

**WASTE, FRAUD, COST OVERRUNS, AND
AUDITING AT THE PENTAGON**

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WEDNESDAY, MAY 12, 2021

U.S. SENATE,
COMMITTEE ON THE BUDGET,
Washington, D.C.

The Committee met, pursuant to notice, at 11:01 a.m., via Webex and in Room SD-608, Dirksen Senate Office Building, Honorable Bernard Sanders, Chairman of the Committee, presiding.

Present: Senators Sanders, Kaine, Van Hollen, Padilla, Graham, Grassley, and Crapo.

Staff Present: Warren Gunnels, Majority Staff Director; Nick Myers, Republican Staff Director; Ethan Rosenkranz, Majority Senior Budget Analyst for National Defense; and Derek Gondek, Republican Professional Staff Member.

OPENING STATEMENT OF CHAIRMAN BERNARD SANDERS

Chairman SANDERS. Good morning, and let me thank Ranking Member Graham and our colleagues on the Committee and our witnesses for being with us this morning.

It is no secret that as a Nation we face enormous needs. Over 90 million Americans today are uninsured or underinsured. Almost 600,000 Americans are homeless. Our child care system is dysfunctional, and we have one of the highest rates of childhood poverty of any major country on Earth. And I think we are all in agreement that our roads and our bridges and our infrastructure are in terrible shape. And in my view, we face the existential threat of addressing climate change, which could wreak havoc on our country and the world.

In other words, there is an enormous amount of work that has to be done, and much of that work will be very expensive. For that reason, we as Members of Congress have the responsibility to make sure that our taxpayer dollars are spent wisely and that they are spent cost-effectively, and that is true whether the issue is health care or education or anything else.

It is certainly true when it comes to the Department of Defense (DOD), an agency with a budget of \$740 billion, by far the largest spending category in our discretionary budget, consuming more than half of all discretionary spending.

In my view, the time is long overdue for us to take a hard look at the enormous amount of waste, at the cost overruns, at the fraud, and at the financial mismanagement that has plagued the Department of Defense and the military-industrial complex for decades. And today that is exactly what we will be doing.

At a time when we have so many unmet needs in America, we have got to ask ourselves why we are spending more on the military than the next 12 nations combined. Why is it that the United States of America is now spending more on the military in real inflationary-adjusted dollars than we did during the height of the Cold War or during the wars in Vietnam and Korea? Why is it that the Pentagon remains the only agency in the Federal Government that cannot pass an independent audit, 30 years after Congress required it to do so? How does it happen that about half of the \$740 billion annual defense budget goes not to our troops—many people think that it does, but it does not—but to defense contractors while virtually all of them have paid huge fines for misconduct and fraud while making massive profits on those contracts? As it happens, since 1995, Boeing, Lockheed Martin, and Raytheon have paid over \$5.4 billion in fines or related settlements for fraud or misconduct.

Further, I find it interesting that, despite the fact that the lion's share of revenue for some of the defense contractors comes from the taxpayers of the United States, these same companies provide their CEOs and executives excessive and extremely large compensation packages. Last year, Lockheed Martin paid its CEO over \$23 million while 95 percent of its revenue came from defense contracts. Raytheon paid its CEO \$19.4 million while 94 percent of its revenue came from defense contracts. Boeing paid its CEO \$21 million while 45 percent of its revenue came from defense contracts. In other words, these companies for all intents and purposes almost function as Government agencies, the vast majority of their revenue coming from the public, and yet their CEOs make over 100 times more than the Secretary of Defense of the United States of America.

And I think one of the issues that we have to also take a look at is the whole question of the revolving door where many of our top military officials end up on the boards of directors of these major defense companies.

Senator Grassley and I sent a letter to all three of these CEOs asking them to testify this morning. All of them declined to come.

Further, as the General Accountability Office (GAO) has told us, there are massive cost overruns. This is a huge issue unto itself: cost overruns at the DOD acquisition budget that we have got to look at. According to the GAO, the Pentagon's \$1.8 trillion acquisition portfolio currently suffers from more than \$628 billion in cost overruns, with much of the cost growth taking place after production. GAO tells us, and I quote, "Many DOD programs fall short of cost, schedule, and performance expectations, meaning DOD pays more than anticipated, can buy less than expected, and in some cases deliver less capability to the warfighter."

That has got to change, and let us be clear. As I stated earlier, a major reason why there is so much waste, fraud, and abuse at the Pentagon is the fact that the Defense Department remains the only Federal agency that has not been able to pass an independent audit 30 years after Congress required it to do so.

I think it is extremely important—and I do not know how familiar you may be with this quote. I have to admit that Donald Rumsfeld, Bush's Secretary of Defense, was not a hero of mine. But 1 day before 9/11—I do not know if you are familiar with this—he

made some remarks, and this is what he said, and it did not get a lot of attention, obviously, because 9/11 came the next day. But this is what he said on September 10, 2001, and I quote, this is from Donald Rumsfeld: “Our”—meaning the Pentagon’s—“financial systems are decades old. According to some estimates, we cannot track \$2.3 trillion in transactions. We cannot share information from floor to floor in this building”—the Pentagon—“because it is stored on dozens of technological systems that are inaccessible or incompatible.”

And yet 20 years after Rumsfeld’s statement, I wonder if the situation is any better today when the Pentagon has now received three failing audit opinions in a row.

In 2011, the Commission on Wartime Contracting in Iraq and Afghanistan concluded that \$31 to \$60 billion spent in Iraq and Afghanistan had been lost to fraud and waste, and so forth and so on. In my view, it is time to hold the DOD to the same level of accountability as the rest of Government.

And let me conclude by saying this: I think everybody in this Congress and in this Committee understands that we need a strong defense and that the men and women in the military and their families must be treated with the respect that they are due. But we do not need a defense budget that is bloated, that is wasteful, and that has in too many cases massive fraud.

I hope that all of my colleagues remember what former President Dwight D. Eisenhower, a good Republican, said as he left office in 1961, and I quote: “In the councils of government, we must guard against the acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex. The potential for the disastrous rise of misplaced power exists and will persist.” And in an earlier speech, Eisenhower, remember, a four-star general who led the effort in Europe in World War II, this is what he said: “Every gun that is made, every warship launched, every rocket signifies in the final sense a theft from those who hunger and are not fed, those who are cold and are not clothed. This world in arms is not spending money alone. It is spending the sweat of its laborers, the genius of its scientists, the hopes of its children. This is not a way of life at all in any true sense under the cloud of threatening war. It is humanity hanging from a cross of iron.”

What Eisenhower said was true then, and it is true today.

Let me now turn the microphone over to the Ranking Member, Lindsey Graham, for his opening remarks.

OPENING STATEMENT OF SENATOR LINDSEY GRAHAM

Senator GRAHAM. Well, thank you, Mr. Chairman. I have really enjoyed the hearings we have had. I think you raise questions that the country needs to grapple with, so let me give you my view of things.

I think Senator McCain, who both of us admired, was a big proponent of trying to make procurement more transparent, and cost-plus contracting really incentivizes spending more. The big problem I have seen with weapons system development is change orders. They will ask that the weapons system do things down the road they were not designed to do early on. And sometimes that is due to the threat we face from enemies. We have to adjust our new sys-

tems to counter their new systems. But count me in for looking at procurement reform and giving the Pentagon a good once-over in terms of its modernization of its computer systems and contractors and all that good stuff.

But what I want to do is remind the American public that the number one goal, in my view, of the Federal Government is to protect us. Without national security, Social Security and every other social network hangs in the balance. There are people out there that would destroy our way of life if they could, and we need to make sure they cannot do that. So let us talk about defense spending in historical terms.

First, let us talk about threats. Now, this is since April. We have had Russian bombers test us since March of 2021 in Alaska at historic levels. We had 25 Chinese war planes enter into Taiwan's defenses in April of 2021, a major escalation. There are 80,000 Russian troops amassed on the Ukrainian border. There were 100,000. They say they have withdrawn. They have gone from 100 to 80. From Somalia to Mali, Nigeria, and Mozambique, ISIS in that part of the world is on the rise. We just had over 80 people killed at a school in Kabul because radical Islamic terrorists are trying to destroy all the gains we have made for women in Afghanistan. North Korea just fired two short-range missiles for the first time in more than a year. The Chinese are trying to develop a deep-water blue navy. They are building aircraft carriers, and the Russians are on the prowl, and I fear ISIS and al Qaeda will come roaring back if we do not watch it. I have not mentioned anything about the current conflict between the Palestinians and the Israelis.

So this is a time of great peril. What should we be doing? We should have a defense budget that deters war, and if you enter into one, you win it.

Let us go to the next chart. Last year, the Defense Department produced a 5-year spending plan to keep modernization and replenish the weapons systems that have been worn out since 9/11. Mr. Chairman, our military men and women have been deployed more since 9/11 than any time since World War II. We have flown the wings off the planes. Our equipment has been heavily utilized, and our people have really borne the brunt of this war on terrorism and other conflicts. So they projected in the 5-year plan that we would be spending \$722 billion this year. The Biden budget is 715. My good friend Senator Sanders has an amendment to cut the defense budget by 10 percent. It would put us at \$660 billion, way below the projected defense needs, according to the Pentagon, over the next 5 years.

Now, in terms of gross domestic product (GDP) spending, you spend on the defense what you need to protect the Nation. In World War II, we were up to 41 percent. We had a worldwide war. The world was at risk. Life as we know it was hanging in the balance, so we went all in to win World War II. Everybody did what they had to do.

In Korea, we were 14 percent of GDP on that conflict. During the peak of the Cold War, it was about 10 percent to make sure that the Soviet Union did not gobble up the world and keep communism at bay, and I would say it worked.

Now, from Vietnam up to the end of the Cold War, we were spending about 4.9 percent of GDP. When the Berlin Wall fell, we started coming down. On September 10, 2001, we were at 3.11 percent of GDP, a historical low. The peace dividend did not last very long, did it? The global war on terror, something nobody really thought about, and how do our weapons systems relate to that conflict, we have been at about 4.6 percent. We are withdrawing our forces from Afghanistan. We are going to be at about 3.4 percent going towards 3.3 percent.

So here is what I would say. We are on the low end of defense spending, but we are on the high end of the threat matrix. Personally, I have never seen more capability aimed at the United States than I do right now. You see Iran getting stronger, not weaker, when it comes to their military misadventures. You see them enriching—let us put that up. Iran is enriching at 60 percent. I want to remind you that just a few years ago we went through an event called “sequestration” where we were going to take \$1 trillion out of the defense budget in some budget deal as a punishment for not reaching a budget number.

