healthy industrial base at all levels. Additionally, since about 80 percent of federal contracts are awarded to large businesses, this is where the money is: in FY 2013, small businesses received $86.7 billion in subcontracts, which is just about $5 billion less than they received in prime contracts.

As part of the FY13 NDAA, this Committee enacted legislation to hold agency officials accountable for small business utilization. Specifically, when agencies were considering whether senior agency executives deserved bonuses, it required that the agencies consider the whether the agency met its contracting goals, and the role of that executive meeting those goals. Even though the importance of subcontracting was again acknowledged by this Committee as part of the FY14 NDAA, when it included language drafted by Congressman Graves to count lower tier subcontractors towards subcontracting goals, agencies are disregarding Congressional intent.

When agencies implemented the FY13 language on goaling, they took the term "goals" to mean prime contract goals, ignoring the role of subcontracting. As a consequence, prime contracting dollars have increased, but the percentage of subcontract dollars awarded to small businesses has been falling, and is down 2.5% since 2010. Likewise, agencies have not even started implementing the FY14 language. This means fewer small suppliers, manufacturers, and innovators. Subcontracting is an important entry point for new federal contractors, so if we have fewer subcontractors today, we will have fewer prime contractors tomorrow.

For these reasons, I introduced H.R. 1386, the Small Entrepreneur Subcontracting Opportunities Act of 2015' or the `SESO Act' with Mr. Chabot, Mr. Gibson and Mr. Bost. SESO requires that agencies look at subcontracting accomplishments as well as prime contracting accomplishments

when evaluating performance of senior executives. SESO was included in H.R. 1481, the Small Contractors Improve Competition Act of 2015, and passed Committee on March 25 with bipartisan support.

In Spanish, the word "seso" means brains, and I hope you will agree with me that including the SESO Act and the other provisions in H.R. 1481 in the FY16 NDAA is the smart thing to do. Thank you again for your time, and I'd be happy to answer any questions.

Rep. Cresent Hardy (NV-04) Testimony for HASC Member Day

Good morning, Chairman Thornberry, Ranking Member Smith, and Members of the Committee. I appreciate the opportunity to testify before you on the National Defense Authorization Act for Fiscal Year 2017.

I want to first thank you for keeping small businesses and procurement reform top of mind when you were crafting last year's NDAA. The small business community appreciates your efforts.

To continue the conversation, I wanted to speak briefly concerning a small business contracting initiative that often gets less attention than it deserves.

Many times in contracting all of the efforts are concentrated on whether or not fair competition is being observed. While this is absolutely paramount in our society, the person that wins the contract is often immediately thrown into a firestorm of compliance issues and burdens.

Therefore while we observe pre-contract interactions, we also need to enhance post-award compliance.
With that said, I have introduced H.R. 4331, the Small Business Easy Contract Compliance Enhancement and List Act of 2016 to rectify this issue.

This straightforward legislation requires small business advocates at SBA along with other agencies that participate in Mentor-Protege programs to offer a list of resources to contract awardees.

To help reduce compliance burdens Chairman Chabot included post-award compliance language in his larger bill that offers important reforms for contractors and subcontractors.
I encourage you to take a serious look at Chairman Chabot's large contracting bill H.R. 4341, the Defending America's Small Contractors Act of 2016. These reforms will truly impact small businesses, one of our countries truest economic drivers.

I would now like to quickly draw your attention to an ongoing issue in my district that has national security implications.

My district in Nevada is the proud home of the Nevada Test and Training Range, which is the largest contiguous air and ground space available for military training operations in the free world.

It consists of 2.9 million acres of public lands underneath approximately 12,000 square nautical miles of Restricted airspace and Military Operations Areas.

The Air Force uses the NTTR to perform advanced exercises and tactics development in a multidimensional training environment unlike any other.

Yet despite the critical importance of the NTTR to our national security, multiple layers of duplicative regulations are preventing the Air Force from meeting defense test and training objectives do to the lack of ready access to withdrawn land.

This inability to fully utilize withdrawn lands also denies the full use of the Restricted airspace overlying the area, further restricting operational flexibility.

Mr. Chairman, the Air Force has been conducting bombing and gunnery practice, tactics development, and electronics testing and training on these lands since 1940, a full 34 years before the Fish and Wildlife Service nominated the area for wilderness designation.

And it was a flawed wilderness designation to begin with that refused to account for existing military impacts on the land.

What this all boils down to is that the military should not be saddled with multiple layers of duplicative regulations that hinder its ability to adequately train for missions that will keep the American people safe.

While the Department of Defense and the Department of Interior have inherently different missions, there is no reason why they cannot be better partners to arrive at commonsense solutions for the land they co-manage.

Mr. Chairman, my home State of Nevada is more than 85 percent federally controlled. While many Nevadans may have their disagreements with our federal land management agencies, we are proud to welcome the military personnel who call our state home.

We feel a sense of duty and patriotism to have these vital training activities taking place in Nevada, and we would like nothing more than to allow our servicemen and women the freedom to train for their missions.

Again, I'd like to thank the Chairman and Ranking Member for the opportunity to speak before the committee this morning.

(Hurd TX-23)

Chairman Thornberry, Ranking Member Smith, I want to thank you and this Committee for the opportunity to share some of the national security priorities I hold for the upcoming year on behalf of those serving and working in the Twenty Third Congressional District of Texas and around the world.

Having spent nearly a decade serving as an undercover officer in the CIA, I've seen the threats and challenges we face around the world first hand. This experience taught me that it is vital we have a foreign policy that is based on clear military and economic goals and a sound strategy for achieving them.

In order to achieve those goals we must ensure that our brave men and women have the tools they need to take the fight to the enemy around the globe, win, and return home safely. As threats around the world continue to increase, now is simply not the time to limit our ability to respond. Maintaining our place as the world's leader requires military strength, diplomacy, and a willingness to stick to our guns.

Today, I would like to discuss a number of issues: namely, the challenges that we must face along with our allies and partners; the importance of

ensuring accountability, and the value of training and preparation for the future.

As this committee considers an Authorization for Use of Military Force against ISIS, I believe that we must continue to focus our efforts on encouraging our Arab allies in the region to directly engage this barbaric threat. Meanwhile, the U.S. focus should be on providing support not only militarily, but also through actionable intelligence and leadership. As my good friend Ambassador Ryan Crocker has noted, sometimes it is just as important to have pumps and wingtips on the ground, as it is boots.

We cannot just look at the current threats, but as we rapidly enter an age where micro actors can have a macro impact it is critical we look toward the future. Not only does this mean developing new weapons systems, but also strategies and tactics that focus on realms beyond the physical battlefield. As the importance of defensive and offensive cyber operations grow, we also need to modernize the way in which we procure information technology. I'm thrilled that this committee has made acquisition reform a priority and I look forward to working with my colleagues to ensure meaningful improvements to Information Technology procurement are part of any final legislation.

(Hurd TX-23)

Texas is fortunate to be home to over 1.5 million proud veterans, and I am lucky to represent a District that has a strong military presence given its proximity to Joint Base San Antonio, Camp Bullis, Laughlin Air Force Base, and Fort Bliss. Having recently visited many of these installations I am pleased to report on their fine work.

The men and women at these installations have matchless capabilities and unique missions, across intelligence, cyber, maneuver, and training, safeguarding future dominance across the battlefield. Continuing to work with each installation to ensure their priorities are met when it comes to equipment, facilities, and training is a top priority for me particularly as the nation transitions from a focus on counter insurgency to more traditional operations

Laughlin Air Force Base is a perfect example of where DoD's focus has strayed over the past decade. This base is responsible for training more pilots than any other location in the country, yet when it rains *more than one inch* the entire flight line is flooded and operations must cease. Not only does this affect long-term readiness, it has also cost taxpayers far more in maintenance than simply fixing the issue permanently would have. It is ludicrous that pilots who operate in the world's premiere Air Force are waiting around on money to be allocated for such a project. I earnestly hope that as we work through the authorization and

appropriations process my colleagues will seek to address these deficiencies at installations across the nation.

Finally, I would like to take a moment to recognize the enormous sacrifice our service members and their families have made over the past decade. Increased operational tempos, new types of warfare, and increasingly complex battlefield injuries have been borne by a minority of this country so that the rest of us can sleep safely at night. As their elected representatives it is our responsibility to ensure their sacrifices have not been in vain.

Thanks again to the Committee for the opportunity to speak today and for your commitment to our nation's warfighters and their families.

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Congress of the United States
House of Representatives
Washington, DC 20515–3224

April 13, 2015

The Honorable Mac Thornberry
Chairman
House Armed Services Committee
2208 Rayburn House Office Building
Washington, D.C. 20515

The Honorable Adam Smith
Ranking Member
House Armed Services Committee
2264 Rayburn House Office Building
Washington, D.C. 20515

Statement for the Record regarding the National Defense Authorization Act of 2016

Chairman Thornberry, Ranking Member Smith, esteemed Members of the House Armed Services Committee:

I stand before you today to advocate at Hancock Field Air National Guard Base. For those of you who are unfamiliar with Central New York, Hancock Field is a modern facility with very high military value. The strategic location of the base, high recruitment and retention rates, and infrastructural investment of more than $150 million in military construction over the past 15 years, establishes Hancock Field as an important asset to our nation's military. Hancock Field is a joint facility hosting two Air Guard units – the 174th Attack Wing and 152nd Air Operations Group – and the Army Guard and Reserve and MEPS facility. The region's Navy and Marine Reserve units are co-located next door to Hancock Field. Fort Drum is just minutes away by RPA - and is home to a multi-million dollar Air National Guard range. The 174th manages the range and dedicated training air space over the Adirondacks used by several units from outside the State of New York. Combined, Hancock Air National Guard Base has attributed an economic impact of more than $700 million to New York over the past three years and is crucial for the local economy in Syracuse, New York.

The 174th serves as one of three Formal Training Units (FTU) for remotely piloted aircraft (RPA) in the United States Air Force. With the proliferation of Unmanned Aerospace Systems in our nation and abroad, I believe it is imperative that we fully maximize the capacity of training bases for RPA pilots. The potential shortage of pilots was emphasized by Air Force Chief of Staff General Mark Welsh when he stated that the Air Force could only train approximately 180 of the 300 necessary RPA pilots. Hancock Field serves a vital role in combating this potential shortage by producing over 50 combat trained crews and 300 trained MQ-9 mechanics annually.

Recently, I had the pleasure of addressing the importance of the 174th with Secretary of Defense Ashton Carter at Syracuse University. I discussed with him the tangible benefits that the 174th provides not only to the Syracuse community but to Central and Upstate New York as well. There are many partnerships with Hancock Field, including conducting drills at Fort Drum and collaborating with NUAIR and the Air Force Research Laboratory Information Directorate at Rome.

This summer, Hancock Field will be the first Air Guard location to test Ground Based Sense and Avoid radar with the FAA. Currently, Air Guard units are prohibited by the FAA from flying their RPAs in the National Airspace System without an alternate means of compliance with FAA rules to "see-and-avoid" other aircraft. This requirement has restricted RPA operations to only those ANG units with immediate access to Restricted Airspace. This forces ANG units to base their Launch and Recovery Elements (LREs) far from their assigned bases, increasing the cost of training and limiting the amount of flight time available for pilots. For example, the 174th is forced to drive two hours each way from Syracuse, NY to Wheeler-Sack Army Airfield at Fort Drum, NY to launch and recover their MQ-9 Reapers for daily training missions.

Procuring and installing a DOD approved Ground Based Sense and Avoid (GBSAA) system that is both scalable and transportable at each ANG unit's base of operation would increase the efficiency and cost-effectiveness of aircraft training. The Army has a GBSAA system that is an approved solution to UAS airspace integration by the Office of the Secretary of Defense and the FAA. The GBSAA system will allow each unit to locate their LRE at their base of operation, reducing the cost of training and increasing the operational efficiency of each unit. The objective is to ensure readiness of the Air National Guard MQ-9 RPA fleet.

As many of you know, DHS and the Air Guard have been trying to formulate a long-term partnership involving shared maintenance training and operational support for RPAs between Customs and Border Protection and the Air Guard. This potential partnership would save the taxpayers millions of dollars and leverage the investment in facilities and manpower at Hancock Air National Guard Base.

Thank you for allowing me to speak in front of this committee and I look forward to working with you to protect our national security assets.

Sincerely,

John Katko
Member of Congress

STATEMENT BY

THE HONORABLE BRENDA L. LAWRENCE

U.S. REPRESENTATIVE OF THE 14TH CONGRESSIONAL DISTRICT OF MICHIGAN

BEFORE THE HOUSE ARMED SERVICE COMMITTEE

FIRST SESSION, 114TH CONGRESS

DEFENSE APPROPRIATIONS FOR FISCAL YEAR 2016

APRIL 14, 2015 AT 10:30 A.M.

2212 RAYBURN HOUSE OFFICE BUILDING

WASHINGTON, DC 20515

Thank you, Mr. Chairman for having me here this morning. I would also like to thank all the members of the committee for allowing me the opportunity to testify on this important matter.

Today, more than 200,000 women are in the active-duty military, including almost 70 generals and admirals. That number comprises approximately 74,000 in the Army, 53,000 in the Navy, 62,000 in the Air Force and 14,000 in the Marine Corps. Women make up about 14.5 percent of the active-duty force of almost 1.4 million.

Among the top ranks, only 7.1 percent of the 976 generals and admirals are women. Broken down this number remains way too small with 28 female generals in the Air Force, 19 in the Army, 21 female admirals in the Navy, and only 1 in the Marine Corps. Among the enlisted ranks, 60 percent of women are still in either the medical or administrative specialties; another 30 percent are in the supply units or part of the communications staff. The numbers are not much different for female officers.

While the move to lift the ban and open combat units in the military to women seemed risky to some, I strongly believe like many others – that it was about time. As former Secretary of Defense, Leon Panetta stated, "If members of our military can meet the qualifications for a job, then they should have the right to serve, regardless of creed or color or gender or sexual orientation".

Women make up over half the population in the United States and slightly less than half of the workforce. The private sector still struggles with the glass ceiling and pay equality is still not realized but we are making great strides. The military must continue to make great strides as well.

I agree with the National Women's Law Center that the most effective way to combat sexual assaults would be to create an independent, unbiased system of military justice, as provided in the proposed Military Justice Improvement Act. I hope the sexual assault provisions including those dealing with retaliation are fully monitored by this committee and by your senate counterparts.

Mr. Chairman, warfare is changing. We are in a time of fighting on multiple fronts using weapons we could not have even imagined during the Vietnam-era. Most of these weapons require knowledge of cyber warfare, the ability to use missiles and drones to fight from a distance. These and other modern weapons have equalized the potential for women in combat, since wars are less likely to be fought on a hand-to-hand basis.

The fast paced advance of technology is producing changes in the threats we face. How can we keep up? The answer is to be just as innovative with our human resources strategy as we are with our weapons and tactics. Members of this committee know the world is changing, warfare is changing, and our military must change with it or suffer the consequence.

Cybersecurity threats are one of the greatest national security challenges we face today. Our future as a nation depends upon a reliable cyberspace for infrastructure, commerce, communications, and government at every level. It is critical that America has a Cyber Mission Force that can strengthen and rigorously protect this critical infrastructure.

The Department of Defense has adopted new and powerful technologies that make the military more effective and efficient. Despite the power and speed of these technologies we still have some major cyber vulnerabilities. Whether through Internet-based attacks or malicious cyber hardware, we are the primary target of cyber-attacks, jeopardizing or seriously impairing military operations.

We must do more to prevent enemies from using our cyber vulnerabilities against us. We must leverage our strengths in cyber operations for offensive purposes where needed. I believe that we have to provide for the private development of cybersecurity supply chain ratings and accreditation. While the Department of Defense is the most reliable government protector of the cyber supply chain, more work remains to be done. Our business community is ready to accept this challenge.

In Michigan, we are ready to meet the challenge. We have supply chains that feed such large defense contractors as General Dynamics, TACOM and TARDEC. Our connection to the defense industry is a long and well-established one. When the United States needed innovation during World War II, President Roosevelt turned to Michigan.

Michigan is the unrivaled epicenter for R&D activity, testing prototyping and manufacturing for all aspects of connected vehicles and intelligent transportation systems. Michigan has more engineers per capita than any other state. Our numerous R&D centers provide engineering, design and research support for several industries, including defense and manufacturing systems.

We must continue to develop defensive and offensive cyber capabilities at U.S. Cyber Command and within the combatant commands and services. Each part of the military has a need for defensive cyber capabilities, and many also have the need for offensive capabilities. U.S. Cyber Command is critical for ensuring leadership and a centralized command for cyber operations. While Cyber Command set a goal of 133 operational cyber teams by the end of 2016, as of February 2014, only 17 were fully operational. We need to properly support the development, training, and deployment of those teams.

Implementing these policies, together with expanding existing policies, such as cyber information sharing between the public and private sectors, will better prepare the Department of Defense to face serious cybersecurity challenges.

Finally, as you address Cyber Operations Squadrons for Air National Guard, I would like to express my strong support for the 110th Attack Wing of the Michigan Air National Guard in Battle Creek, MI to host a Cyber Squadron.

The Battle Creek Air National Guard Base's unique location and capabilities would enable CYBERCOM to fulfill its mission at a significant cost savings compared to bases without the same existing infrastructure.

Battle Creek Air National Guard Base's existing Cyber missions mean that much of the infrastructure required for this new mission is already in place. Projections show that a Cyber Operations Squadron at Battle Creek would save $2.2 million compared to a location without the same capabilities. Important and costly equipment such as a dual diverse/redundant infrastructure path, state of the art Defense Information Systems Agency Points of Presence and specialized

facility generator that meets the power requirements will cut down on the lead time to stand up the mission. The base is conveniently located near Fort Custer National Guard Training Center that will be able to offer additional support.

Michigan's current workforce and universities provide a strong foundation for current and future recruiting efforts. Michigan has a network of highly skilled IT professionals, qualified Defense Department personnel, as well as many public and private cyber security specialists. Michigan has twenty-two colleges and universities that offer degrees in cyber security, including five colleges that have earned NSA Centers of Excellence designations.

Cybersecurity is also a gender-neutral occupation. Allowing both men and women to serve our country and protect our nation as equals. I hope we will continue to see this growing area of concern addressed through effective human resourcing and adequate funding for advanced technology.

I am aware of how difficult your job is in these complex times. You serve to address the needs of our military service members, their families and their civilian counterparts at a time when we are facing security issues on multiple fronts. This is an awesome power and as such it comes with a heavy responsibility.

As you consider national security provisions that focus on cyber warfare, I respectfully ask that you consider the great state of Michigan and its ability to support national cyber missions. I ask that you help our military leadership see that this is not a security issue to be handled with brawn, but with brains.

Thank you Mr. Chairman.

DOCUMENTS SUBMITTED FOR THE RECORD

April 14, 2015

Calendar No. 472

113TH CONGRESS 2d Session | SENATE | REPORT 113–211

DEPARTMENT OF DEFENSE APPROPRIATIONS BILL, 2015

JULY 17, 2014.—Ordered to be printed

Mr. DURBIN, from the Committee on Appropriations, submitted the following

REPORT

[To accompany H.R. 4870]

The Committee on Appropriations, to which was referred the bill (H.R. 4870) making appropriations for the Department of Defense for the fiscal year ending September 30, 2015, and for other purposes, reports the same with an amendment in the nature of a substitute and recommends that the bill as amended do pass.

New obligational authority

Total of bill as reported to the Senate	$542,771,568,000
Amount of 2014 appropriations	565,093,629,000
Amount of 2015 budget estimate	544,122,025,000
Amount of House allowance	563,865,320,000
Bill as recommended to Senate compared to—	
2014 appropriations	−22,322,061,000
2015 budget estimate	−1,350,457,000
House allowance	−21,093,752,000

88–673 PDF

$20,000,000 for procurement and $10,000,000 for research, development, test and evaluation.

In addition, the Under Secretary of Defense (Comptroller) is directed to continue to provide the congressional defense committees quarterly, spreadsheet-based DD Form 1416 reports for service and defense-wide accounts in titles III and IV of this act. Reports for titles III and IV shall comply with guidance specified in the explanatory statement accompanying the Department of Defense Appropriations Act, 2006. The Department shall continue to follow the limitation that prior approval reprogrammings are set at either the specified dollar threshold or 20 percent of the procurement or research, development, test and evaluation line, whichever is less. These thresholds are cumulative from the base for reprogramming value as modified by any adjustments. Therefore, if the combined value of transfers into or out of a procurement (P–1) or research, development, test and evaluation (R–1) line exceeds the identified threshold, the Secretary of Defense must submit a prior approval reprogramming to the congressional defense committees. In addition, guidelines on the application of prior approval reprogramming procedures for congressional special interest items are established elsewhere in this statement.

PROCUREMENT OVERVIEW

Physical Access Control Systems.—The Committee is concerned with the challenges the Department of Defense continues to face with the efficacy of their physical access control systems that should prevent unauthorized access to Department of Defense installations. The Department of Defense continues to develop and deploy incompatible programs and systems. These solutions increase costs and often fail to meet existing requirements. Commercially available physical access control systems address these shortfalls in that they are affordable, meet Department of Defense requirements, and do not have a significant sustainment cost. Therefore, the Secretaries of the Army, Navy, and Air Force shall perform a business case analysis that examines the development, procurement, and sustainment cost of existing physical access control systems compared to the cost of physical access control systems available commercially. The Secretaries shall provide a report to the congressional defense committees summarizing the outcome of this business case analysis and actions they plan to take to implement the most affordable solution no later than 180 days after enactment of this act.

Rocket Motor Industrial Base.—The Committee is concerned that the domestic industrial base for tactical solid rocket motors continues to be impacted by constrained budgets, the use of foreign vendors, and a lack of competition. For example, a foreign supplier began development and qualification for a new rocket motor on the AMRAAM missile in 2009 after the domestically supplied rocket failed to qualify because of issues with the propellant and the blast tube insulation. The Committee has learned that the Navy may also be exploring a rocket motor source from a foreign vendor for a tactical missile program. Finally, the Committee understands that the Army recently awarded a sole-source contract for rocket

motors for the Guided Multiple Launch Rocket System, a program that has been stable and in production for some time.

The Committee is concerned that in these programs, a competition for a new rocket motor vendor was not executed; and in two programs, the Department is becoming more reliant on a foreign supplier. The Committee is closely following these developments across all services, as rocket motors continue to be a critical component of the defense industrial base. The Committee believes that whenever possible, domestic sources should be considered, and full and open competition employed before awarding contracts.

Therefore, the Committee directs the Under Secretary of Defense for Acquisition, Technology, and Logistics to conduct an independent assessment of domestic and foreign-sourced rocket motor propulsion for all Department of Defense tactical missile programs. This report should include the impacts of foreign-sourced rocket motors on domestic suppliers, and the national security impacts on the defense industrial base. This report shall be delivered to the congressional defense committee not later than 180 days of enactment of this act.

The Committee also directs the Government Accountability Office [GAO] to provide a report to the congressional defense committees within 180 days of enactment of this act that outlines the assumptions and analysis utilized by the Army to justify a sole-source contract to develop and qualify new, insensitive munitions-compliant rocket motors for the Guided Multiple Launch Rocket System, and why a competitive acquisition strategy was not used.

Army Organic Industrial Base.—The Committee directs the Secretary of the Army to provide 45-day written notification to the congressional defense committees prior to the Secretary approving civilian reductions in force that will result in an employment loss of 50 or more full-time employees at any Army organic industrial base facility. The notification shall include the impact that the proposed reduction in force will have on the ability to maintain the organic industrial base critical manufacturing capabilities as delineated in the Army Organic Industrial Base Strategy Report, a detailed accounting of the costs of implementing the reduction in force, and an assessment of the cost of, and time necessary, to restore any lost capability to meet future organic wartime manufacturing needs.