Sequestration, according to General Mattis, for all the headaches caused by the loss of our troops during these wars, no enemy in the field has done more to harm the readiness of our military than sequestration. Remember the good old days of sequestration? They were horrible days. We were having to cannibalize weapons systems to keep them going. It was a nightmare for the Pentagon. I asked Secretary Panetta, a Democrat, who is a fine man, “If we enact sequestration, would we be shooting ourselves in the foot?” He said, “We would be shooting ourselves in the head.” Sequestration was an effort to just blindly cut \$1 trillion from the Pentagon, and it made us less capable at a time we needed more capability.

So to those who are watching today, half the money we spend virtually is on personnel costs; \$50 billion in the Pentagon goes to health care costs. I think Senator Sanders is right to be asking the Pentagon to be more accountable and transparent. But I think it is a very dangerous idea to suggest that our defense footprint, given the threats we face, needs to be changed in terms of less. I think it needs to be more in terms of capability to deal with the multiple threats we face, but that “more” should be wisely spent.

So this is a great debate we have been having for a long time, but the facts are the facts. Given the world we face, we are on the low end of spending at a time when our enemies are on the high end of misadventure and spending.

The one thing you do not want to do, Mr. Chairman, is have the enemy miscalculate and entice them to make mistakes that could cost us all by not being ready to meet the challenges.

Thank you very much.

Chairman SANDERS. Okay. Thank you, Senator Graham.

We have an excellent panel today. I think we have four panelists who are here; one will be virtually.

Larry Korb is a senior fellow at the Center for American Progress. He formerly served as President Ronald Reagan’s Assistant Secretary of Defense from 1981 to 1985.

Bill Hartung is the director of the Arms and Security Program at the Center for International Policy. He is the author of a number of books.

Mandy Smithberger is the director of the Center for Defense Information at the Project on Government Oversight. She has previously worked in the House of Representatives and served as an analyst at the Defense Intelligence Agency and the U.S. Central Command.

Roger Zakheim is the Washington director at the Ronald Reagan Presidential Foundation and Institute. He previously served as General Counsel and Deputy Staff Director at the House Armed Services Committee as well as Deputy Assistant Secretary of Defense for President George W. Bush.

Lieutenant General Thomas Spoehr is the director of the Center for National Defense at the Heritage Foundation. He previously served in the U.S. Army for 36 years during which he was Commandant of the Army's Chemical, Biological, Radiological, and Nuclear School.

So this is a very strong panel. Let us begin with Larry Korb. Larry?

**STATEMENT OF LAWRENCE J. KORB, PH.D., SENIOR FELLOW,
CENTER FOR AMERICAN PROGRESS**

Mr. KORB. Thank you very much, Mr. Chairman, Senator Graham—

Chairman SANDERS. Larry, talk a little bit closer into the microphone, if you could, please.

Mr. KORB. Thank you very much, Mr. Chairman, Ranking Member Senator Graham. It is really an honor to be here with you to talk about what I think is the more important thing in national defense, which is the budget, because in defense dollars are policy. So I think it is really important.

I would also like to say that it is also an honor to be here with you, Senator Sanders, and Senator Grassley because I cannot think of two members who have worked harder to make sure that every dollar that the Defense Department spends is spent wisely and effectively. And Senator Grassley and I go back to the Reagan administration when we were trying to deal with those things.

Now, I am going to make three points today.

One, the size of the budget that President Biden has proposed I think is too much.

Number two, there are at least three major programs that I think can be cut back, if not eliminated.

And then, finally, the whole question of waste in the Pentagon itself.

Let me begin with President Biden has proposed a budget for fiscal year 2022 which is essentially the same as the Trump budget and basically calls for spending more than \$750 billion on defense.

Now, it is important to keep in mind that under the Trump administration, the defense budget rose by \$100 billion, and President Trump basically said that that was necessary because of the terrible state of the military he inherited. But that is not true. If you go back to the fall of 2016 and read the writings of individuals like General David Petraeus, who I think we all know, along with

Mike O'Hanlon, a distinguished defense scholar, they point out that the state of our military was "awesome." In an article in *Foreign Affairs*, in October 2016, "America's Awesome Military," they said the "United States has the best military in the world today by far." Therefore the Department of Defense did not need a major budget increase.

It is also important to keep in mind, since we are dealing with this historically, that military retirement, which up until the middle of the Reagan administration used to be in the defense budget, is now outside, and that now totals over \$100 billion. And, finally, the Veterans Administration (VA) is about \$260 billion. It is clear, therefore, that we are spending a large amount on national security, moreover, even if you control for inflation, the proposed Biden budget level is higher than at the height of the Reagan buildup, which I had the privilege of working on.

And I might point out that in the second Reagan administration, when we began to have deficit problems and everything, we cut defense spending by 10 percent.

It is also important to keep in mind that in President Biden's campaign, he talked about the Defense Department abandoning all fiscal discipline. Well, if he is going to go along with the Trump numbers, I do not see how that does not also abandon fiscal discipline.

Finally, since we are withdrawing from Afghanistan, we should basically be able to cut defense spending more with the money we will have not have to spend on that conflict. I might also point out that, during sequestration the top-line defense number came down, but—and this is so important—the warfighting budget, according to the Pentagon Comptroller, was used as a slush fund to keep defense from being cut too much onto sequestration.

Very quickly, what weapons? You have got the F-35, which the late Senator John McCain has called a "scandal and a tragedy," and basically this is something that the nominee to be Air Force Secretary called "Acquisition malpractice," he called it when he worked for Obama. So that is the first thing you really need to take a hard look at. And whatever else you do, do not do what Congress has done the last 5 years, which is basically add to what the Pentagon has requested for the F-35.

I think Adam Smith put it very well. Pouring more money into F-35 is like pouring money down a rathole.

Second, there is the ground-based missile defense, I agree with Bill Perry where he says we do not need it, and basically not only do we not need it to have deterrence, but it is dangerous because, as many of you know—and I saw it myself when I was on active duty and when I worked in the Pentagon, you have to launch them on warning because it is too late if they are hit because they are not movable. And what happens if it is a false positive, it is too late. So I do think that that is something that can be eliminated, and, again, remember we are talking about a weapons system that has gone up 20 percent in the last couple of years.

And then there are large aircraft carriers, the Ford Aircraft Carrier. The first one came in twice the cost of the last Nimitz, and not only—and, again, I will quote Senator McCain: "The era of the

big carrier is over.” So if you want to build them, you ought to build small ones.

And then, finally, when you get to Pentagon Management. The Comptroller of the Pentagon admitted they waste \$25 billion a year. They have not passed the audit. We need another Base Realignment and Closure (BRAC), which I had the privilege of starting with Senator Goldwater, and take a look at the 800 bases we have around the world.

Thank you.

[The prepared statement of Mr. Korb appears on page 24]

Chairman SANDERS. Thank you very much, Larry.

Now we are going to hear virtually from Bill Hartung, who is the director of the Arms and Security Program at the Center for International Policy. Bill?

STATEMENT OF WILLIAM D. HARTUNG, DIRECTOR, ARMS AND SECURITY PROGRAM, CENTER FOR INTERNATIONAL POLICY

Mr. HARTUNG. Thank you. I want to thank Chairman Sanders, Ranking Member Graham, and members of the Committee for this chance to address you today. As was mentioned, I run the Arms and Security Program at the Center for International Policy, CIP, and our mission is to make a peaceful, just, and sustainable world the central pursuit of U.S. foreign policy. I will focus my remarks on the issue of Pentagon waste.

I see four major types of waste at the Pentagon: misguided strategy, buying ineffective weapons systems, overpaying for basic items, and excess overhead.

Let us start with strategy. A defense strategy that neglects our most urgent security challenges wastes tens of billions of dollars while making us less safe. The greatest threats to human lives are pandemics, climate change, nuclear weapons, and white supremacy. The tools needed to address these challenges are not primarily military in nature. Our budget should reflect that reality.

CIP’s Sustainable Defense Task Force has come up with a plan that could save \$1.2 trillion over the next decade by putting diplomacy first, avoiding unnecessary and counterproductive wars, adopting a deterrence-only nuclear strategy, and cutting excess bureaucracy. Even after making these reductions, the United States would have by far the best-funded military in the world, over 2-1/2 times what China spends and over 10 times what Russia spends. I ask that our report be submitted for the record along with my written testimony.

[The submitted report appears on page 68]

The second area of waste is spending on weapons that are either unworkable, unnecessary, or unaffordable—and in some cases all three. As we mentioned, a case in point is the F-35 aircraft. After 20 years of development, it is not fully ready for combat, and it may never be. The F-35 is immensely costly to purchase, operate, and maintain. The GAO has determined that it will cost billions more per year than current Air Force estimates and that nearly half of the fleet could be grounded by 2030 for lack of a functioning

engine. That is quite an admission for a plane that is slated to cost \$1.7 trillion over its lifetime. There should be a pause in production of the F-35 until it can be made effective and affordable. If it cannot meet these requirements, the program should be phased out.

The second case of unwise procurement is the new intercontinental ballistic missile (ICBM), a ground-based strategic defense system, or GBSD. Former Secretary of Defense William Perry has called ICBMs “some of the most dangerous weapons in the world” because the President would have just a matter of minutes to launch them on warning of an attack, greatly increasing the risks of an accidental nuclear war. We can maintain a robust deterrent without building a new ICBM, which will cost \$264 trillion over its lifetime.

The third area of concern is price gouging by contractors. An egregious case in point is TransDigm, which took profit level of over 4,000 percent—4,000 percent—on spare parts provided to the Pentagon. This kind of overcharging is routine and costs billions of dollars per year.

Finally, there is the issue of excess overhead. The greatest source of redundancy is the Pentagon’s employment of 600,000 private contractors. Many of these contractors do jobs that can be done better by civilian Government employees at much lower cost. Cutting spending on private contractors by 15 percent would save over \$26 billion per year.

Another source of overhead comes from major weapons contractors. As was mentioned before, in all more than half of the Pentagon budget goes to private contractors. The top five contractors alone received over \$150 billion in Pentagon contracts last year, and Lockheed Martin made \$8 billion in profits. Its CEO made over \$20 million, 500 times what a beginning enlistee in the armed forces makes. If we want to save on Pentagon spending, we need to go where the money is. That is why I believe we should have an independent assessment of contractor compensation, profits, and overhead, ideally done by the GAO, which would be a tool for cutting corporate overhead and corporate misfeasance in Pentagon spending.

I think all of us can agree that Pentagon waste benefits no one and does nothing to enhance our security. So I think there are measures we can take to eliminate that, but I think we have to look at both the waste from misguided policies as well as the waste from mismanagement.

And so, with that, I will conclude my remarks, and I thank you again for the opportunity to testify, and I look forward to your questions.

[The prepared statement of Mr. Hartung appears on page 31]

Chairman SANDERS. Well, thank you very much, Bill.