Management of Conventional Ammunition Inventory.—The Committee is aware of the Department of Defense's efforts to better manage its conventional ammunition inventory. The Government Accountability Office recently reported in "Actions Needed to Improve Department-wide Management of Conventional Ammunition Inventory" that more work needs to be done, particularly regarding information sharing between the services. Incomplete and unreliable inventory systems can lead to the wasteful destruction of ammunition, duplicative procurement of ammunition that may be available in the stockpiles of another service, and shortages of ammunition required for forward-stationed forces. To use limited resources more efficiently and improve support to our warfighters, the Committee encourages the Department of Defense to accelerate efforts to automate ammunition tracking and inventory accounting, and affirms its support for the reporting requirements directed in

Annual Industrial Capabilities

Report to Congress

October 2013

Under Secretary of Defense
for Acquisition, Technology and Logistics

Office of the Deputy Assistant Secretary of Defense
for Manufacturing and Industrial Base Policy

Preparation of this study cost the
Department of Defense a total of approximately
$125,000 dollars in Fiscal Years 2012-2013.

volume, specialty-demand of the Department. It is working to address these issues, particularly in the areas of castings adaptability and machining. Additional information about these efforts can be found in Section 6.1.1. In addition, the Department is investing in a Title III project to upgrade and refurbish equipment at the single domestic source for heavy forgings for DoD applications including propulsion shafts for surface and sub-surface naval vessels, periscope tubes, ring forgings for bull gears, and reactor vessels. This project will address production constraints and single points of failure that are critical to maintain the supply of heavy forgings to the DoD. For more details, see Appendix C.1.

Recognizing the increasing global demand for materials, the diminishing role of demand from the defense industrial base, and the susceptibility of supply chains to distortion, the Department is engaged in a number of activities aimed at continually assessing the ability of material supply chains to provide reliable and cost-effective products to meet the requirements of the nation's Warfighters. For example, the Department co-chairs (with the Department of Energy) a working group of the recently chartered National Science and Technology Council's (NSTC) Committee on Critical and Strategic Minerals Supply Chains. The working group, Material Criticality Assessment and Early Warning, will assess the material needs associated with the technologies that will be essential to future economic growth, as well as those that will be required by the defense industrial base. This effort provides synergies to efforts undertaken by the Department, such as those in DLA Strategic Materials, which are focused more narrowly on the defense industrial base.

4.6 Munitions and Missiles Sector Industrial Summary

The munitions and missile industrial sector consists of DoD's smart bombs, and tactical, missile defense, and strategic missiles. For this report, it does not include ammunition, mortars, or tank rounds. The munitions and missiles industrial sector is primarily a defense unique sector. The munitions and missiles development and production market has contracted, resulting in aggressive competition for limited new program opportunities. Most current missile development activity consists of modifications to existing systems. Over time, the Department has provided the necessary resources to allow the industrial sector to ramp up production for munitions and missile systems to support Warfighter needs when the country is engaged in conflict, and reduces these resources when the conflict ends. This cycle of rapid ramp-ups followed by precipitous declines of demand and production adds significant supplier capacity management challenges to munitions and missile suppliers and their critical sub-tier providers.

Within the munitions and missile sector, two prime contractors account for roughly 85 percent of the Department's munitions and missile procurement funding. These prime contractors provide a full complement of missile types across the munitions and missiles sector and, for the most part, are able to meet defense unique technical performance requirements, but not without concerns. Roughly half of the

Department's munitions and missile production programs are operating at facility utilization rates equal to or less than 50 percent. DoD's prime contractors and their associated sub-tier supplier base must align company production capacities with expected DoD budget realities, while ensuring the industrial capabilities needed for our next generation weapon systems are sustained.

As already constrained DoD budgets become more strained by continued budget uncertainty and higher priority programs like operational readiness and aircraft and ships procurements, investments in munitions and missile research and development and subsequent procurements may be further reduced. The munitions and missiles industrial sector faces a number of industrial capability challenges. These challenges fall into two broad categories: (1) sustaining our design and engineering teams and (2) sustaining the sub-tier supplier base.

Sustaining Missile Sector Design and Engineering Industrial Capabilities

Most of the research and development funding in the munitions and missile sector is associated with legacy program upgrades or modifications, which limit competitive opportunities. The shortage of new missile program developments inhibits the Department's ability to fully exercise the industrial capabilities necessary– from design concept, system development, and production – to meet current and future national security needs. The Joint Air-to-Ground Missile (JAGM) is the only "new" missile development program in competition and it has been restructured as a technology development program. An indication of the concern for missile design engineering capabilities can be seen through the development of the newest DoD strategic missile in the U.S. inventory, the Trident D5 missile. This missile began its development in 1978, which built upon the development of the Minuteman III that had its inception in the 1960s. Both of these strategic systems, the Trident D5 and the Minuteman III, will eventually reach the end of their operational service lives as currently configured, and will require either modification or replacement. Both the Navy and the Air Force are developing requirements for next generation missiles: Navy Offensive Anti-Surface Warfare (OASuW) and Air Force next gen Air-Launched Cruise Missile (ALCM). However, the Department remains concerned that the design engineering capabilities needed for these systems may not be readily available should the sector atrophy in the absence of demand. The following table provides a sampling of when some of our missile programs began development and lists the current program variant.

DoD Missile Program Updates			
Missile Program	**Development Started**	**Production or Delivery Started**	**Current Variant**
AIM-9 Sidewinder	1946	1953	AIM-9X
AMRAAM	1979	1988	AIM-120D
Hellfire	1974	1982	AGM-114N
TOW	1963	1968	TOW-2B
Patriot	1969	1981	PAC-3 MSE
Standard Missile	1963	1967	SM-6
Trident D5	1978	1987	D5
Minuteman III	1964	1968	MM III
Tomahawk	1970's	1983	Block IV
JASSM	1995	2001	JASSM-ER

Source: DASD(MIBP)

The contraction of the munitions and missile development and procurement market has created a situation where expertise in defense-unique technologies is thinning in both the contractor and the Federal government workforce. Declining munitions and missiles research and development funding, coupled with limited competitive opportunities projected in the near-term for new munitions and missile systems, will make it difficult for the missile sector industry to attract and retain a workforce with the industrial capabilities to design, develop and produce future missile systems that will meet national security requirements. Continuing our S2T2 activities will improve the Department's ability to identify at-risk design capabilities. Two examples of at-risk sub-tier sectors include:

- *Missile Propulsion Systems*: Sustaining the design engineering skills for missile propulsion systems is at risk. The Department relies on the viability of a small number of SRM and turbine fan engine propulsion providers to sustain propulsion technology and design engineering skills. Many of the Department's missile upgrade and modernization programs utilize the existing propulsion system. Decreased Navy Tactical Tomahawk cruise missile production quantities (and the potential for future production quantity reductions), Air Force delays to the JASSM-ER LRIP program, few new start missile or upgrade programs that develop new propulsion systems, and the lack of future research and development technology investments threaten the viability of the missile propulsion technology and engineering capabilities. Developments in foreign nations have led to higher speed, longer-range weapons and advanced air defense capabilities abroad. These increased capabilities will compel the U.S. to pursue improved standoff, survivable and responsive missiles. Without sustainment of the existing missile propulsion industrial base, future development of missile programs could be delayed by five to ten years or more while the U.S. is reconstituting its propulsion design and engineering capabilities. Preserving the existing national missile propulsion capability, with an emphasis on the design engineering team, is of utmost importance.

- *Tri-mode Seekers*: Tri-mode seekers are defense unique systems that offer a technologically advanced capability. Over the years, the Department fought to maintain two competitive sources for these systems to ensure we maintained competitive design teams for current and future applications. These systems require a highly trained and unique design engineering and production workforce. While seekers have a broader cross-defense sector market, they are predominantly provided by the munitions and missile prime contractor because it considers this capability a core competency.

Sustaining Missile Sector Sub-tier Suppliers

The health of sub-tier suppliers in defense unique fields is a serious and valid concern. Examples of defense unique fields in this sector are radomes, infrared domes, sensor arrays, thermal batteries, actuators, advanced electronic components and assemblies, warheads, and propulsion systems. Important sub-tier components in the munitions and missile industrial segment that continually face excess capacity challenges include thermal batteries, solid rocket motors (SRMs), fuzes, jet engines, inertial measurement units (IMUs), global positioning system (GPS) receivers, seekers, and warheads. The suppliers that provide these components are important because these components are used on multiple programs and some require 12 months or more to manufacture. Some of these sub-tier supplier products have broader cross industrial sector and commercial applications that provide a more reliable and stable market base to sustain our industrial design and production capabilities like the IMUs, GPS receivers, and seeker product sectors, while others are more unique to the munitions and missile industrial sector.

The munitions and missile industrial sector is routinely impacted by significant shifts in DoD demand as a result of various factors – including initiation of new conflicts, conflict drawdowns, and the fact that weapons represent the most fungible of the products that the DoD procures in terms of procurement quantities. Decisions on quantities for ships, combat systems, and radars tend to be binary in that one is procured or isn't, but with weapons that isn't the case. This flexibility in weapons procurement quantities has tended to result in weapons being used as bill payers and the resultant impact of a declining business base. The Department is concerned with the ability of our munitions and missile prime contractors to manage and sustain critical sub-tier suppliers during these shifts in demand. Some of these critical sub-tier suppliers are single or sole source providers and some are foreign. As the Department draws down its operations in Iraq and Afghanistan, it is monitoring the impact of reduced demand on the sub-tier supplier base through continuing S2T2 assessments of the defense industrial base, in close cooperation with the Military Departments. The Department expects to identify a growing number of industrial capability risk areas as sub-tier suppliers realign and adjust their industrial capacities to new DoD budget realities. Using data obtained through the S2T2 analytic process, the Department identified several examples of defense unique at-risk areas – the solid rocket motor, thermal batteries, fuzes, and steel forged bomb bodies. Some of these areas of concern are described below.

- *Solid Rocket Motors (SRMs)*: SRMs are predominantly defense unique items upon which the Department depends. The certainty of demand is at risk because munitions and missiles are often used as bill-payers in fiscally constrained environments. The challenge is the high cost of reconstitution should the SRM industry encounter a significant production gap, particularly in the large, over 40-inch diameter segment of the market. NASA's retirement of the Space Shuttle and the transition of the Constellation program to the Space Launch System have resulted in significant under-utilization of existing capacity.

- *Thermal Batteries*: All DoD missiles and Precision Guided Munitions (PGMs) use thermal batteries. Thermal batteries are predominantly defense unique items. The domestic thermal battery industry has historically been dominated by one company, with little participation by other firms. The two other domestic companies that produce thermal batteries constitute less than 20 percent of the DoD thermal battery market. The dependency on one dominant thermal battery supplier makes this industry at risk.

- *Fuzes*: Fuzes are defense unique items. They are used on all munitions and missile programs. While funding for munitions has remained healthy over the last ten years, continued improvements in guided systems significantly reduce the quantity of fuzes required for our current and future systems. This has contributed to excess capacity in the fuzes sector. Excess capacity limits manufacturers from being cost competitive and sustaining a viable design engineering cadre. The U.S. currently has three full-capability fuze design manufacturing suppliers. The fuze prime contractors are aggressively managing several defense unique sub-tier component areas, such as electronic energy devices (e.g., bellows actuators), liquid reserve batteries, and certain obsolete electronic components, to ensure their ability to design and produce fuzes in the future.

- *Steel Forged Bomb Bodies:* Steel forged bomb bodies are a unique defense item. The Department relies on a sole source for the MK80 series bomb bodies used in the 500/1000/2000 lb. bombs. Projected procurements are down drastically. The producer is a large parent company; however, the business unit is at high risk of financial distress due to the projected downturn in procurements. Other technologies have been explored to include Cast Ductile Iron (CDI); however, this technology has not been qualified as a replacement for all applications.