Our next panelist is Mandy Smithberger, who is the director of the Center for Defense Information at the Project on Government Oversight. Mandy?

**STATEMENT OF MANDY SMITHBERGER, DIRECTOR, CENTER
FOR DEFENSE INFORMATION, PROJECT ON GOVERNMENT
OVERSIGHT**

Ms. SMITHBERGER. Thank you, Chairman Sanders, Ranking Member Graham, and members of the Committee, for inviting me to testify before you today. I want to thank the Committee for holding this hearing and examining spending at the Department of Defense and to thank the Chairman for his leadership in forcing a debate on the size of the Pentagon's budget.

While we await details on the fiscal year 2022 budget, what we know so far shows Pentagon spending continues to increase at an unsustainable rate. Testimony heard before this Committee nearly 40 years ago largely remains true. We are paying too much for too little capability. Buying unproven weapons systems in quantity before testing is complete, awarding contracts to companies with histories of waste and misconduct, and giving disproportionate funding to an agency that is years away from being able to pass an audit wastes taxpayer dollars and undermines readiness.

Significant cuts to the Department's budget are necessary to create the incentives and pressure for reform, to address how the Department spends its money and how it fails to set priorities. Throwing even more money at the Department I fear is going to make these problems worse.

As has been mentioned, the Department's most expensive program, the F-35, is an instructive case study of current problems and their expensive consequences. At the beginning of the F-35 program, the aircraft's public image was that it would be "more Chevrolet than Porsche." This year, the Air Force Chief of Staff called it "something closer to a Ferrari." While there are many lessons to be drawn from the F-35 program, there are four I want to highlight.

First, we must fly before we buy.

Second, we must insist on good data from the beginning of these programs.

Three, we have to beware complexity in the cost that that brings onto our force.

And, four, we must secure as much as possible the intellectual property rights to enhance competition.

The conventional wisdom is that the F-35 program is politically untouchable due to sunk costs and because contracts are spread out across the country. I can think of no greater indictment of our current acquisition system if we cannot course-correct a program because of corruption in our system. I think we need to make sure that we are doing the right things for our warfighter.

We also have an acquisition system designed to increase costs. The most significant problem, as you mentioned, Chairman, is the corrupting influence of the revolving door of senior Pentagon officials going to work for the defense industry. The end result is officials appearing to or actually confusing what is in the best interest of our national security with what is in the best financial interest of defense contractors.

Of course, the Department does not just pay too much for complex weapons systems. They also spend too much on spare parts. We get fleeced on spare parts like pins and drainpipes. The over-

priced plastic toilet seat covers that cost \$640 in the 1980s now cost \$10,000.

One of the root causes of these overcharges is misuse of commercial item designations, which makes it difficult for the Government to obtain cost or pricing information to determine whether the prices contractors are charging are fair and reasonable. When an item is designated as commercial, contractors generally do not have to provide cost or pricing information to the Government. If something were truly commercial, prices would not be secret. Reforming the definition of "commercial item," as the Obama administration previously proposed, is an overdue reform to reduce overpayments and waste.

As Mr. Hartung mentioned, another opportunity for savings is service contracting. Last year, the Department spent \$200 billion on service contracts. POGO has found that service contractors can cost nearly three times more than civilian employees. Both the Defense Business Board and the Pentagon's own cost-estimating shop have identified this as a key opportunity for savings. Looking for those savings and improving data on that spending will go a long way to helping the Department.

We must also make sure that taxpayer dollars do not go to risky contractors. Currently, companies that waste taxpayer funds or defraud the Government often continue to receive contracts. The Government could make more informed decisions about who wins those awards if reporting and transparency of responsibility information was improved. Chairman Sanders made sure that much of this information is available to the public, but it is a shadow of the information that we should have.

One final danger is the opaque nature of beneficial ownership information. Hiding who really owns controls and financially benefits from an entity presents corruption risks and can undermine national security. Congress recently strengthened public disclosure of beneficial owners, but this disclosure should go farther.

In summary, we recommend four major areas of reform.

First, we must stop the revolving door between the Pentagon and the defense industry.

Two, we must reform acquisition laws to empower the Department to make smarter buying decisions.

Three, we must increase transparency and curtail the overuse of service contracting.

And, four, we must enhance the Government's tools to ensure taxpayer dollars only go to responsible companies.

Finally, I want to thank the Committee for continuing to conduct oversight over the Department's weak financial management and would urge the Committee to also look at how statutory requirements for wish lists undermine budget discipline overall. The importance of the Department of Defense mission along with its significant taxpayer resources means that it must be a model for efficiency and for accountability.

Thank you again. I am happy to answer any questions you may have.

[The prepared statement of Ms. Smithberger appears on page 37]

Chairman SANDERS. Thank you very, very much.

Our next panelist is Roger Zakheim, who is the Washington director of the Ronald Reagan Presidential Foundation and Institute. Roger?

**STATEMENT OF ROGER ZAKHEIM, DIRECTOR, RONALD
REAGAN INSTITUTE**

Mr. ZAKHEIM. Chairman Sanders, Ranking Member Graham, and distinguished members of the Committee, thank you for inviting me to testify today. The following is a summary of my full statement, which I have submitted for the record.

As Congress reviews the fiscal year 2022 defense budget request, this Committee should consider three things:

Number one, providing a 3- to 5-percent real growth per annum increase in defense spending to ensure that the Department of Defense can execute its current strategy, mission requirements, and modernize the force.

Two, end the repeated use of continuing resolutions and revisit the laws that incentivize “use it or lose it” spending, and continue to support DOD efforts to realize a comprehensive, clean audit.

Three, ensuring that emergency spending measures before Congress do not leave the Department of Defense victim to reduced appropriations and harmful budget delays.

Defense budgets must be strategy-driven and fiscally informed, not the reverse. Secretary Austin echoed this view during his Senate confirmation hearing saying, and I quote, our “resources need to match our strategy and our strategy needs to match our policy.”

As the 2018 bipartisan National Defense Strategy (NDS) Commission outlined, Russia and China have embarked on massive military modernization initiatives that have diminished America’s longstanding military advantages, and even surpassed the United States in some key capability areas.

Accordingly, the NDS Commission’s recommendation that a 3- to 5-percent real growth increase in defense spending remains an urgent priority for the U.S. military to project power and uphold alliance commitments. The Biden administration has nominated a Comptroller for the Department of Defense who just yesterday stood by this recommendation.

Even before the economic downturn triggered by COVID-19, calls to reduce defense spending emerged from elements in both political parties. Now, with historic deficits following the Federal spending on COVID-19 relief and other proposed emergency measures, those calls are increasing.

To examine the real consequences of cuts to the Pentagon’s resources, the Reagan Institute along with the Center for Strategic and Budgetary Assessments hosted two Strategic Choices Exercises this past fall captured in this publication. The results of this bipartisan group effort were clear: Defense budget cuts would have a devastating consequence on our military and our national security. A 10-percent cut, something discussed today, would leave the United States with a military that is incapable of carrying out the current National Defense Strategy. It would compel the Department of Defense to reexamine its current standard of maintaining a force that can win one war while deterring another. In other

words, “With cuts of this magnitude, the United States could be reduced to a de facto hemispheric power by 2030.”

The administration’s \$715 billion budget request for fiscal year 2022, when accounting for inflation, is a reduction from the previous fiscal year. While this may appear to be sufficient to maintain the status quo, readiness and modernization accounts will shrink as other budget lines, such as personnel and operations and maintenance accounts tend to demand continued real growth.

Put differently, defense cuts do not equal defense reform; rather, as our strategic choices exercise makes clear, less resources result in a less capable fighting force.

As this Committee considers how to reduce waste and inefficiency, it ought to consider one of the most consistent drivers of inefficiency in the Department of Defense: continuing resolutions (CR).

As this Committee knows, the Department of Defense has started the fiscal year under a CR 15 of the past 20 years, creating unnecessary uncertainty that creates significant management challenges for the Department of Defense. Interim CRs create compressed timelines for expenditures and generate waste by requiring short-term contracts that must be re-signed once additional funding has been allocated. These inefficiencies cost real money, and the NDS Commission, which I referenced before, concluded CRs have had “a grave material impact, encouraging inefficient, ‘use-it-or-lose-it’ spending by the services at the end of the fiscal year, resulting in delays in acquisitions and modernization, and exacerbating readiness problems throughout the force.” A more radical reform the Congress might consider is revisiting legal restrictions that incentivize “use-it-or-lose-it” spending.

Last, this Committee should also consider how emergency spending measures before this Congress may impact the Department of Defense and the annual appropriations processes. In the aggregate these measures before the Congress would add up to the equivalent of over 4 years of Federal discretionary spending. Though the unprecedented crisis brought on by the COVID–19 pandemic justifies emergency spending, prioritizing multi-trillion, multi-year omnibus packages threatens to exhaust congressional appetite for spending during its regular consideration of the President’s budget request leaving the DOD in a precarious funding position.

Americans understand what it takes to sustain the peace and prosperity, and they are willing to make the investments necessary to support a strategy that delivers just that. It is imperative that this Congress balance domestic and national security priorities in a fashion that ensures our military is properly resourced to meet the demands of our national defense obligations.

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

[The prepared statement of Mr. Zakheim appears on page 49]

Chairman SANDERS. Thank you very much.

Our next panelist is Lieutenant General Thomas Spoehr, who is the director of the Center for National Defense at the Heritage Foundation. General?

STATEMENT OF LIEUTENANT GENERAL (RET.) THOMAS SPOEHR, DIRECTOR, CENTER FOR NATIONAL DEFENSE, THE HERITAGE FOUNDATION

General SPOEHR. Chairman Sanders, Ranking Member Graham, other members of the Committee, good morning. Thank you for the opportunity to appear today.

The Department of Defense, with its nearly 20 million employees, an annual budget of over \$700 billion, and more than \$3 trillion worth of assets, has a special obligation to be a good steward of the resources entrusted to it for the Nation's defense. No organization is perfect, and the DOD is no exception. But given the amount of oversight, safeguards, and reforms in place over the years, it is my opinion that the Pentagon today is one of the most scrutinized and reformed organizations in the Federal Government.

In March 2021, the Government Accountability Office reported "DOD continues to demonstrate a strong commitment, at the highest levels, to improving the management of its weapon system acquisitions," and that "DOD leadership continued its commitment to financial management improvements."

Some argue that the Pentagon budget is overly large, indeed "bloated" and riddled with waste. But just because something is big does not mean it is bloated. Dwayne "The Rock" Johnson is big, yet no one in the world would accuse him of being bloated.

National defense now consumes the smallest portion of the U.S. Federal budget in 100 years—15 percent—and continues to shrink. And except for a moment in 1999, spending today on national defense now consumes the smallest percentage—3.4 percent—of the U.S. gross domestic product in modern history.