Additionally, the Department has previously identified several sub-tier supplier issues of critical materials that require mitigation. These materials have been identified and provided to decision makers, including the OSD-level Critical Energetic Material Initiative (CEMI), for risk mitigation strategy development and execution. Examples of domestic and foreign source supplier issues are highlighted below:

- *Ammonium Perchlorate (AP)*: One sole U.S. supplier for AP remains for the SRM industry (both small and large diameter systems). The size and grain of the AP used in defense applications is unique to the SRM market. Demand for production of AP is well below historic levels and approaching the minimum sustaining rate (MSR). Volumes have fallen so low that there is a risk that the vendor may not be able or willing to sustain its workforce skill levels and the supply chain, while remaining competitive. The Department is working across the Government to preserve this capability as well as invest in future capabilities.

- *Butanetriol (BT)*: The Department is currently dependent on a foreign source for BT. Butanetriol, identified on the U.S. Munitions List (USML), is a chemical precursor needed for production of butanetriol trinitrate (BTTN), a nitrate ester/plasticizer (part of the binder), used in the production of SRMs for the Army's Hellfire, TOW-2, Griffin and Javelin missile systems. The previous BT source discontinued production of the chemical in 2004. At that time, the Department's BTTN provider acquired the remaining inventory and began looking for another supplier. In 2007, the Army conducted a global search for sources of BT. Only one source was identified that could produce at the quantities and quality required. However, Section 1211 of the National Defense Authorization Act for Fiscal Year of 2006 prohibits the acquisition of items listed on the USML from companies such as this producer unless a waiver is approved. The Secretary of the Army signed a waiver in 2008 and 2011 to prevent a production gap until the Department can develop a domestic source. The U.S. Army expects to have a new source qualified by the end of FY2013.

- *Rayon Precursor Material*: Rayon precursor material is commonly used to produce high thermal resistance in SRM nozzles and other space composite applications. The sole U.S. supplier of rayon precursor material shut down its facility in 1997. However, the Defense Department and NASA were able to purchase the remaining stockpile of rayon precursor material for use while they, along with the SRM prime contractors, are continuously working to qualify another source to fill this supplier void.

- *Triaminotrinitrobenzene (TATB)*: TATB is one of the least sensitive explosive materials known. This material is predominantly used in PBXN-7 and PBXW-14 for fuze applications. TATB has not been produced since 2006. The Department awarded the TATB Phase I Mod and Phase II Facilitization contracts in July and August of 2011. The TATB plant design completed earlier this year is based on the Benziger process and leverages existing infrastructure. Process prove-out, completion of consecutive specification compliant production runs, and formulated production scale batches of PBXN-7/PBXW-14 are expected to be completed in FY2013.

- *Antimony Sulfide*: Antimony Sulfide is a component of energetic compositions used in percussion primers and several fuze/detonator ignition trains that support over 200 DoD munitions. It is also an industrial commodity material used

commercially to manufacture flame retardant plastics and textiles. Antimony Sulfide is refined from stibnite ore that is mined underground. Large deposits of stibnite ore are located in the earth's crust. There are no known mines producing acceptable grade ore under U.S. or NATO partner control. China is the largest producer of antimony sulfide and controls its availability on the world market. The Army Research and Development Engineering Center (ARDEC) has ongoing efforts to identify and qualify alternative percussion primer compositions that do not contain antimony sulfide and other similar materials that are foreign dependent or environmentally undesirable.

The Department will continue to monitor at-risk areas within the munitions and missile sector using various analysis tools, to include S2T2 assessments, and will identify additional mitigation strategies, as warranted.

4.7 Shipbuilding Sector Industrial Summary

The shipbuilding industrial base is highly concentrated. In the U.S. shipbuilding and repair industry, the largest 50 companies account for about 90 percent of the combined annual revenue of about $21B. The defense industrial base for shipbuilding is comprised of two major primes, General Dynamics and Huntington Ingalls (formerly a unit of Northrop Grumman) and their subsidiaries, and a thin layer of second tier industrial base suppliers. The result is a shipbuilding and repair supply base that is often one-deep in specialized capabilities.

The industrial base necessary to build and maintain platforms for Defense relies on a complex, heavy industry where ships are procured at very low annual production rates that require significant capital investment and infrastructure, coupled with a wide range of technical capabilities designed for operations at sea, undersea, and air, often requiring unique design and engineering skills. Yet research and development investment is low, and building ship prototypes is infeasible. Accordingly, procurement and modification contracts are key mechanisms for maintaining shipbuilding design engineering skills in the U.S.

In 2012, the shipbuilding sector remained generally stable. However, it is unclear at the writing of this summary what the impact of an extended budget sequestration may have on the mix of future force structure and on the contracts awarded to companies for future year deliveries. Given the reliance of the shipbuilding sector on defense procurement contracts to maintain skills and infrastructure, changes in quantity and/or fleet composition will need to be assessed for impacts on the primes and sub-tier suppliers moving forward.

At the prime level in defense shipbuilding, shipyards and major tier-one suppliers remain in stable financial health with little growth in revenue. As a result of poor fourth-quarter revenues, General Dynamics (GD) Marine Systems reported relatively flat revenues (decrease of 0.6 percent) and an increase of 8.5 percent in operating earnings

Annual Industrial Capabilities Report to Congress

Required by Section 2504 of title 10, United States Code

August 2012

Under Secretary of Defense
for Acquisition, Technology and Logistics

Office of the Deputy Assistant Secretary of Defense
for Manufacturing and Industrial Base Policy

Preparation of this study cost the
Department of Defense a total of approximately
$98,800 dollars in Fiscal Years 2011-2012

sector. Therefore, maintaining a vibrant commercial manufacturing base is essential to the health of the defense industrial base.

A group of materials with numerous commercial as well as defense applications is the rare earth elements. In general, the domestic supply chain for all end-uses for these materials exists, but is thin. In particular, there is one niche for which there is no domestic production, neodymium-iron-boron magnets (neo magnets). International trade augments the domestic supply chain, but currently, China and Japan are the principal sources for these magnets, and presently, China is the ultimate source of most of the rare earth material required to manufacture the magnets in Japan. With a recent announcement by a major Japanese neo magnet producer who holds the required intellectual property rights, capabilities are increasing within the domestic supply chain for rare earth materials, including the future domestic production of neo magnets. The producer plans to construct a neo magnet facility in the U.S. with a startup planned in mid-2013. In addition, a U.S. company, in a joint venture with two Japanese companies, will produce neo magnets by early next year in Japan using non-Hitachi technology.

Recognizing the increasing global demand for materials, the diminishing role of demand from the defense industrial base, and the susceptibility of supply chains to distortion, the Department is engaged in a number of activities aimed at continually assessing the ability of materials supply chains to provide reliable and cost-effective products to meet the requirements of the nation's Warfighters. For example, the Department co-chairs (with the Department of Energy) a working group of the recently chartered National Science and Technology Council's (NSTC) Committee on Critical and Strategic Minerals Supply Chains. The working group, Critical Material Criteria and Prioritization, will assess the materials needs associated with the technologies that will be essential to future economic growth, as well as those that will be required by the defense industrial base. The Department's Strategic Materials Protection Board (SMPB) met in October 2011, at which time the Chair of the SMPB indicated the Department needed to isolate those materials for which the Department has a specific equity, and that a means of sharing this information with the NSTC Committee's working group would be beneficial.

4.7 Munitions and Missiles Sector Industrial Summary

The munitions and missile industrial sector is primarily a defense unique sector with some elements of the small diameter munitions base also serving commercial and civilian markets. The Department typically acquires munitions systems on an as-needed basis. Over several cycles, the sector has provided necessary resources to ramp up production for munitions and missile systems to support Warfighter needs when the country is engaged in conflict, and reduces production when the conflict ends. This cycle of rapid ramp-ups followed by precipitous declines of demand and production adds significant supplier capacity management challenges to critical sub-tier munitions and missile suppliers.

Within the missile sector, two prime contractors account for approximately 85 percent of the Department's munitions and missile procurement funding. Competition at the sub-tier level exists in some instances, depending on the specific missile system in development. However, many of the sub-tier suppliers service both companies, so competition at the lower tiers is limited. The two prime contractors serve on the majority of defense programs comprised of strategic, tactical, and ballistic missile defense. They are also generally able to meet defense unique technical performance requirements.

As budgets in the future are increasingly constrained, investments in munitions and missile R&D and procurement may be reduced. The munitions and missiles industrial sector faces a number of industrial capability challenges that fall into two broad categories: (1) sustaining design and engineering teams, and (2) sustaining critical suppliers in the sub-tier industrial base.

Most of the R&D funding in the munitions and missile sector is associated with legacy program upgrades or modifications that limit competitive opportunities. The Joint Air-to-Ground Missile (JAGM) is currently the only new missile development program in competition. The newest DoD strategic missile in the U.S. inventory is the Trident D5 missile that was developed in the 1980s with the Minuteman III developed even earlier in the 1960s. Both the Air Force and Navy are developing requirements for next generation missiles: Navy Offensive Anti-Surface Weapon (OASuW) and Air Force next generation Air-Launched Cruise Missile (ALCM). However, the Department remains concerned that the industrial design engineering capabilities needed for these systems may not be readily available should the sector atrophy in the absence of demand.

The shortage of new missile program development limits the Department's ability to fully exercise the industrial capabilities necessary in the missile industrial base – from design concept, system development, and production – to meet current and future national security needs. Additionally, declining munitions and missiles R&D funding, coupled with limited competitive opportunities projected in the near-term for new munitions and missile systems, will challenge the munitions industry's ability to attract and retain a qualified and experienced workforce.

The Department is also concerned with the ability of munitions and missile prime contractors to sustain critical sub-tier suppliers. Many sub-tier suppliers are single or sole source providers and some are foreign-based. The munitions and missile industrial sector is routinely affected by shifts in DoD demand because of various factors; most commonly, by the initiation of new conflicts or the cessation of conflicts. Two examples of at-risk sub-tier suppliers include:

- *Long-range Cruise Missile Propulsion*: The long-range cruise missile propulsion sector is at risk of losing its design and engineering team. The Department relies on the viability of a sole U.S. source for its long-range cruise missile propulsion technology and production. Decreased Navy Tactical Tomahawk cruise missile production quantities (and the potential for future production quantity reductions),

Air Force delays to the JASSM-ER LRIP program, coupled with the lack of future R&D technology investments, have threatened the viability of the sole U.S. source for long-range cruise missile propulsion technology. Loss of the U.S. cruise missile propulsion industrial base would adversely affect current procurement of the Department's long-range cruise missiles and its ability to support existing long-range cruise missile weapon systems. The risk is not limited to only current capability. Developments in foreign nations have led to higher-speed, longer-range weapons, and advanced air defense capabilities abroad. These increased capabilities will compel the U.S. to consider material solution options including cruise missiles with enhanced standoff, survivability, and responsiveness. Without sustainment of the existing cruise missile propulsion industrial base, future development of long-range strike (OASuW and ALCM) capabilities could be delayed by 5-10 years or possibly even longer. Preserving the existing national cruise missile propulsion capability, with an emphasis on the design engineering team, is of utmost importance.

- *Tri-mode Seekers*: Tri-mode seekers are defense unique systems that offer a technologically advanced capability. Over the years, the Department fought to maintain two competitive sources for these systems to ensure maintenance of competitive design teams for current and future applications. These systems require a highly trained and unique design engineering and production workforce. While seekers have a broader cross-defense sector market, munitions and missile prime contractors primarily support them, because they consider this capability a core competency.

As the Department draws down its operations in Iraq and Afghanistan, it is monitoring the impact of reduced demand on the sub-tier supplier base through continuing S2T2 assessments of the defense industrial base in close cooperation with the Military Departments. The Department expects to identify a growing number of industrial capability risk areas as sub-tier suppliers realign and adjust their industrial capacities to new DoD budget realities. Using data obtained through the S2T2 analytic process, the Department has identified several examples of defense unique at-risk areas: solid rocket motors, small turbine engine, thermal batteries, and fuzes, some of which are described below.

- *Solid Rocket Motors (SRMs)*: SRMs are predominantly defense-unique items upon which the Department depends. The certainty of demand is at-risk, because munitions and missiles are often used as bill-payers in fiscally constrained environments. The challenge is the high cost for reconstitution should the SRM industry encounter a significant production gap, particularly in the large, over 40-inch diameter, segment of the market. NASA's retirement of the Space Shuttle and cancellation of Constellation have resulted in significant under-utilization of existing capacity.

- *Thermal Batteries*: All DoD Precision Guided Munitions (PGMs) use thermal batteries. Thermal batteries are predominantly defense-unique items and the

domestic thermal battery industry has historically been dominated by one supplier with little participation by other firms. Two other domestic companies that produce thermal batteries constitute less than 20 percent of the DoD thermal battery market. The dependency on a dominant supplier of thermal batteries makes this industry at-risk.

- *Fuzes*: Fuzes are defense-unique items. They are used on all munitions and missile programs. While funding for munitions has remained healthy over the last ten years, continued improvements in guided systems significantly reduced the quantity of fuzes required for current and future systems. This has contributed to excess capacity in the fuzes sector. Excess capacity limits manufacturers from being cost competitive and sustaining a viable design engineering cadre. The U.S. currently has three full-capability fuze design manufacturing suppliers . Site visits conducted as part of the Department's S2T2 assessments revealed that fuze prime contractors are aggressively managing several defense unique sub-tier component areas, such as electronic energy devices (e.g., bellows actuators), liquid reserve batteries, and certain obsolete electronic components to ensure their ability to design and produce fuzes in the future.

Additionally, the Department has previously identified several sub-tier supplier issues that require mitigation. Examples are highlighted below:

- *Ammonium Perchlorate (AP)*: One sole U.S. supplier for AP remains for the SRM industry (both small and large diameter systems). The size and grain of the AP used in defense applications is unique to the SRM market. Demand for production of AP is well below historic levels and approaching the minimum sustaining rate (MSR). Volumes have fallen so low that there is a risk that the vendor may not be able or willing to sustain its workforce skill levels and the supply chain, while remaining competitive. The Department is working across the Government to preserve this capability as well as invest in future capabilities.

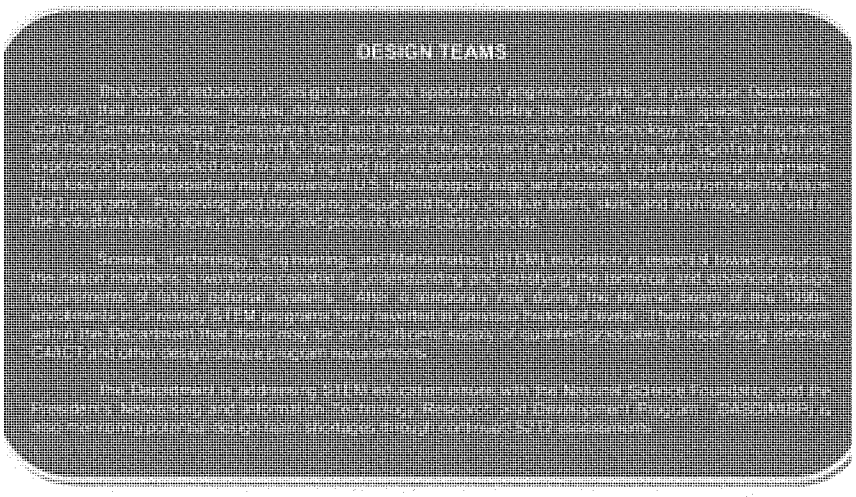
- *Butanetriol (BT)*: The Department is currently dependent on a foreign source for BT. Butanetriol, identified on the U.S. Munitions List (USML) is a chemical precursor needed for production of butanetriol trinitrate (BTTN), a nitrate ester/plasticizer (part of the binder), used in the production of SRMs for the Army's Hellfire, TOW-2, and Javelin missile systems. The previous U.S.-based BT source discontinued production of the chemical in 2004. At that time, the Department's BTTN provider acquired the remaining inventory and began looking for another supplier. In 2007, the Army conducted a global search for sources of BT. Only one source was identified that could produce at the quantities and quality required. However, section 1211 of the National Defense Authorization Act of 2006 prohibits the acquisition of items listed on the USML from companies such as this producer. The Secretary of the Army signed waivers in 2008 and 2011 to prevent a production gap until the Department can develop a domestic

source. The U.S. Army expects to have a new source qualified by the first quarter of FY2013.

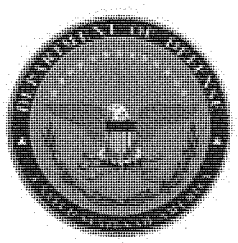
- *Rayon Precursor Material*: Rayon precursor material is commonly used to produce high thermal resistance in SRM nozzles and other space composite applications. The sole U.S. supplier of rayon precursor material closed its facility in 1997. However, the Defense Department and NASA were able to purchase the remaining stockpile of rayon precursor material for use while they, along with SRM primes, are continuously working to qualify another source to fill this supplier void.

- *Triaminotrinitrobenzene (TATB)*: TATB is one of the least sensitive explosive materials known. This material is predominantly used in PBXN-7 and PBXW-14 for fuze applications. TATB has not been produced since 2006. The Department awarded the TATB Phase I Mod and Phase II Facilitization contracts in July and August of 2011. TATB plant design completed earlier this year is based on the Benziger process and leverages existing infrastructure. Process prove-out, completion of consecutive specification compliant production runs, and formulated production scale batches of PBXN-7/PBXW-14 are expected to be completed first quarter of FY2013.

The Department will continue to monitor at-risk areas within the munitions and missile sector through sustained S2T2 assessments and will identify additional mitigation strategies, as warranted.



Annual Industrial Capabilities Report To Congress



September 2011

Office of Under Secretary of Defense
Acquisition, Technology & Logistics

Office of Manufacturing & Industrial Base Policy

Preparation of this study cost the
Department of Defense a total of approximately
$78,000 dollars in Fiscal Years 2010-2011

Non-Line-Of-Sight Cannon; BAE also received significant reset and upgrade work for the Bradley Fighting Vehicle.

GDLS and BAE along with Navistar, AM General and Lockheed Martin, have received development contracts for the Joint Light Tactical Vehicle (JLTV). The Army currently plans to eventually procure 60,000 JLTVs and the Marine Corps 5,500. However, these numbers are subject to change as each service refines its tactical wheeled vehicle strategy and anticipated budgetary constraints are addressed.

There are "important" component suppliers for the vehicle industry; examples include tracked vehicle transmissions, armament and military unique forgings, castings; and metallic and composite materials used to make armor. Issues that continue to plague the ground vehicles sector include a continued need for overhaul, maintenance and repair of the vehicle fleet; consolidation of tracked vehicle design and manufacturing supplier base; increased survivability and mobility (protection and lighter/stronger armor); and the impact of future MGV and JLTV requirements and the ability of industry to adapt.

3.1.4 Missile Sector Industrial Summary

Missiles are classified into four segments: tactical missiles, strategic missiles, missile defense systems, and smart munitions. Generally, missile subsystems are categorized in four main areas: propulsion; armament, airframe, and navigation; guidance; and control (NGC). Smart munitions do not have a propulsion subsystem.

For roughly the last decade, missile programs and their associated funding profiles have remained fairly stable. However, this trend has recently started to change. For the strategic missile segment, procurement funding is declining. The funding is declining with the conclusion of the Minuteman III Guidance Replacement Program and the Propulsion Replacement Program. The Minuteman III Propulsion Replacement Program came to an end in August 2009 leaving the Navy D5 as the remaining strategic production program. The Air Force Minuteman III warm-line program that supports the solid rocket motor industrial subsector is expected to end in FY12. In the missile defense segment, the Department cancelled the Kinetic Energy Interceptor program and reduced the Ground-based Interceptor program. The procurement funding for missile defense programs has remained stable in part, due to increased foreign military sales. The procurement funding in the missile defense sector is for the PAC-3 and Standard Missile programs. The remaining missile defense funding is mostly in the Missile Defense Agency research and development line. Tactical and smart munitions funding has remained fairly stable thanks in part to increased foreign military sales. However, the Department cannot rely on this trend to continue.

Research, Development, Test and Evaluation (RDT&E) funding is declining. Most of the research and development funding in the missile sector is associated with legacy program upgrades or modifications which limits competitive opportunities. This is significant for strategic missiles since the skills for a new development may already be below threshold or lost altogether and there is no planned new development effort on the horizon. The Joint Air to Ground Missile (JAGM) is currently the only new missile development program. This lack of new missile program development limits our ability to fully exercise the industrial capabilities necessary in the missile industrial base – from design concept, system development, and production – to meet our current and future national security needs. Both the Air Force and Navy are developing requirements for next generation missiles and there is concern that the industrial capabilities needed for those systems may not be readily available. While many industrial sectors that support our national security requirements are supported by the commercial markets, the missile industrial sector is mostly defense unique.

The significant drawdown of defense budgets during the 1990's reduced the number of missile prime contractors from more than twelve to six. However, the prime contractors are not necessarily equal in industrial capabilities. With the cancellation of the Kinetic Energy Interceptor program, four of the primes only operate in one of the missile segments (Boeing – Smart Munitions, General Dynamics – Tactical Missiles, ATK – Tactical Missiles, and Northrop Grumman – Strategic Missiles). Northrop Grumman, ATK and General Dynamics are prime contractors on only one program – Northrop Grumman the MM III program, ATK the AARGM program and General Dynamics the 2.75" rockets (Hydra rockets).

Lockheed Martin and Raytheon account for roughly 85 percent of the Department's missile procurement funding. This indicates that while there is competition in this sector, it appears mostly limited to two contractors. Raytheon and Lockheed Martin are the prime contractors on the majority of the Department's missile programs and both have a mix of missile segment programs (tactical, ballistic missile defense, etc.).

The Department's missile prime contractors are profitable, able to meet their financial obligations, generally consistent in providing value to shareholders, and willing to invest back into the company via research and development or capital expenditures. For the most part, primes are able to meet the Department's technical performance requirements. However, there is a cost risk in the form of increased overhead rates to the Department as the facility utilization rates for missile prime contractors average in the 45 – 60 percent range. There is a need for prime contractors and their associated subtier supplier base to align company production capacities more in line with expected DoD budget realities in the future while ensuring the industrial capabilities needed for next generation weapon systems are sustained.

"Important" components in the missile industry segment include thermal batteries, solid rocket motors (SRMs), jet engines, inertial measurement units (IMUs), GPS receivers, seekers, fuzes, and warheads. The suppliers that provide these

components are considered "important" because they are used on multiple programs and some of these components require 12 months or more to manufacture.

The strategic missile segment funding is declining. With the MM III Guidance and Propulsion Replacement Programs ended, the Trident (D5) missile is the only remaining program. Currently there is no development or significant levels of R&D programs planned in this area. The Department is developing a plan to better align industrial capabilities in this segment with DoD requirements and ensure adequate technical and production resources for the large SRM industrial base to support the Department's strategic deterrence mission. The D5 program is producing at minimum viability levels in an over capacity environment.

At this time, the Joint Air-to-Ground Missile (JAGM) is the only major missile program being competed. The Department has established a Prompt Global Strike technology application program and both the Air Force and Navy are projecting a new missile start in the next few years. This small number of new programs is an indication of limited opportunities for industry to maintain their design teams.

As the DoD missiles budgets decline, the Department should expect to identify a growing number of industrial capability risk areas as the subtier supplier base struggles to align its industrial capacities to DoD budget realities. Examples include the solid rocket motor, small turbine engine, and fuze industries.

Declining RDT&E funding coupled with limited competitive opportunities projected in the near-term will make it difficult for the missile sector industry to attract and retain a workforce with the industrial capabilities to design, develop and produce future missile systems.

3.1.5 Services Sector Industrial Summary

In FY10 47.6 percent of all DoD contract spending was classified as supplies, 40.3 percent classified as services, with 12.1 percent classified as Research, Development, Test and Evaluation (RDT&E)[3]. As the dollar value of overall contract spending has increased dramatically, 184 percent since 2000, the percentage of spending in each domain has exhibited noticeable trends that are undoubtedly related to spending on Middle East conflicts. The percentage of supplies increased from 45 percent to 48 percent, the percentage of services remained steady at 40 percent; and the percentage of RDT&E decreased from 15 percent to 12 percent. All DoD contract actions are classified by Federal Supply Class/Service Codes (FSCs), which map to 23 service categories. In order to identify strategic sourcing opportunities, the Office of Strategic Sourcing in the Defense Procurement and Acquisition Policy (DPAP) Directorate consolidated the 23 service categories into eight portfolio groups. These

[3] After correcting for a $13.9B data entry error in Construction Related Services.