Critics will use the statement DOD's funding is bigger "than the next ten nations' military budgets combined" as grounds to argue that the budget is overly large and unnecessary. But added context and explanation is necessary.

First, when adjusted for purchasing power parity, an internationally recognized method of equating economies, U.S. defense spending in terms of its purchasing power turns out to be roughly equal to that of two countries—China and Russia—not ten.

The second overlooked element is that the U.S.—for better or worse—is a global power with worldwide defense commitments to North Atlantic Treaty Organization (NATO), Japan, South Korea, Israel, Australia, New Zealand, sea lanes, and other areas. Other countries do not share these responsibilities, and it is misleading to compare the United States to others without that context.

In the end, the best and, unfortunately, the most difficult way to determine the proper size of the U.S. defense budget is to understand how well that budget allows the Nation to execute its current National Defense Strategy.

I would like to turn to the Pentagon's reform efforts. No other Federal department has undergone the number of reforms and efficiency drives as the Pentagon has in the last 5 years. Working in many cases at the direction of Congress, the DOD converted its defined benefit retirement plan to a hybrid defined contribution plan, cut headquarters sizes by 20 percent, completely reorganized the delivery of its health care, and produced a new acquisition framework to acquire capabilities. Pentagon efficiency efforts, such as the

Defense-Wide Review or the famous “Night Court” review in the Army, saved billions of dollars.

Finally, let me now turn to the DOD financial audit. Some point to the Pentagon’s inability to pass an audit as evidence that the Pentagon is unworthy of its funding. Congress imposed the requirement for the DOD to pass a financial audit back in 1990, even though passing an audit is no guarantee an organization is well managed or free from corruption. Indeed, Enron, the poster child for corporate abuse, passed all its financial audits, right up until the moment it imploded from massive fraud.

The Pentagon has undergone three full audits in the last 4 years without passing any of them. At a recent hearing, the Acting DOD Comptroller predicted that it would now take until 2028 for the Pentagon to pass the audit.

Albert Einstein is credited with saying that the definition of insanity is doing the same thing over and over again but expecting different results. It is not for lack of trying that the Pentagon has not passed the audit. The audit is larger in scope and size than any other attempted of its kind. The 2017 audit cost nearly \$1 billion dollars—\$367 million to conduct it, \$551 million to fix the issues it discovered. And subsequent years have carried similar costs.

U.S. corporations by law undergo strict financial audits to assure potential investors of the soundness of their offerings. But the DOD is not a corporation and has no corresponding need.

Conducting the audit is the law of the land and for that reason must be performed. But there should be more than a legal requirement to continue to spend \$1 billion a year unless the payoff at the end is expected to outweigh the costs. But, unfortunately, most experts believe passing the audit will not cause the DOD to become appreciably more efficient nor better managed.

The effort to audit the Pentagon should not be, however, discarded. There are some elements which, if tackled and fixed, would provide value-added like fixing problematic financial transactions and IT systems. But many elements of the audit, such as verifying physical property existence and valuations—portions of which demand DOD recount physical property, such as World War II buildings, or the requirement to place a value on a 1960s-era armored personnel carry—carry no value. So the audit requirement should be modified. Congress should take the immediate opportunity to work with the Pentagon and the auditing community to narrow and focus the effort of the financial audit to include only those items which, if fixed, would add direct value to management and financial operations of the Pentagon.

Thank you for the opportunity to testify. Nothing I have said should be taken to mean that the Pentagon deserves a free pass on efficiency. Indeed, the Pentagon must get better. There are no quick and easy solutions to making the Pentagon more efficient. But “hard” is not “impossible,” and nothing is more important to the long-term future of this country than an effective and efficient national security apparatus.

Thank you.

[The prepared statement of Lieutenant General (Ret.) Spoehr appears on page 56]

Chairman SANDERS. Thank you.

Okay. Now we will begin the questioning. Let me begin with Mandy Smithberger. Ms. Smithberger, in your written testimony, you talk about the Pentagon providing \$334 billion to defense contractors that defrauded taxpayers over the recent 5-year period. You talk about defense contractors being found guilty of price gouging, providing poor-quality goods and services, and improperly disseminating sensitive military information. You talk about the Pentagon paying \$10,000 for a plastic toilet seat, \$71 for a pin that should have cost 5 cents, and paying nearly \$2,300 for landing gear that should have cost \$10.

So my question is: How prevalent is fraud within the defense contracting industry?

Ms. SMITHBERGER. Thank you for the question.

Chairman SANDERS. Speak as close as you can to the microphone.

Ms. SMITHBERGER. Yes, apologies for that. So we know anecdotally from these instances that you refer to that—and POGO maintains a Federal contractor misconduct database so that we can try and take advantage of what has been publicly reported. But I do think that we need to have a more comprehensive review on what the scale of these issues are that we have not had a review of how the Department is using its suspension and debarment system to prevent us from continuing to do business with other contractors. It is easily in the billions of dollars. I suspect it is in the tens of billions of dollars. But we really need to have an authoritative look from independent auditors.

Chairman SANDERS. Okay. Thank you.

A question for Bill Hartung. Bill, you note in your testimony that at least half of the Pentagon budget goes to private contractors. Is that a problem in its own right? Or is the issue whether these corporations are held accountable to provide effective goods and services at a fair price?

Mr. HARTUNG. Thank you, Senator Sanders, for the question. I think it is both. When you have five companies getting \$150 billion, about 20 percent of the Pentagon budget, it gives them immense bargaining power over the Pentagon. When you see examples like the new ICBM, where it was a sole-source contract because Boeing pulled out of the competition with Northrop Grumman because Northrop Grumman was allowed to purchase the biggest producer of solid rocket motors for ICBMs, and Boeing said, well, you know, this was the end of it, we cannot compete on this basis. So these big companies and these big mergers I think just tilted the balance in favor of the contractors against the taxpayers.

Then, of course, there are many measures that should be taken, as Ms. Smithberger has noted in her testimony, including empowering contracting officers to challenge bogus pricing. I think we need to, as I said, have an audit of contractor overhead. So there is a whole series of things that could be done. I think fly before you buy so we are not buying planes like the F-35, which may never

get off the runway in the numbers needed to meet our defense needs.

So I think it is a combination of certainly not letting any more mergers happen, maybe looking at reducing and taking apart some of the prior ones, and then much more rigorous oversight. So I think it is the combination of the two.

Chairman SANDERS. Good. Thank you very much.

Larry, you worked for the Defense Department under President Reagan. Is that correct?

Mr. KORB. That is correct, yes.

Chairman SANDERS. All right. The bottom-line question here, I think, is all of us want a strong defense. Senator Graham says it is a dangerous world. It is a dangerous world. But just spending huge amounts of money does not make our military more effective. We could be wasting huge amounts of money, making it less effective, in fact.

So my question to you is a very simple one. You mentioned during the Reagan years actually defense spending was cut. Do you believe that, given the enormous problems facing our country in terms of infrastructure and poverty and health care, et cetera, et cetera, do you believe that we can maintain the kind of strong military that we need and yet that we can cut defense spending?

Mr. KORB. Very definitely I do, because basically no matter how much you spend on defense, you cannot buy perfect security, always going to make choices. And so, therefore, my experience in Government and out of Government—I wrote my doctoral dissertation on the role of the military in the defense budget process—basically is you do the best you can with the number that you have. And so, therefore, if you told me today to go back to the Pentagon and you have got \$700 billion, I think I could provide security and deal with the deficit. And remember that the deficit is also a threat to national security. And so, therefore, if you are cutting defense to help deal with the deficit, you are actually improving national security.

I think that there is no magic number for the defense budget. This current number is historically high, and as I mentioned—and no one pays much attention—we used to have military retirement in there with the numbers you are comparing from years ago. It is not there anymore. It is \$100 billion that the Pentagon does not have to spend in this amount, but the taxpayer still spends it.

Chairman SANDERS. Good. Okay. Thank you very much.

Senator Kaine? Oh, sorry, my apologies. Senator Graham.

Senator KAINE. I want to go, but I am not rushing. Go ahead.

Chairman SANDERS. I am sorry. My fault. Senator Graham.

Senator GRAHAM. Okay, I will be quick. Thank you. Thank you, Bernie.

General Spoehr, are you available?

General SPOEHR. Yes, sir.

Senator GRAHAM. You said in your testimony, I believe, that we are about at 3.4 percent of GDP on defense spending, and that is the lowest in modern history except for 1999. Is that correct?

General SPOEHR. Yes, Senator.

Senator GRAHAM. Okay. So when people say that we are spending more on defense, the truth of the matter is, in terms of GDP,

over the arc of time, we are the second-lowest level in modern history. Is that correct?

General SPOEHR. It is, Senator, yes.

Senator GRAHAM. Mr. Zakheim, do you agree with that?

Mr. ZAKHEIM. Yes, Senator.

Senator GRAHAM. Okay. Now, let us compare that to the Russian-Chinese defense budgets. In what direction are they headed, Mr. Zakheim?

Mr. ZAKHEIM. Senator, both China and Russia are significantly increasing their defense spending.

Senator GRAHAM. Okay. How many of you remember sequestration? Everybody? Mr. Korb—is that correct, sir.

Mr. KORB. That is correct, Senator.

Senator GRAHAM. You mentioned General Petraeus. I have a quote here. This is in September 2016. “It is also time to end the perennial threats of sequestration and place the Pentagon’s budget on a general upwards path in real terms.” September 2016. But the statement that I would like to run by you, the Secretary of Defense said, “For all the heartache caused by the loss of our troops during these wars, no enemy in the field has done more to harm the readiness of our military than sequestration.”

Do you agree with that statement?

Mr. KORB. No, I do not.

Senator GRAHAM. Okay.

Mr. KORB. Because as I mentioned, you had a slush fund in the Overseas Contingency Operations (OCO) account. For example, we pay in the warfighting budget—

Senator GRAHAM. Why would he say that? Why do you think he would say that?

Mr. KORB. Well, I think that it could have that effect, if you did not use the warfighting budget as a slush fund to offset sequestration in the baseline budget.

Senator GRAHAM. Mr. Korb, here is what I would say. I lived through sequestration like Senator Kaine. It was great. It was devastating. Our readiness was affected. Our modernization program was robbed. We had to transfer money and equipment to front-line warfighting, and everything back home deteriorated.

So let me ask you this: Do you support a 10-percent cut in our military budget as proposed by Senator Sanders?

Mr. KORB. I think you could cut it 10 percent and still have an effective—

Senator GRAHAM. Okay. Ma’am, what would you say? I do not want to butcher your name. How do you say your last name?

Ms. SMITHBERGER. Oh, “Smithberger.” It is just a German one.