SRM Industrial Capabilities Report
to
Congress
Redacted Version

June 2009

Office of Under Secretary of Defense
Acquisition, Technology & Logistics
Industrial Policy

ATK Programs by SRM Segments		
Segment	**Program**	**Facility**
Tactical	Hydra 70	Radford AAP
	ESSM	Rocket Center, WV
	Hellfire	Rocket Center, WV
	TOW 2	Rocket Center, WV
	RAM	Rocket Center, WV
	Tomahawk Gas Generator (GG)	Rocket Center, WV
	AMRAAM	Rocket Center, WV
	AIM-9X Sidewinder	Rocket Center, WV
	NLOS PAM	Rocket Center, WV
	AGM-65 Maverick	Rocket Center, WV
Missile Defense	KEI Gas Generator	Rocket Center, WV
	SM3 BL IA3rd Stage SRM (TSRM)	Elkton, MD
	SM3 BL IA SDACS	Elkton, MD
	SM3 BL IB TSRM - Mk136	Elkton, MD
	SM3 BL IB TSRM - Mk136 add	Elkton, MD
	GMD SRM Stage 1 (Orion)	Bacchus, UT
	GMD SRM Stage 2 (Orion)	Bacchus, UT
	GMD SRM Stage 3 (Orion)	Bacchus, UT
	KEI 2nd Stage (40S)	Elkton, MD
	KEI 1st Stage (40SL)	Bacchus, UT
Strategic	MM III Stage 1	Promontory, UT
	MM III Stage 2	Bacchus, UT
	MM III Stage 3	Bacchus, UT
	D5 Stage 1	Bacchus, UT
	D5 Stage 2	Bacchus, UT
	D5 Stage 3	Bacchus, UT
Space Launch	Shuttle RSRM	Promontory, UT
	Ares RSRMV	Promontory, UT
	Castor IV	Promontory, UT
	Castor 120	Promontory, UT
	GEM 60	Bacchus, UT
	GEM 46	Bacchus, UT
	GEM 40	Bacchus, UT
	STARS 48 motors	Elkton, MD

Table 5

SRM Industrial Capabilities

Prime Level

The ability to produce SRMs and respond to the Department's needs requires industrial capabilities in three essential areas: experienced design engineering personnel, a current touch labor workforce with production facilities, and a viable subtier supplier base that can provide design-unique materials and components. The types of facilities and personnel are similar across SRM manufacturers in function but are

different in size and complexity. The major SRM industrial capabilities process areas can be separated into structures, propellant mixing, propellant cast and cure, inspection, final assembly and test. Some of the SRM industrial capabilities common at the prime contractor level include the workforce and facilities necessary for producing SRM case structures, mixing the SRM propellants and pouring the propellant into the case, inspecting the SRMs for bond line and propellant anomalies before and after completion of propellant cure, assembling the SRM into a finished product, testing the system for performance and environmental compliance, and ensuring quality assurance. For the small SRMs, the prime contractor may decide to buy cases instead of producing them, but the general list of characteristics is the same. Table 6 lays out the general industrial capabilities necessary to produce large and small SRMs.

PRODUCTION PROCESSES FOR LARGE AND SMALL SRMS	
SRM Production Process Area	**Process Operations**

Structures	• Case
	  ○ Composite case manufacturing
	  ○ Metal case manufacturing
	  ○ Electron-beam welders
	  ○ Ovens and autoclaves
	  ○ Insulation manufacture, assembly and cure
	• Nozzle
	  ○ Nozzle ablatives manufacturing
	• Nose fairing

Propellant Mix	• Propellant mixing • Oxidizer grinding • Fuels dispensing • Sampling
Propellant Cast/Cure	• Installing SRM case in casting pit • Evacuating pit • Positioning propellant mix bowl • Pouring propellant • Vacuum casting propellant • Curing SRMs in pit
Inspection	• Non-Destructive Inspection for bond line & propellant anomalies • Ultrasonic • X-ray • High energy computed tomography (HECT)
Final Assembly	• Assembly, integration and testing • Final assembly and check-out
Test	• Static test firings • Environmental test

Table 6

Large SRMs

The large solid rocket motor manufacturing facilities in the United States are located at ATK (Bacchus/Promontory, Utah) and Aerojet (Sacramento, CA). This number is down from two decades ago when there were five major vendors. The Department anticipated the downsizing of the industry. Studies ten years ago concluded that there was extensive overcapacity in the industry and some downsizing was necessary, inevitable and probably desirable. The studies also anticipated that a robust commercial space market was in the offing (the private communications market was on a fast growth curve at the time) and that SRM demand for satellite launch would compensate for the reduction in military orders. However, this scenario did not materialize. Additionally, strong foreign competition emerged limiting the commercial opportunities for U.S. companies. The distinguishing characteristics that separate the large SRMs from the small SRMs in large part are associated with the added complexity of size.

Small SRMs

The small SRM manufacturing facilities in the United States are located at ATK (Elkton, MD, and Naval Industrial Reserve Ordnance Plant (NIROP) Allegany Ballistics Laboratory (ABL) in Rocket City, WV) and Aerojet (Camden, AR).

Minuteman III Unique Industrial Capabilities

The MM III SRM is based on designs developed beginning in the 1950s with various modifications resulting in the original production buy ending in the late 1970s. The MM III production historic profile is given in Figure 20.

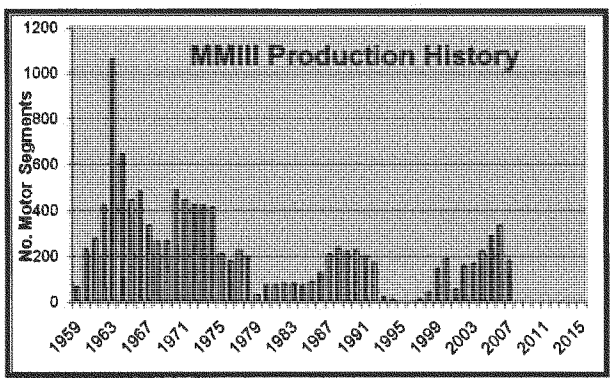


Figure 20

MM III SRMs have many unique characteristics, manufacturing skills and processes, and subtier suppliers that are not supported by other SRM programs. According to the SRM prime contractor, the MM III, D-5, and Shuttle RSRM share approximately 25 percent of their respective supplier bases. The Shuttle RSRM has man-rated requirements and is a reusable system resulting in little to no commonality with the manufacturing and processing systems used in the MM III. The Trident D-5 has a more energetic propellant than the MM III due to the low volume constraints for each SRM which drive significant differences in all manufacturing processes. In addition, the D-5 and commercial market systems use modern state-of-the-art designs with more automated processes making them vastly different from the MM III process and design.

Immediately following the conclusion of repouring MM III stages 2 & 3 in the early 1990's, the Air Force elected to undertake an RDT&E program to address age related degradation and take advantage of evolving technology opportunities rather than immediately return to repouring the stages. The RDT&E program was complex as the contractor was working with a 50-year old design. Specifically, the RDT&E effort was established to address the following issues:

1) Eliminate environmentally prohibited materials (asbestos and Freon);
2) Qualify replacement materials (combination of design changes and manufacturing sources);
3) Incorporate current technologies (transducers, pressure switches, casting, etc.).

The RDT&E effort was a $328M four year program, followed by low rate initial production beginning in FY99. Full-rate production for the Propulsion Replacement Program (PRP) began in 2001. The MM III PRP program comes to an end in FY 2009.

The MM III SRM stages possess unique design and processing characteristics. These 50 year old designs were reproducible only after seven years of development work to recreate the knowledge base necessary for production. Technical understanding of these systems again will decay upon completion of the MM III PRP. Many of the current components may not be reproducible due to obsolescence, and the design expertise necessary to evaluate new material qualification requirements may not be available.

Trident II D-5 Unique Industrial Capabilities

The D-5 is the latest in a line of Navy submarine launched ballistic missiles (SLBMs). Figure 21 shows the different generations of Navy booster systems: Polaris (A3), Poseidon (C3), Trident I (C4) and Trident II (D-5). SLBMs have been in continuous production at ATK (Bacchus/Promontory, UT) since the 1960s with the exception of the A3 First Stage (manufactured at Aerojet/Sacramento). The Navy accomplished this through a well planned and executed series of overlapping development and production programs that combined the latest technological advances with a solid track record of operational success. In this way obsolescence and significant service life issues were minimized. The Trident II D-5 SRM is nearing the end of its design life of twenty-five years on early production missiles that began in 1987. The D-5 Life Extension Program was instituted to address this issue, as well as other missile component life issues.

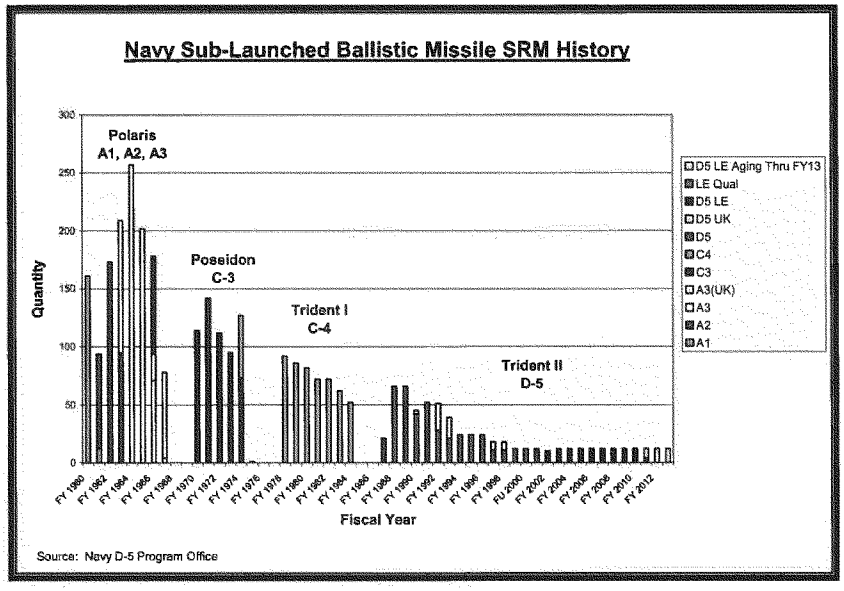


Figure 21

Like the MM III, the D-5 has unique SRM industrial capabilities and characteristics not supported by any other program. The specific requirements for submarine operations drive the need for many of these unique capabilities and skills. The solid propellant must meet high safety criteria because the submarine is a manned platform. The D-5 propellant is a nitrate ester polyether (NEPE) formulation. The D-5 requires this formulation for its high energy and high strain characteristics. The NEPE propellant requires unique manufacturing skills and facilities that are resident at the Bacchus facility.

SRM Industrial Risk Areas

Engineering/Workforce

Declining markets for the development and production of SRM programs will have a negative impact on the SRM industry's ability to maintain design engineering teams and production processes necessary to support current and future SRM requirements. While ATK and Aerojet currently are able to sustain their workforce, both

expressed deep concern with their ability to retain and attract the engineering, design, and labor workforce necessary to design, develop, and produce our next generation SRMs with the forecast of so few new SRM programs. Both have an aging workforce. While the total numbers for each company are different as ATK is substantially larger, both face the same "graying of the workforce" issue. This issue challenges the SRM industry with bringing in new talent as the market declines. The aging workforce issue is prevalent in both the engineering and the manufacturing skill sets.

As noted earlier in this report, there are many specialized and unique skill sets and production processes needed for SRM design, analysis, development and manufacturing. These technical skills can be skills needed for day-to-day sustainment of a deployed system; for solving technical problems that surface in an existing system; for modifying a system to extend its life or enhance its capability; or for designing, analyzing and developing a new system. These skills are not easily acquired. ATK experts believe that it takes up to five years to create a skilled SRM engineer and production worker.