Senator GRAHAM. Okay. I lived in Germany, and I was not very good at German then. So would you support a 10-percent cut?

Ms. SMITHBERGER. I think those are the kinds of numbers that we need to be talking about.

Senator GRAHAM. Okay. The other gentleman, Mr. Hartung, would you support a 10-percent cut?

Mr. HARTUNG. Yes. I think with a realistic strategy and proper procurement, we could certainly defend the country with a 10-percent cut.

Senator GRAHAM. Mr. Zakheim, would you support a 10-percent cut?

Mr. ZAKHEIM. Senator, I would not.

Senator GRAHAM. General Spoehr, would you support a 10-percent cut?

General SPOEHR. Senator, a 10-percent cut to the military today would not allow us to execute the National Defense Strategy nor allow us to counter the efforts of China.

Senator GRAHAM. And let me just give you my 2 cents' worth. I think if we cut our budget 10 percent militarily, our allies would freak out. NATO without the United States is not a whole lot. We appreciate all their contributions, but we saw that in Libya. So we are an indispensable partner in keeping the world stable. I just cannot imagine the ripple effect throughout the world if America chose to go below where we are today in terms of emboldening our enemies.

Mr. Zakheim, what threat does Iran present to the region and to the world, in your view?

Mr. ZAKHEIM. Senator, Iran presents a threat to freedom across the world. It threatens our close allies——

Senator GRAHAM. Do you believe if they had a nuclear weapon they would use it?

Mr. ZAKHEIM. Senator, a threat is a combination of intent and capability. The mullahs in Iran have demonstrated that they intent to bully, and with that capability they would use it in lots of different——

Senator GRAHAM. Do you agree with that, General Spoehr?

General SPOEHR. I do, sir. They just lobbed ten ballistic missiles against U.S. forces in Iraq. Why would they stop at a nuclear weapon?

Senator GRAHAM. So pivoting to Asia is a great aspiration, but let me tell you right now, to any administration, if you do not understand the threats coming from the Mideast to our national security and that of our allies, you are making a very dangerous mistake. And it is right to want to challenge China because they are getting more robust. So the idea of pivoting from one threat area to another is not an option. You have to deal with all the threats. And I cannot think of a worse time in modern American history to be reducing our defense capability than right now.

Thank you.

Chairman SANDERS. And now Senator Kaine.

Senator KAINE. Thank you, Mr. Chair, and thank you for calling this hearing. It is an important matter for not just the Armed Services Committee to dig into but the Budget Committee as well.

I have followed the historic data about defense spending as a percentage of GDP and other spending categories. We have often talked about that in the Committee. Most of our spending categories as a percentage of GDP are going down. Nondefense discretionary is going down. Defense spending is going down. Pension and health-related items are going up. Interest as a percentage of GDP is going up. And the thing that is really going up fast is tax expenditures. Tax collection as a percentage of GDP has been dropping, but the tax expenditures have been dramatically going up.

And so I put it in that background. Even though defense spending as a percentage of GDP is going down, we ought to get rid of waste, fraud, and abuse. We should. How do you determine that and how do you do it is the issue.

First, you ought to match what you are doing against the threat to the Nation's security. So what I would like to ask our five witnesses to do—and I will go to the three in person, starting with Dr. Korb, and then come to our two online—is: On a scale of 1 to 10, 1 being we should not be worried at all, 10 being we should be very worried, give me your 1-to-10 rankings of how worried we should be about Russia and China on a 1-to-10 scale?

Mr. KORB. I would say no more than a 5. This is not the second coming of the Cold War.

Senator Kaine. And you would say no more than 5 for either Russia or China?

Mr. KORB. Yes. I would say no more than 5 for China, and Russia maybe a 2.

Senator Kaine. Okay. And if you want to, you can say you have no opinion about this question, but I just want to now move to Ms. Smithberger.

Ms. SMITHBERGER. Thank you for the question. I would say a 6, but I think it is important that we look at what is happening when we have such a large level of spending and whether we are actually spending money on combating those threats in an effective way.

Senator Kaine. When you say 6, you would say for both Russia and China?

Ms. SMITHBERGER. Yes.

Senator Kaine. Mr. Zakheim?

Mr. ZAKHEIM. Senator, I would put China ahead of Russia. You know, I do not want to make them 10 feet tall, but they are approaching that. So I would give them an 8 and then put Russia behind it. The distinction I would make and ask you to consider is that Russia's adventurism is a real near-term threat; whereas, China is a problem today and a bigger problem tomorrow.

Senator Kaine. Now if I could go to Dr. Hartung and General Spoeher.

Mr. HARTUNG. Yes, I would probably rank China at a 4 and Russia at a 2. We are more capable than China in virtually every major military, you know, capability. We spend three times as much. We have a more capable navy. We have 13 times as many warheads—

Senator Kaine. I got you. If I could, I want to move to another question, but I want to hear General Spoeher's answer.

Mr. HARTUNG. Sure.

General SPOEHR. Sir, I would give China a 9. We have never seen an adversary like them, and they are on a trajectory. They are growing their defense budget this year by 6.8 percent. I would give Russia a 7. Thank you.

Senator Kaine. Thank you for that. I do think it is important to match spending to threat levels.

Here is the next point I want to make. If we are going to make cuts—and we should always analyze whether we should—we should not make them non-strategically. I will give you a couple of examples.

A few years ago, there was a big battle in the Armed Services Committee, and over my objection a decision was made to do across-the-board cuts to headquarters—not strategic cuts, just we imposed a percentage cut on headquarters. Thirty-three percent of the Pentagon personnel that were overseeing military housing were laid off. And then 3 years later, we had a massive problem about nobody was overseeing military housing.

We have in the last few years reduced significantly Pentagon staff that oversee MilCon construction projects. We know of overspending on weapons systems platforms, but if you looked at the MilCon budget for like 2017 and you looked at projects and you said what percentage of these came in on time and on budget, the answer is: Who knows? We do not have anybody there to do the analysis of this.

So if we are going to make cuts, we should really try to find what is fraudulent, what is abusive, what is wasteful. The across-the-board stuff, you end up hurting yourself, and then it comes back to bite you later.

And then the last thing I would like to say in my last 30 seconds on this is I think it was you, Ms. Smithberger, who may have said something about inadequate testing. This is a huge problem with the Pentagon. On weapons systems, on construction projects, we do not set up the toll booths early enough and then test to see whether it is working before we just blow through them. And then the problems turn into massive problems that could have been solved much earlier.

We had testimony recently in an Armed Services Committee hearing from the Office of Testing and Evaluation at the Pentagon, within the last 2 weeks, and they said every weapons system that they tested in 2020 flunked the, well, I guess it is vulnerable to a cyber attack. And that was because enough work was not done up front on the engineering and research and early testing to protect. And so I think there is significant ways that we can cut abuse or waste or inefficiency, but we may have to invest some dollars early in things like testing or the personnel to oversee construction or acquisitions if we are going to do it in a smart way rather than in an across-the-board way that could hurt us.

Thank you, Mr. Chairman.

Chairman SANDERS. Thank you, Senator.

Senator Grassley.

Senator GRASSLEY. Thank you, Mr. Chairman and the witnesses, for this hearing on a very important issue. It is so important.

I would like to hear from the Defense Secretary to come and testify as well. Every year when a new defense authorization or funding bill is due, military leaders and my colleagues claim additional funding is crucial to countering our enemies and protecting our interests abroad. National defense is the number one priority of our Government, and Congress is often reluctant to deny money that military leaders say is greatly needed.

However, Congress and the Pentagon need to reach an understanding that fiscal accountability and military readiness are not mutually exclusive. Earning a clean audit opinion would strengthen military readiness and boost support for increases to defense spending with both Congress as well as the taxpayer. It is crucial

for our national defense that the Department of Defense can fully account for its spending.

Yes, the Defense Department has completed three consecutive annual audits now. There are some signs of progress. However, the goalposts continue to shift, and we are told maybe, just maybe, we will have a clean opinion 7 years from now, nearly 40 years after Congress first passed a law requiring a clean audit. While some findings have been closed, new ones seem to be raised.

One of the key findings of the audit year after year is that internal controls are weak or nonexistent. Sloppy bookkeeping, antiquated accounting systems that cannot generate reliable transaction data lead to unaccountable spending and create an environment ripe for waste, fraud, and abuse. It is these underlying systems that must be fixed before any real progress on audit can be made.

We have 3 minutes, Ms. Smithberger, for a couple questions for you. The Department of Defense has competing priorities, including supporting the National Defense Strategy of 2018. Audit remediation efforts are expensive. Do you think it is a worthwhile use of limited resources to support the efforts to get a clean opinion? And how do you think the audit efforts improve accountability in other areas such as defense contract oversight over bad actors?

Ms. SMITHBERGER. Thank you, Senator, for the question and for your leadership on these issues. I do think that the audit is worth it. I think we are already seeing the payoffs where we are discovering significant weaknesses in our real property management, discovering billions of dollars of assets and equipment that we did not know that we had, and being able to—so I think in many ways it is going to pay for itself.

There are other ways that we have seen real dividends in investing in these audit processes, as Senator Kaine was mentioning. There are a number of arenas where we are not doing enough when it comes to cybersecurity, and the audit is revealing a number of those vulnerabilities. And I think it has really been the Congress pushing the Department to prioritize the audit that has really led to making a number of overdue changes, and by having those more effective and reliable systems that we are going to be able to be better at identifying contractor fraud, we are going to be better at being able to identify systemic problems that are undermining our readiness and causing waste.

Senator GRASSLEY. Also for you, my final question. The Chief Financial Officers (CFO) Act was passed way back in 1990. It has taken decades for the Department of Defense to even begin conducting a full financial statement audit, and a clean opinion is supposedly still years away. What in terms of incentives or penalties would be effective to accelerate the pace of the audit effort and ensure that progress is made and that DOD is not simply conducting an audit every year that is doomed to fail?

Ms. SMITHBERGER. Thank you for the question. So POGO was very proud to support your amendment with Senator Sanders that would actually impose financial penalties to components who are not able to meet these goals. I think what is important about this is not only the accountability, but continuing to show to the Department how seriously you are taking these issues, and then you

are empowering people within the Department to make sure that these problems are addressed and so that we can accelerate the rate so that we can get to a clean audit much sooner.

Senator GRASSLEY. Yes. And then one final statement. Since Mr. Korb mentioned my name and I do appreciate working with him decades ago, we did accomplish something that particular first term—or I guess it was during the second term of Reagan, we got the False Claims Act passed that has brought \$63 billion back into the Federal Treasury as a result of all of the waste and abuse and mismanagement that we pointed out in the Reagan administration first term.

Thank you. I yield back.

Chairman SANDERS. Okay. Thank you, Senator Grassley.

Is Senator Van Hollen available? I know he wants to communicate virtually. He may be tied up. Not now. All right.

Well, with that, then we have a vote, I think, so let me just conclude by thanking our panelists. This is an issue, I think, that needs an enormous amount of work on the part of Congress. The amount of money that we are dealing with is staggering. The complexity of the DOD budget is quite unbelievable. And I think at the end of the day we want a strong defense, but we want to do it in a cost-effective way. And in my view, there is a lot of work that has to be done to make that agency much more cost-effective.

So let me thank the panelists, let me thank the Senators, and this meeting is adjourned.

[Whereupon, at 12:12 a.m., the Committee was adjourned.]

ADDITIONAL MATERIAL SUBMITTED FOR THE RECORD

[Prepared statements, responses to written questions, and additional material submitted for the record follow:]

PREPARED STATEMENT OF MR. LAWRENCE J. KORB

Testimony of Lawrence J. Korb
(Senior Fellow at the Center for American Progress)
Before the Senate Budget Committee
May 12, 2021

Chairman Sanders, Ranking Member Graham, and members of the Senate Budget Committee, it is an honor and a privilege to appear before you today to discuss the national security implications of the FY2022 defense budget. I am particularly honored to discuss these issues with Chairman Sanders and Senator Grassley. There are no more effective members of Congress, over the last several decades, in ensuring that every dollar authorized and allocated to the Department of Defense is spent efficiently and effectively so that national security is enhanced. Before I begin, I want to note that although I am a Senior Fellow at the Center for American Progress, I am speaking today in my personal capacity as a former Pentagon official and retired military officer.

Passing the annual defense budget is among the most important things the Congress does because in defense, dollars are policy. This is why I have spent much of my time outside of the military and government, including the last 18 years at the Center for American Progress, analyzing the annual proposed defense budget. Moreover, given the fact that even under the best scenarios fiscal demands on the federal government are great. As a result of the COVID-19 pandemic there are even more demands, so it is critical that every dollar the Congress provides to the Pentagon be spent wisely.

In my testimony today, I will make three major points. First, the amount of money that the Biden administration is proposing to spend on defense for FY2022 is significantly higher than

necessary to protect our security. Second, the Pentagon is spending too much money on flawed unnecessary and very expensive weapon systems. Third, the new leadership in the Pentagon needs to make significant improvements in the management of the Department. At the same time, I want to underscore that while I may wish the new administration could have done more, I also appreciate it is an interim budget that it inherited. I welcome the more comprehensive approach the new administration has promised for FY2023.

The Biden administration is proposing a slight reduction in defense spending for FY2022; the outgoing administration had projected a budget of \$722 billion for 051 and \$760 billion for 050. President Biden's budget will call for \$715 billion and \$753 billion respectively, a reduction of less than 1%.

This budget request comes after an unprecedented and unnecessary increase in the level of defense spending in the four years of the previous administration. Upon taking office, President Trump declared that he had to increase the annual defense budget dramatically because of the poor state of the military he inherited from the Obama administration. But, as we have noted several times at the Center for American Progress, this claim was patently false. As we pointed out, General David Petraeus (former CIA Director and former commander of our forces in Iraq and Afghanistan) - in articles he wrote with the distinguished defense scholar, Michael O'Hanlon of the Brookings Institution - called the state of the military that Trump inherited from Obama "awesome".

Nevertheless, President Trump, with the support of the Congress, increased the level of defense spending from \$656 billion in FY2017 to \$762 billion in FY2020, an increase of over \$106 billion or 16%. As a result, as the Chairman has pointed out, the United States now spends more on defense than the next 12 countries in the world combined, almost three times as much as China and Russia combined. Even controlling for inflation, it spends more than at the height of the Reagan build-up, which I had the privilege of working on.

Defense budgets during the Reagan years represented 7% of Gross Domestic Product (GDP), whereas President Biden's budget proposal is 4% of GDP. As I noted previously, it is an interim budget and my hope is that the proposal for FY2023 reflects candidate Biden's campaign statement accusing Trump of abandoning all fiscal discipline when it came to defense spending. Since President Biden committed to withdraw all U.S. forces from Afghanistan before the start of FY2022 – a commitment made after the budget proposal was released - my hope is that the savings will allow the projected size of the FY2022 budget to decrease.

Even if this committee is unable to convince Congress to reduce the size of the President's projected defense budget, there are at least four major programs that should be cut regardless of how much we spend on defense.

First, the \$1.7 trillion F-35 program needs to be dramatically reduced if it is not completely stopped. Continuing to buy 79 of these planes as it did in FY2021, or funding the 85 proposed in Trump's FY2022 budget, or the 95 it projected for FY2023, will - as Representative Adam Smith

(D-WA) the Chair of the House Armed Services Committee recently noted- be “like pouring money down a rat hole.” Not only is the program overpriced (it is nearly double the initial estimate) but it has not yet been fully combat tested. In fact the combat test has been delayed once again. Even if it is tested by the new date of September 2022, the program will already be five years late. The late Senator John McCain correctly called the program a scandal and a tragedy. President Obama's Under Secretary of Defense for Acquisition said the program is evidence of acquisition malpractice. His Secretary of State, Hillary Clinton, said that when it comes to the F-35, we should stop throwing good money after bad.

At a minimum, Congress must stop adding additional F-35s to the service budget requests. As you know, over the last five years, Congress added 97 fighters, or about 20 a year, to the number requested by the Department of Defense.

A second program which does not need to be funded is the proposed new land-based ICBM, which is part of the \$1.3 trillion overhaul of our nuclear arsenal. William Perry, who worked for two presidents in high-level defense positions, including Secretary of Defense, is correct when he argues, in a recent book and op-eds with Tom Collina, that it is unnecessary to spend \$264 billion for 600 of these (an increase of \$43 billion over the initial projections.) Moreover, keeping the land-based ICBM can be dangerous since, in order to be effective and not be destroyed in a preemptive first strike, these weapons have to be launched on warning and cannot be recalled if the warning is false. Unfortunately, on the way out the door the Trump administration signed a contract with Northrop Grumman to begin deploying these weapons,

thus making it more difficult for the new administration and Congress to cancel or cut back the program.

I want to express my hope that the FY2023 budget (as opposed to this year's interim budget) reflects candidate Biden's campaign promise to narrow the role that nuclear weapons play in U.S. military doctrine and implements the Democratic party platform, which characterized the Trump administration's proposal to build nuclear weapons as unnecessary, wasteful and indefensible. I think that, stopping the land-based ICBM would be a good place to start.

A third area to analyze is the Ford Class super aircraft carrier. Not only does the fact that the first one in this class came in over budget at \$16.8 billion (exclusive of the \$4.7 billion spent for R&D) double the cost of the last Nimitz Class carrier, but, as the late Senator John McCain and John Shanahan, acting Secretary of Defense until mid-2019 under President Trump, have pointed out, the era of the large carrier is over. Therefore, I would eliminate advanced funding for the next two carriers in the class which together will cost at least \$30 billion.

Fourth, the committee should take steps to ensure that the Pentagon spends the funds it is allocated more effectively. It should demand that the DOD comptroller's office provide it with a list of the programs it claims waste \$25 billion a year. Next, it should demand that the Pentagon pass an audit. Two years ago it paid \$400 million for 1200 auditors, and still was unable to pass. Third, it should demand that the administration convene another Base Realignment and Closure Commission (BRAC) to eliminate the approximately 20% excess capacity and save billions of

dollars a year. Last, it should analyze why the United States needs to maintain some 800 bases around the world.

Thank you for inviting me to testify. I look forward to your questions.

PREPARED STATEMENT OF MR. WILLIAM D. HARTUNG



TESTIMONY OF WILLIAM D. HARTUNGDirector, Arms and Security Program
Center for International Policy*Hearing on Waste, Fraud, Cost Overruns and Auditing
at the Pentagon
Senate Budget Committee
May 12, 2021*

First, I want to thank Chairman Sanders, Ranking Member Graham, and the members of the committee for this opportunity to testify today. My name is William Hartung, and I am the director of the Arms and Security Program at the Center for International Policy (CIP). CIP's mission is to make a peaceful, just and sustainable world the central pursuit of U.S. foreign policy.

I want to focus my remarks on the subject of Pentagon waste, starting with a broad definition of the term.

I see four major types of waste in the Pentagon budget, starting with the big picture and moving down into specific examples. The four areas include misguided strategy; purchasing ineffective weapons systems that don't serve our strategic interests; overpaying for basic items; and maintaining excess overhead.

The first form of wasteful spending has to do with strategy. A strategy that ignores our most urgent challenges while overstating other risks wastes tens of billions of dollars while making us less safe. In terms of both short-term and longer-term threats to human lives we need to look at pandemics, the ravages of climate change, white supremacy and racial and economic injustice. The tools needed to address these challenges are not primarily military in nature. Our budget should reflect that reality.

In 2019, my organization issued a report from our Sustainable Defense Task Force – a group of former White House, Congressional and Pentagon budget officials, retired military officers, and think tank experts from across the political spectrum.¹ We found we could save \$1.2 trillion over the next decade by pursuing

¹ "Sustainable Defense: More Security, Less Spending," Report of the Center for International Policy's Sustainable Defense Task Force, June 2019, https://static.wixstatic.com/ugd/fb6c59_59a295c780634ce88d077c391066db9a.pdf and William D. Hartung and

a more realistic strategy, avoiding unnecessary and counterproductive wars, putting diplomacy first in addressing regional challenges, adopting a deterrence-only nuclear posture, and cutting excess bureaucracy. Doing so would entail cutting peacetime overseas troop deployments by about one-third, from 180,000 to 110,000; reducing the size of our armed forces by 10% as we avoid future Iraq- and Afghan-style wars; forgoing the Pentagon's \$1.5 trillion nuclear modernization plan; and reducing the use of costly private contractors. Even with our proposed reductions, the United States would have by far the best-funded military in the world – more than two and one-half times what China spends and ten times what Russia spends.²

Current spending on the Pentagon and related work like nuclear warhead development at the Department of Energy is substantially higher than U.S. spending at the peak of the Korean or Vietnam Wars or the Reagan buildup of the 1980s.³ There is plenty of room to reduce the Pentagon budget while improving our security by better aligning our spending to address our most urgent challenges. I'd be glad to talk more about our findings and would ask that our Sustainable Defense Task Force report be submitted for the record along with my written testimony.

A second area of waste is spending on weapons that are either unworkable, unnecessary or unaffordable – or in some cases all three.