The SRM industry is facing a severe "graying of the workforce" challenge as the average age of its engineering and manufacturing workforce is about 50 years old which could result in a large number of people choosing to retire in a short period of time. This will result in the loss of critical engineering and production skills as there is a limited talent pipeline to replace them. Even if there was sufficient talent in the pipeline, there are no new development programs to train and educate the next generation designers, engineers, and technical manufacturers.

Underutilized SRM facilities

The SRM industry has seen a significant consolidation over the last twenty years in terms of the number of companies now developing and producing SRMs. However, this has not resulted in an equivalent amount of reduction in the number of facilities. ATK acquired Thiokol which had 3 facilities that produced SRMs (Promontory, Elkton, and Huntsville) and Hercules which also had 3 facilities (Bacchus, ABL, and McGregor). Of those six facilities, four remain in production today with only the Huntsville and McGregor facilities being shutdown. Aerojet which had the Sacramento facility acquired ARC with its 3 facilities (Camden, Gainesville, and Orange County). All are still functioning with the Gainesville facility used primarily as an engineering complex for its smaller SRMs. United Technologies Chemical Systems Division's (CSD) Coyote facility closed after the two explosions in 2003. Therefore, eight SRM development and production facilities remain from an original eleven. Aerojet and ATK have taken steps to consolidate functions at their facilities to reduce duplication. While both Aerojet and ATK are actively consolidating operations within their facilities, it is not enough to maintain efficient utilization rates at their operating sites.

Time to Restart SRM Production

Restarting production operations for SRMs takes a significant amount of time and money. Once a program is shut down, even if the tooling is mothballed and the engineering and production processes are documented, a company cannot easily replace the in-depth process knowledge that is lost. Prime contractor experience indicates that from a warm base it typically takes 3-5 years to restart SRM production including subtier suppliers. If the Department needs to restart a program from a cold base, the time to reconstitute is estimated to be 6-8 years, if feasible at all.

As stated earlier, the MM III SRM took about seven years to get to full-rate production following a 20 year production gap for stage 1 and 1 and 3 years respectively for stages 2 and 3. ATK had warm production facilities from commercial launch platforms and the D-5 production. A significant part of the long restart time was due to the fact that the MM III stage 1 motor had not been produced for over two decades requiring significant development work to recreate the production processes knowledge base and subtier supplier management to requalify suppliers. The extended length of time between productions also required a large number of static tests.

When the Navy needed to restart the A3R SRM, the effort took six years to complete the necessary requalification. The A3 production had been out of production for more than 10 years which left three significant hurdles to overcome: material obsolescence, lost suppliers, and limited previous production process knowledge base. The material obsolescence problem occurred because many materials either were no longer available or in some cases could not be used due to stringent environmental laws. The A3 encountered subtier supplier issues because several suppliers no longer produced the necessary item or had gone out of business both of which required a substantial requalification effort. The A3 restart took six years despite the fact that the contractor was working from a warm base with an existing subtier supplier base. At the time, the Navy was still acquiring the Trident I C-4 program and the Trident II D-5 program was in development.

Government Regulations

The prime contractors developing and producing SRMs must comply with many different government regulations. Most of these regulations are derived from laws associated with the environment. The environmental laws that affect the SRM industry are:

- Resource Conservation and Recovery Act (RCRA): RCRA is a federal law that gives the Environmental Protection Agency (EPA) the authority to control hazardous waste generation, transportation, treatment, storage, and disposal.
- Clean Air Act (CAA): CAA is a federal law that provides the EPA with broad authority to implement and enforce regulations reducing air pollutant emissions.

- Clean Water Act (CWA): CWA is a federal law that protects the surface water quality in the United States. The law employs a variety of regulatory and nonregulatory tools to sharply reduce direct pollutant discharges into waterways.
- Emergency Planning and Community Right-to-Know Act (EPCRA): EPCRA established a national framework for EPA to mobilize local government officials, businesses, and other citizens to plan ahead for chemical accidents in their communities. EPCRA requires that facilities immediately report to appropriate state, local, and federal officials a sudden release of any hazardous substance that exceeds the reportable quantity.
- Toxic Substance Control Act (TSCA): TSCA is a federal law that provides EPA with the authority to require reporting, record-keeping and testing requirements, and restrictions relating to chemical substances and/or mixtures.
- Safe Drinking Water Act (SDWA): SDWA is the federal law that ensures the quality of American's drinking water. Under SDWA, EPA sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards.
- Comprehensive Environmental Response, Compensation and Liability Act (CERCLA): CERCLA, commonly know as Superfund, is a federal law that provided broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment.

Compliance with these environmental laws requires the prime contractor to obtain permits that in some cases must be renewed (most renewals are required every 2 – 5 years) and might require periodic reporting (usual reporting periods vary from annual to every 3 years). Permit renewal is part of the business and usually is comprised of a lengthy and on-going process – even for active operations.

SRM prime contractors and their subtier suppliers face a significant restart risk if development or production operations cease due to gaps caused by cancelled or completed programs. Once development or production operations halt, the associated permits are ended. This is not a problem in some cases because there is little risk of reinstating a permit. However, there could be substantial cost and schedule risk associated with trying to reinstate some permits because permit reapplication may be a multi-year process and the governing body may not be willing to reinstate the permit at the previous level if at all. For instance, ATK explained that it would be highly unlikely for the State of Utah to re-permit open burning activities at current levels which is covered under the RCRA. These activities are necessary for static testing of development and production SRMs.

In summary, the prime contractors allocate substantial resources to maintain their environmental permits. If there are gaps in development or production operations, the contractors permits would lapse and it may be difficult to restart operations because they may not be able to get approval to reinstate the permits to support new contracts.

Subtier Level

The SRM industrial base has been evaluated several times over the past 10 years as mentioned earlier. All successive findings indicate that there is not enough business to sustain two large producers and their subtier suppliers. There is not adequate demand to allow the producers and their suppliers to have a consistent and favorable return on their investments. As a result, when there is a fluctuation in the demand there is a corresponding ripple effect through the supply chain. In many cases, the industrial problem areas are not at the SRM prime level but at the subtier supplier level.

In many defense sectors, the demand for industrial capabilities is supported not only by the defense market but also by the commercial market. Generally, the more commercial the sector, the less dependent the sector is on defense. There is no commercial market for missiles of any size and while there is a limited market for commercial space launch vehicles, foreign competitors dominate that business. This predominantly puts the sustainability burden of the SRM industrial sector on government space launch and defense SRM requirements at a time when both are declining. This scenario presents many challenges not only to the SRM prime contractors but also to the SRM subtier suppliers. Challenges include:

- Maintaining qualified sources
  - Industry is constantly facing the loss of sub-tier suppliers
    - Exits from the industry are often unanticipated by the higher tiers
    - Suppliers are one program cancellation or one catastrophe away from closing business lines
  - Qualification of a new supplier or production process takes time and money
  - Many subtier suppliers are either sole or single sources
  - Many subtier suppliers are foreign owned
- Keeping skilled labor current
- Preserving the production processes
- Surviving downturns in demand and SRM production
  - Sub-tiers are equally affected by the lack of new programs and the decline in current requirements as the SRM prime contractors
- Right-sizing facilities for the market
- Meeting delivery schedules

With all these challenges, the subtier suppliers and niche providers may opt to exit the SRM business with little or no warning rather than support an unprofitable business line. The blue box on the next page titled, "Low Level Subtier Supplier – Big Impact," describes how significant an SRM single or sole source supplier decision to exit the market can be to the industry. If the example supplier had exited the market, 43 programs would have been affected which would have required all the programs to qualify another source. And due to the nature of the SRM business, each system would

have required its own requalification which would have accounted for possibly hundreds of millions of dollars and years of schedule delays.

Low Level Subtier Supplier—Big Impact

During a 2005 Missile Defense Agency (MDA) solid rocket motor (SRM) industrial assessment, Sartomer Company, Inc. informed the Department that it may be forced to leave the SRM business as early as the end of calendar year 2006. Sartomer, a sole source domestic producer, supplies the entire hydroxyl-terminated polybutadiene (HTPB) polymer used by DoD, NASA, and commercial space for solid rocket motor propellant and munitions. Sartomer produces two basic formulations of the HTPB; the HTLO product that is predominantly commercial and the R45M that is defense unique. Both are used in DoD solid rocket motors. Sartomer's production facility in Channelview, TX, needed between $7-15 million in capital investments to meet emerging Environmental Protection Agency requirements and make efficiency improvements. There were no additional domestic providers of this product.

Initially, Sartomer's parent company, Total, based in France, decided not to fund the required improvements due primarily to low profitability and their option to meet their commercial customers' needs from their foreign production sites. However, under current practices and procedures, the DoD/NASA programs using this product would be required to requalify the manufacturing processes of another source. Hence, if there were a change in the supplier for HTPB, those programs affected would incur substantial requalification costs and schedule delays.

The Department's practice is to only take action to maintain an industrial capability if the time or cost to regenerate that capability, once lost, would prohibit the Department from meeting its mission needs. The Department performed an assessment and determined that if Sartomer left the business, the impacts could have exceeded $100 million in costs and 18 months to several years in schedule delays.

The Department's SRM Task Force formed in 2006 reviewed the Sartomer issue and explored several options from doing nothing to finding ways for the Department to fund the required improvements to the Sartomer facility.

Before the Department decided on the way forward, Sartomer convinced its parent company to make the necessary investments and the Department was not forced to take any remediation actions. This example helps to emphasize the Department's position to encourage its prime contractors to resolve industrial capabilities issues.

The Department expects the system prime contractors to identify any industrial issues and then implement remedies to resolve them. Alternative means of obtaining supplies generally are not considered until all the prime contractor efforts have been explored or there is a crisis, i.e., a sole supplier announces his exit or reliance on an unreliable foreign supplier is unavoidable.

The SRM primes have identified a few subtier suppliers or materials they consider risk areas. Three of these risk areas are ingredients for the SRM booster. American Pacific is a sole source supplier that provides ammonium perchlorate (AP) for all government needs. Sartomer provides the HTPB binder discussed in the previous blue box. Copperhead Chemical provides Butanetriol Trinitrate (BTTN). The BTTN issue is discussed in the next blue box.

Limited Global Suppliers for Niche Products

Copperhead Chemical Company, located in Tamaqua, PA, is currently the only qualified source for Butanetriol Trinitrate (BTTN), a nitrate ester/plasticizer (part of the binder) used in the production of rocket motors for the Army's Hellfire, TOW-2, and Javelin missile systems. Butanetriol (BT) which is identified on the U.S. Munitions List (USML), is a chemical precursor needed by Copperhead to produce BTTN. Copperhead's previous BT source, Cytec Industries, discontinued production of the chemical in 2004. At that time, Copperhead acquired the remaining Cytec BT inventory and began looking for another supplier.

In 2007, the Army joined Copperhead in searching the globe for sources of BT. Only one source was identified that could produce at the quantities and quality required, Shanghai Fuda Fine Chemicals located in China. Section 1211 of the National Defense Authorization Act of 2006 has a prohibition on buying items listed on the USML from Communist Chinese military companies. Because Shanghai Fuda Fine is part of the defense industrial base of the People's Republic of China, it is a prohibited source.

The Secretary of the Army approved a waiver in November 2008 to allow the Army to buy BT from China on a one time basis. The Department is currently determining if additional waivers may be required because the International Traffic in Arms Regulation legislation states the Department cannot sell or buy items on the USML from specified countries and embargoed nations, including China.

The Indian Head Division, Naval Surface Warfare Center, has the remaining inventory of BT available for the production of BTTN. They originally acquired 20,000 pounds of BT for a program that was later canceled. Copperhead procured 10,000 pounds of Indian Head's BT in 2007. The Indian Head approved the Army request for the remaining 10,000 pounds from Indian Head which could sustain the Department's needs to March 2010.

The Army is working to develop a domestic source for BT. At this time, there are three organizations working to establish the capability to produce BT – ATK- Radford Army Ammunition Plant; Afid Therapeutics; and BAE-Holston Army Ammunition Plant – that could be used by Copperhead to produce BTTN.