Examples of systems that should be carefully scrutinized include the F-35 aircraft, which is not fully ready for combat after 20 years of development and is still being retrofitted with costly technical fixes even as production goes forward. The aircraft is not only immensely costly to purchase, but it will be enormously expensive to operate and maintain. At up to \$1.7 trillion over its lifetime, it is the most expensive weapons program ever undertaken by the Pentagon.⁴ And the costs are growing. Bloomberg News has reported that Lockheed Martin had a 63% cost overrun on an upgrade of the cockpit computer for the F-35, a total of \$444 million. Other problems include more than 800 design flaws, engines with blades that crack too soon, and an operating cost of \$38,000-per flying hour for the Air

Ben Freeman, "Sustainable Defense: a Pentagon Spending Plan for 2021 and Beyond," Center for International Policy, December 2020, https://3ba8a190-62da-4c98-86d2-893079d87083.usrfiles.com/ugd/3ba8a1_84180a1b3cdf478f8023d8ca96cb682a.pdf

² Stockholm International Peace Research Institute, "Trends in World Military Expenditure, 2020," April 26, 2021, https://sipri.org/sites/default/files/2021-04/fs_2104_milex_0.pdf

³ Sustainable Defense Task Force Report, op. cit., p. 27.

⁴ Anthony Capaccio, "Pentagon Reportedly Estimates That It's F-35 Budget Plan is Running \$10 Billion Short Through 2025," *Bloomberg News*, September 11, 2020, <https://www.stripes.com/news/us/pentagon-reportedly-estimates-that-the-f-35-budget-plan-is-running-10-billion-short-through-2025-1.644700>

Force model.⁵ The F-35's automatic logistics system spews out so much incorrect information that it is being replaced, but the new proposed system has already developed problems. The Government Accountability Office has determined that the F-35 is simply unaffordable at the Air Force's current projected budget for the program – it will take billions of additional funding *per year* to close the affordability gap. In addition, problems with engine production and repair mean that 43% of the fleet could be grounded for lack of functioning engines by 2030.⁶

In December, House Armed Services Committee Chair Adam Smith said he was “tired of pouring money down the F-35 rathole.”⁷ Air Force Chief of Staff Gen. Charles Brown recently acknowledged that the plane could not meet its original purpose as a low-cost fighter and would have to be supplemented with a less costly plane. He referred to the plane as a being like a “Ferrari” and said, “you don’t drive your Ferrari to work every day, you only drive it on Sundays.”⁸ This is a stunning admission given original promises that the F-35 would be an affordable, lightweight fighter that would be a workhorse of U.S. air operations.

An analysis by Winslow Wheeler and Dan Grazier for the Project on Government Oversight has noted that “it should be a straightforward proposition to suspend additional F-35 appropriations for further production until Congress has reliable certifications from the Director, Operational Test & Evaluation and GAO that the F-35 can perform fully effectively and suitably and at least nominally better than the aircraft it’s supposed to replace.”⁹ A pause in the F-35 program until it can be proven effective, and that it aligns with future defense needs, would be a prudent step. If it cannot meet these requirements, the program should be phased out. Doing so could save more than \$200 billion in procurement costs that could be devoted to other priorities.¹⁰

⁵ Anthony Capaccio, “F-35 Overrun Sticks U.S. Taxpayers, Allies with \$444 Million Tab,” *Bloomberg*, <https://www.bloomberg.com/news/articles/2021-04-21/f-35-overrun-sticks-u-s-taxpayers-allies-with-444-million-tab>

⁶ United States Government Accountability Office, Testimony Before the Subcommittees on Readiness and Tactical Air and Land Forces, Committee on Armed Forces, U.S. House of Representatives, “F-35 Sustainment: Enhanced Attention to and Oversight of F-35 Affordability Are Needed,” Statement of Diana Maurer, Director Defense Capabilities and Management, April 22, 2021, <https://www.gao.gov/assets/gao-21-505t.pdf>

⁷ Aaron Gregg, “Powerful Lawmaker Calls F-35 a ‘Rathole,’ Suggests Pentagon Should Cut Its Losses,” *Washington Post*, March 5, 2021, <https://www.washingtonpost.com/business/2021/03/05/adam-smith-f35/>

⁸ David Axe, “The U.S. Air Force Just Admitted That the F-35 Has Failed,” *Forbes*, February 23, 2021, <https://www.forbes.com/sites/davidaxe/2021/02/23/the-us-air-force-just-admitted-the-f-35-stealth-fighter-has-failed/?sh=7ed91f921b16>

⁹ Winslow Wheeler and Dan Grazier, “F-35 Changes Needed While Still in Infancy,” April 7, 2021, <https://www.pogo.org/analysis/2021/04/f-35-changes-needed-while-still-in-infancy/>

¹⁰ Ibid.

A second case is the new ICBM, known officially as the Ground-Based Strategic Deterrent, or GBSD. As former Secretary of Defense William Perry has noted, ICBMs are “some of the most dangerous weapons in the world” because under current policy the president would have a matter of minutes to launch them on warning of an attack, increasing the risks of an accidental nuclear war. Northrop Grumman has received a sole source, \$13 billion contract to develop the system, which will cost at least \$100 billion to procure and \$264 billion to build and operate over its lifetime.¹¹ We can maintain a robust deterrent without building a new ICBM.

Last but not least, one can look at the question of whether to build more aircraft carriers. The latest model has cost an enormous \$13 billion to construct, and it has had serious performance issues including a failure of its launch system.¹² It will be vulnerable to high speed, long-range missiles, and the need for 11 aircraft carrier task forces is dubious at a time when our strategy should be pulling back from one of global interventionism to one that emphasizes diplomacy and looks to allies to do more in service of genuine defense needs.¹³

The third area of concern is waste, fraud, and abuse. This category ranges from overcharging for spare parts, to cost overruns on major weapons systems, to the provision of shoddy components, to criminal conduct such as the submission for reimbursement for goods and services that were never provided. An egregious case in point is TransDigm, a company took profit levels of up to 4,451 percent on spare parts provided to the Pentagon. Other examples of overcharges include the Army being forced to pay \$71 for a pin that should have cost less than a nickel, and \$80 for a drainpipe segment that should have cost \$1.41.¹⁴ In another case Boeing overcharged the government \$13 million for 18 parts. Avoiding these overcharges requires a variety of changes in the procurement process, most notably requiring the provision of certified cost and pricing information so that

¹¹ William D. Hartung, “Corrupt Bargain? – One Company’s Monopoly on the Development of Long-Range Nuclear Missiles,” Center for International Policy, September 2020, https://3ba8a190-62da-4c98-86d2-893079d87083.usrfiles.com/ugd/3ba8a1_71f1d54835f7421b8cc0e0435adfa7a6.pdf; and Anthony Capaccio, “New U.S. ICBMs Could Cost Up to \$264 Billion Over Decades,” *Bloomberg News*, October 3, 2020, <https://www.bloomberg.com/news/articles/2020-10-03/new-u-s-icbms-could-cost-up-to-264-billion-over-decades>

¹² Anthony Capaccio, “The Navy’s \$13 Billion Aircraft Carrier Had Launch System Failure,” *Bloomberg News*, June 8, 2020, <https://www.bloomberg.com/news/articles/2020-06-08/navy-s-13-billion-aircraft-carrier-had-launch-system-failure>

¹³ Robert Farley, “U.S. Navy Aircraft Carriers Are Even More Vulnerable Than We Thought,” *The National Interest*, March 6, 2020, <https://nationalinterest.org/blog/buzz/us-navy-aircraft-carriers-are-even-more-vulnerable-we-thought-130022>

¹⁴ Mandy Smithberger and Scott Amey, “In For a TransDigm, Out For Billions,” Project on Government Oversight, May 29, 2019, <https://www.pogo.org/report/2019/05/in-for-a-transdigm-out-for-billions/>; see also Department of Defense Inspector General, “Review of Parts Purchased from TransDigm, Inc.,” February 25, 2019, <https://media.defense.gov/2019/Feb/27/2002093922/-1/-1/1/DODIG-2019-060.PDF>

Pentagon contracting officers aren't flying blind in assessing prices submitted by spare parts contractors.

My colleagues at the Project on Government Oversight have done a detailed analysis of measures that should be taken to prevent price gouging in the acquisition of necessary weapons components. Their conclusion was sobering:

"The laws have contracting officers so hamstrung that it's too administratively burdensome to negotiate prices and ensure that the government – and therefore the American taxpayer – is getting a good deal. . . . Without a significant overhaul of buying laws, profiteering and waste will continue to unnecessarily increase costs for the military and syphon valuable resources from other Defense Department programs and from the warfighters."¹⁵

Fourth and finally, there is the issue of excess overhead. In this regard, the focus is often on Pentagon civilian employees, but an even larger source of potential redundancy and excess costs comes from the estimated 600,000-plus private contractors employed by the Pentagon.¹⁶ In many cases contract employees do jobs that overlap with those done by Pentagon civilians, and generally at substantially higher cost.¹⁷ The Sustainable Defense Task Force recommended cutting spending on private contractors by 15% at a potential savings of \$26 billion per year.¹⁸ This would still leave an enormous work force of roughly half a million private contractors to carry out any needed functions at the Department of Defense.

Another source of overhead comes from major weapons contractors like Lockheed Martin, Boeing, General Dynamics, Raytheon, and Northrop Grumman.

¹⁵ Smithberger and Amey, op. cit.

¹⁶ The Pentagon does not do consistent estimates of how many private contractors it employs. According to U.S. Department of Defense, Office of the Undersecretary of Defense for Acquisition, Technology, and Logistics, "Report to Congress: Fiscal Year 2014 Inventory of Contracted Services," August 31, 2015, the Pentagon employed 641,000 Full-Time Equivalent (FTE) service contractors at a cost of \$130 billion, <https://fas.org/man/eprint/contract-2014.pdf>. Spending on service contractors has risen by more than 50% since that time to \$210 billion, suggesting that the number of service contractor FTE's should be even higher. Yet a Congressional Research Service analysis – "Defense Primer: Department of Defense Contractors, February 2021," puts the contractor figure at 464,000 for FY2017, the most recent year for which a count has been made, <https://fas.org/sgp/crs/natsec/IF10600.pdf>. The difference appears to be a result of counting contractor FTEs at fewer DOD units. More rigorous accounting for service contractors and the functions they perform should be a first step towards trimming the contractor work force.

¹⁷ Paul Chassy and Scott Amey, "Bad Business: Billions of Taxpayer Dollars Wasted on Hiring Contractors," Project on Government Oversight, September 13, 2011, <https://www.pogo.org/report/2011/09/bad-business-billions-of-taxpayer-dollars-wasted-on-hiring-contractors/>. The report found that contractors hired by the government make on average 83% more than federal government employees.

¹⁸ Report of the Sustainable Defense Task Force, op. cit., p. 47.