If any of these suppliers left the market, the Department would face significant development and requalification costs. At this time, the AP and HTPB binder issues appear to be under control. The Department is carefully working through the issues associated with BTTN. Another risk area is for a rayon precursor material that does not have a supplier. The rayon precursor material was last produced by the North American Rayon Corporation (NARC) in 1997. The industry has been using a stockpile that is expected to run out around 2011. The SRM prime contractors, the Department and NASA are all working to qualify another source of material to fill the void. Rayon alternatives include C2 rayon prepreg manufactured by SNECMA Moteurs of France. This material has been qualified and flown on the Arianne V. Enka produces a textile rayon, similar to NARC, in Germany that has been qualified by the Shuttle program and also for the first, second and third stages of the D-5. The qualification of Enka, however, is for limited use in the exit cone region, not the throat area of the nozzles. The shuttle program is still using NARC for the throat material. MDA is currently qualifying Enka rayon for use on stages 1,2, and 3 of the Orion SRM used for the GMD program. MDA also is evaluating Lyocell which is manufactured by Lenzing.

In many cases, the subtier suppliers for the large and small SRM industries are the same. This is mostly a result of single sources at the materials level. For the most part, the subtier suppliers are able to provide the materials and produce the components needed by the SRM prime contractors. However, if the market continues

to decline, the Department and SRM prime contractors can expect to see subtier suppliers choose to exit the SRM business.

SRM Issues/Concerns

As this report has pointed out, the Department, NASA, and the SRM industry are facing many challenges. Some of these challenges and issues are:

Limited Competitive Opportunities: The SRM industry has very few new competitive opportunities on the horizon. With the exception of the JAGM program, the only possible new program being forecast in the Department will be the DoD-wide CPGS concept demonstrator. The only other competitive opportunity is the Ullage Setting Motor on the NASA Ares I program. All other Ares SRMs have been competed and selected.

No Forecast for Future Systems: The Department does not forecast any new replacement for the MM III or D-5 for years. Without the forecast of future programs, SRM primes do not have the ability to retain or attract the high caliber designers, engineers, or labor workforce needed to design and produce DoD future systems.

Findings

- Both ATK and Aerojet have sufficient capacity, equipment, and expertise to compete for new programs in all business segments.
- The production demand for SRMs is declining:
  - The production demand for large SRMs (space launch, strategic missiles, and some missile defense programs) is significantly lower than historic levels primarily due to the completion of the NASA shuttle program, lower strategic requirements, the completion of the MM III PRP and the expectation of a commercial space launch market that never materialized.
  - The demand for missile defense programs is declining roughly 30 percent over the FYDP.
  - The limited commercial space launch business has strong competition from foreign suppliers.
- There are very few DoD opportunities on the horizon for SRM primes to compete for new systems – only the JAGM and the DoD-wide CPGS in the near term.

- There are no plans for a new strategic missile development as the expected operational lives of the MM III has been extended through 2030 and the Trident II D-5 to 2042.
- DoD funding levels for SRM S&T and R&D are declining significantly over the FYDP – 35 percent.
- Consolidation has occurred in terms of the number of prime contractors (five to two), but the actual rationalization of facilities has been limited affecting utilization rates at remaining facilities (11 facilities to 8 facilities remaining).
- In the large SRM sector, NASA programs (the Shuttle and the Ares) are still the key contributors to the viability of the SRM industrial base – prime and subtier.
- Large SRM facilities are experiencing low capacity utilization rates with little near-term projected demand to improve the current situation.
- There are a number of single and sole source suppliers in the SRM subtier sector.
- The SRM prime contractors have an aging workforce with the average age of both the production workers and the engineers around 50 years old.
- Firms at the prime and subtier levels express difficulty retaining skilled staff given low level of business demand.
- Two SRM materials are only available in rapidly dwindling inventories – BT and rayon precursor.

Conclusions

- The SRM industrial base – both prime and subtier suppliers –is capable of meeting most technological and production requirements.
- Inadequate investments are being made in SRM research and development, reducing the reliability and cost effectiveness of the SRM industrial base. If there are no new development programs, the SRM industry will continue to lose its capability to be able to design and produce new generation SRMs.
- The lack of meaningful production orders and limited development efforts for the next decade is not conducive to the long term well-being of the industry. The SRM industry needs deliberate government research & development (R&D) and production investments with corporate entities willing to invest in internal independent research and development (IRAD) to ensure the continued viability of the industrial base for the Department's current and future systems.

- The tactical and missile defense business segments, which generally use smaller SRMs, are positioned better to maintain their industrial capabilities in the near-term than the strategic and space launch business segments, which generally use large SRMs, because smaller SRMs are supported by multiple programs with more overall funding certainty than larger SRM programs.

- The limited competitive opportunities for SRM activities will make it hard for prime contractors to attract and retain a skilled engineering and manufacturing workforce which in turn will make it difficult to retain the design and engineering expertise necessary to develop and produce our next generation large and small SRMs.

- Delays in the NASA Ares program could have significant negative impact on the large SRM prime contractor industrial base and on some of the SRM subtier base, specifically material suppliers.

- While there has been consolidation at the prime contractor level, the low projected demand for large SRMs may cause ATK to consider rationalizing its large SRM facilities at Promontory and Bacchus to one for more efficient operations. A worst-case scenario from a competition standpoint would be further consolidation in the base reducing the number of primes from two to one. Where possible, government should coordinate its SRM activities to develop strategies that maintain competition.

- For Aerojet and subtier companies, liquid and non-rocket businesses help to keep SRM engineers engaged and absorb overhead costs.

- Foreign military sales (FMS) have had a positive impact on small SRM workload in the industry due to requests for tactical and missile defense weapon systems. However, FMS orders are not predictable and should not be expected to sustain the SRM industrial capabilities.

- Adherence to government environmental regulation, both domestic and foreign, has an adverse impact on the viability of the supplier base.

Report to Congress on the Solid Rocket Motor Industrial Base Sustainment and Implementation Plan
Redacted Version

Under Secretary of Defense for Acquisition, Technology and Logistics
3020 Defense Pentagon
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Solid Rocket Motor (SRM) Sustainment Plan

The Department of Defense (DoD) is providing this SRM sustainment plan to the congressional defense committees as directed in section 1078 of the National Defense Authorization Act, Public Law 111-84, dated October 28, 2009. This sustainment plan also documents the Department's implementation of the sustainment plan as directed by section 916 of the National Defense Authorization Act, Public Law 111-383, dated January 7, 2011.

The Department's primary objectives for the SRM Industrial Base Sustainment Plan are to: (1) sustain production capabilities for national assets; (2) keep critical design teams in place for future system needs; and (3) to the extent practical, preserve the option to satisfy new government demand in the future. For the purpose of this study, the DoD used pounds of propellant as an indicator of overall SRM industrial base viability. After careful analysis, the DoD concluded that it can achieve its sustainment goals through a combination of initiatives. The Department needs industry's cooperation to make the effort affordable: industry must first take the lead by "right-sizing" its excess capacity to align with projected demand. The DoD will then invest in SRM science and technology (S&T) and research and development (R&D) along with procurements each year of systems that will sustain the base.

The Department identified the resources within the DoD budget that implement the Department's Sustainment Plan for the SRM industrial base. The Defense budget includes funding for SRM S&T activities, the Air Force R&D Propulsion Application Program, and R&D funding for four defense missiles that are developing new SRMs or are modernizing older SRMs over the FYDP. The budget includes funding for the production of the Trident II D5 SRM motor sets and missile defense and tactical missile programs that contribute to sustaining the SRM industrial base. The budget also includes funding for EELV strap-on SRMs that helps stabilize the large SRM industrial base by purchasing a planned number of boosters each year. The SRM funding portion of the missile defense and tactical missile programs generally ranges between three to twenty percent of the acquisition cost of a missile program.

The DoD needs to sustain the SRM industry because the United States will continue to rely on SRMs over the long term. Large SRMs (40- to 92-inch diameter) propel all of DoD's strategic missiles. Solid rockets are by far the best technology for strategic systems because they offer rapid employment capability, long-term storability, and maximum safety. The recent Nuclear Posture Review described the Department's plan to preserve its strategic systems through the foreseeable future, thus reinforces the need to retain a SRM capability. The Department also uses SRMs for space launch, tactical missiles, and missile defense. Many of these uses require SRMs for the same reasons that strategic weapons require them. The sustainment plan takes advantage of these additional sources of demand to contribute to economic production levels and to hone design teams' technical capabilities.

The Department delivered an interim report in June of 2010 that provided the summary of the significant SRM market decline and discussed the DoD's activities and efforts to develop the SRM industrial base sustainment plan. Last year, the Department established an Interagency Task Force – with members from all the Military Services, Defense Agencies and NASA. The task force identified critical technical and production capabilities across a disparate DoD and NASA enterprise and determined whether the current and projected large-SRM requirements are

sufficient to provide an adequate economic base to support those capabilities without intervention, then evaluated alternative business models that may better sustain the industry in the future.

Based on the analysis and findings of the Interagency Task Force, the DoD concludes:

(1) The Department must preserve the scientific, engineering and design skills and production capabilities necessary to support both large- and small-SRMs. The DoD cannot allow the SRM industrial base to shut down until DoD determines its next generation requirements because the potential expense and schedule delays of restarting the industry would be too great. The SRM production capabilities are needed to support the MM III through 2030 and the D5 through 2042.
(2) The Department relies on SRMs to meet many of its national security requirements. Specifically, the DoD must have large SRMs for propulsion of strategic missiles, as well as for heavy space launch applications, which are vital to its national security strategic deterrence mission.
(3) Industry must better align its capacity with the Department's current and future large-SRM market demand.
(4) The Military Services and Defense Agencies need to better define future needs for SRMs beyond the FYDP, at least through 2030, and then communicate those needs to the supplier base. The Office of the Secretary of Defense (OSD) needs to work across program and Service/Agency lines and remain involved in the deliberate management of this vital industrial sector.
(5) Production activities alone will not be sufficient to protect and/or restore critical technical and creative skills necessary for future missile development and current missile sustainment, regardless of what company or what facility executes the production. Research and development programs, such as the Air Force ICBM Demonstration and Validation program, are required to preserve SRM science and technology, engineering and design teams and their critical skills.
(6) The most efficient business model for the large-SRM industry is competition with continued rationalization. The upfront requalification and facilitization costs associated with natural monopoly or a government-owned/contractor-operated model are prohibitive.

While most of the Department's conclusions are directed at the large-SRM industrial base, production of smaller SRMs (less than 40-inch diameter) that are used in missile defense and tactical missile systems can also help sustain some parts of the industrial base. Overall, small- and large-SRM capabilities are not interchangeable. In most cases, large SRMs have size-driven production requirements for ingredient-handling equipment, mixers, casting pits, cranes, and testing fixtures. It may take several large mixing bowls to cast a single large SRM, adding significant complexity to the mixing, pouring, and casting processes. Smaller SRMs, on the other hand, use a common infrastructure that includes commercial handling equipment, cranes, and machining equipment. A single mixing bowl will pour many small SRMs. Furthermore, the design requirements for large and small SRMs also differ, in part because the longer burn times for the larger SRMs limit the materials that can be used. Large SRMs also need particular structural elements to manage vibration and stresses during the launch and boost phases.

Because of these different characteristics in design and production, small SRM demand, which has increased recently and will increase still further in the near-term program of record, will contribute to sustaining the SRM industrial base mostly at the subtier supplier level. Specifically, planned small SRM programs will purchase more than one million pounds of propellant per year.

OSD will continue its efforts with the Services and Defense Agencies to select an appropriate mix of SRM investments that will sustain the SRM industrial base. The DoD also will continue efforts to coordinate investment decisions with NASA to ensure that SRM industrial base sustainment is considered as part of all relevant programmatic decisions and will continue the SRM Inter-Agency Task Force activities: monitoring the SRM industrial base, identifying capability issues at the prime- and subtier- supplier levels, and jointly addressing mitigation options.

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