To cite just one example, these five companies, the majority of which get the bulk of their revenues from the U.S. taxpayer, pay their CEOs an average of \$21 million per year. And the top named executives that these companies are required to provide data on received \$275 million in compensation last year, well over a quarter of a billion dollars. By comparison, the average new enlistee in our armed forces receives roughly \$40,000 in basic pay and benefits, or one five-hundredth of what a defense company CEO receives. And a general receives in the range of \$200,000 per year, or one one-hundredth of what a defense CEO receives. If the \$275 million that went to defense company executive salaries in 2020 was invested in clean energy, infrastructure, health care, or education it would create between 2,500 and 4,000 well-paying jobs.¹⁹ The disparity is staggering.

Executive pay represents a small fraction of the \$750 billion-plus per year that goes to the Pentagon and related work like nuclear warhead development at the Department of Energy, but it is indicative of a larger problem. While much of the conversation about the Pentagon budget is rightly focused on meeting the needs of the troops and their families, it is not widely known that roughly half of the Pentagon budget -- \$370 billion per year -- goes to contractors.²⁰ The top five contractors alone receive over \$150 billion in prime contracts per year, nearly one out of three dollars in awards given out by the Department of Defense each year.²¹ If we want to make Pentagon spending more efficient, we need to go where the money is. An investigation by the Government Accountability Office of contractor compensation, profits, and overhead would be a useful tool in getting contractor costs under control. Strengthening the roles of inspectors general and the independent testing office in the Pentagon would be other ways to control runaway costs.

Whatever one thinks about the proper level of Pentagon spending, I think everyone can agree that Pentagon waste benefits no one and does nothing to enhance our security. I thank the committee again for holding this important hearing and I look forward to your questions.

¹⁹ William D. Hartung, with Leila Riaz, "Executive Excess: CEO Compensation in the Arms Industry, 2020," Center for International Policy, May 2020, https://3ba8a190-62da-4c98-86d2-893079d87083.usrfiles.com/ugd/3ba8a1_53cf880837cd4b178a80adfd0f00812f.pdf

²⁰ Heidi Peltier, "The Growth of the 'Camo Economy' and the Commercialization of the Post-9/11 Wars," Costs of War Project, Brown University, June 30, 2020, <https://watson.brown.edu/costsofwar/files/cow/imce/papers/2020/Peltier%202020%20-%20Growth%20of%20Camo%20Economy%20-%20June%2030%202020%20-%20FINAL.pdf>

²¹ Federal Procurement Data System, Top 100 Contractors Report, FY2020, <https://beta.sam.gov/reports/awards/static>

PREPARED STATEMENT OF MS. MANDY SMITHBERGER



**Testimony of Mandy Smithberger, Director of the Center for Defense Information
Project On Government Oversight
before the Senate Budget Committee
on “Waste, Fraud, Cost Overruns, and Auditing at the Pentagon”
May 12, 2021**

Thank you Chairman Sanders, Ranking Member Graham, and members of the committee for inviting me to testify before you today. I’m Mandy Smithberger, the director of the Center for Defense Information at the Project On Government Oversight. POGO is a nonpartisan independent watchdog that investigates and exposes waste, corruption, abuse of power, and when the government fails to serve the public or silences those who report wrongdoing. We champion reforms to achieve a more effective, ethical, and accountable federal government that safeguards constitutional principles. Forty years ago, POGO was founded by Pentagon insiders who were concerned about the department’s procurement of ineffective and overpriced weapons. Throughout our history we have promoted wise spending and have sought improvements to better protect military, civilian, intelligence, and contractor whistleblowers.

I want to thank the committee for holding this hearing examining spending at the Department of Defense. I also want to thank the chairman for his leadership last year in offering an amendment that would have cut last year’s defense budget by 10% and shifted those funds to education, health care, and reducing poverty.¹

For today’s hearing, I’d like to particularly focus on what drives wasteful and endless Pentagon spending. While Congress and the public await President Joe Biden’s budget for fiscal year 2022, what we know so far shows that Defense Department spending continues to increase at an unsustainable rate. Significant cuts to the department’s budget are necessary to create the incentives and pressure for reforms that address how the department spends its money and how it fails to set priorities. Testimony heard before this committee nearly 40 years ago from then-Department of Defense analyst Franklin Spinney largely remains true: Pursuing gold-plated weapons has resulted in paying too much money for too little capability.² The increasingly fragile and expensive weapon systems undermine our military effectiveness.

The department needs broad reforms. Buying unproven weapon systems in quantity before testing is complete, awarding contracts to companies with histories of waste and misconduct, and giving disproportionate funding to an agency that is years away from being able to pass an audit

¹ Senator Bernie Sanders, “Sanders Calls on Senate to Reject ‘Exploding’ Military Budget, Invest in Human Needs,” Press Release, June 30, 2020, <https://www.sanders.senate.gov/press-releases/sanders-calls-on-senate-to-reject-exploding-military-budget-invest-in-human-needs/>

² Wesley G. Pippert, “A Defense Department systems analyst, reporting on his detailed....,” UPI, February 25, 1983, <https://www.upi.com/Archives/1983/02/25/A-Defense-Department-systems-analyst-reporting-on-his-detailed/4355414997200/>

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wastes taxpayer dollars and reduces overall readiness.³ The only way there will ever be reform is if there is accountability for failed programs and wasted funds. That accountability must include real budget consequences. Throwing even more money at the department will only make the problems worse.

There are important lessons that can be learned by looking at what goods and services the department buys and how it buys them. The department's most expensive program—the F-35 Joint Strike Fighter—is an instructive case study of current problems and their expensive consequences.

The F-35: A Case Study in Problems with What the Department Buys

The F-35 was sold to the public as a relatively inexpensive fighter that would replace the A-10 and F-16 in the Air Force, the Harrier and F-18 in the Marine Corps, and the F-18 in the Navy.⁴ Each new plane would cost between \$40 million and \$50 million, and the total cost of developing and producing the aircraft would come to \$200 billion.⁵ Twenty years later the costs have doubled, and the department is reviewing whether the program will be able to affordably meet our national security needs.⁶

The sad saga of how the F-35 developed into the deeply flawed program it is today is complicated, but most of the problems can be boiled down to three things: complexity, concurrency, and intellectual property.

When it comes to what the Pentagon buys, unnecessary complexity is certainly one of the biggest cost drivers. Much of the complexity in weapon systems is based on overly optimistic, and often self-serving, assumptions and promises from contractors about being able to trade technology for personnel. In the F-35 program, this complexity is one of the most significant challenges to resolving problems identified in testing and modernization of the fleet.⁷ In the end, it adds considerably to the cost of a program and harms national security.

Another significant problem is concurrency—the overlap of production and testing. The department consistently fails to “fly” a system before they buy it. The F-35 program exemplifies

³ Richard Sisk, “After 3 Failures, Pentagon Now Says It Won’t Be Able to Produce a ‘Clean’ Audit Until 2027,” *Military.com*, November 17, 2020. <https://www.military.com/daily-news/2020/11/17/after-3-failures-pentagon-now-says-it-wont-be-able-produce-clean-audit-until-2027.html>

⁴ Jeremiah Gertler, Congressional Research Service, *F-35 Joint Strike Fighter (JSF) Program*, RL30563 (May 27, 2020), 2–4. <https://fas.org/sgp/crs/weapons/RL30563.pdf>

⁵ “Lockheed awarded contract,” *CNN Money*, October 26, 2001. <https://money.cnn.com/2001/10/26/companies/strikefighter/>

⁶ Dan Grazier, “Selective Arithmetic to Hide the F-35’s True Costs,” Project On Government Oversight, October 21, 2020. <https://www.pogo.org/analysis/2020/10/selective-arithmetic-to-hide-the-f-35s-true-costs/>; Paul McLeary, “New Hicks Memo Sets Acquisition, Force Posture 2022 Budget Priorities,” *Breaking Defense*, February 24, 2021. <https://breakingdefense.com/2021/02/exclusive-hicks-memo-sets-2022-budget-priorities/>

⁷ Dan Grazier, “Uncorrected Design Flaws, Cyber-Vulnerabilities, and Unreliability Plague the F-35 Program,” Project On Government Oversight, March 24, 2020. <https://www.pogo.org/analysis/2020/03/uncorrected-design-flaws-cyber-vulnerabilities-and-unreliability-plague-the-f-35-program/>; Dan Grazier, “Is the F-35 Program at a Crossroads?” Project On Government Oversight, February 23, 2021. <https://www.pogo.org/analysis/2021/02/is-the-f-35-program-at-a-crossroads/>

the costs and headaches of failing to follow this common-sense principle. Frank Kendall, who was then in charge of Pentagon acquisition and was recently nominated to be Air Force Secretary, called his predecessors' decision to produce hundreds of the jets before the testing was complete "acquisition malpractice."⁸ At one point the costs of retrofitting the aircraft already in hangars to correct problems later uncovered during testing seemed so high that the department contemplated leaving \$21 billion worth of "concurrency orphan" jets without the upgrades necessary to make them fully combat capable.⁹

Failing to secure the intellectual property rights for systems the department pays to develop is also a significant problem.¹⁰ In the case of the F-35, Lockheed Martin controls the technical data rights, including design details and software code.¹¹ In 2014 the Government Accountability Office reported to Congress that the program's inability to access this information limits the government's ability to control costs. It makes it more difficult to bring some maintenance work inhouse, and stifles contractor competition and the government's ability to compete that maintenance work through support contracts to other vendors.¹² There is a growing understanding that the government must secure more of these rights, but implementation remains delayed. The department is apparently taking this issue more seriously: The Government Accountability Office reported in its most recent report on the aircraft that the F-35 program is in the process of developing its intellectual property strategy for the program.¹³ Still, the F-35 program has yet to complete that strategy and is a long way from securing these rights. Moreover, we expect to see significant industry pushback because, as *Defense One* pointed out, these reforms are "dangerous" to contractors' business models.¹⁴ For the department to be successful in securing these rights, they will need support from Congress.

At the beginning of the F-35 program, the public image of the aircraft was that it would be "more Chevrolet than Porsche."¹⁵ A lot has changed since then. The department's own cost data shows each variant of the F-35 costs more than \$100 million per aircraft.¹⁶ Testing remains incomplete, but Lockheed Martin has already delivered 365 F-35s to the military services, with taxpayers on the hook for 733 as of March 2021.¹⁷ The program's high operational costs and its low

⁸ Lee Ferran, "US Weapons Man: F-35 Fighter Plan was 'Acquisition Malpractice,'" *ABC News*, February 7, 2012, <https://abcnews.go.com/Blotter/35-fighter-plan-acquisition-malpractice-pentagon-official/story?id=15530008>

⁹ Dan Grazier, "\$21 Billion Worth of F-35 Concurrency Orphans?" Project On Government Oversight, October 12, 2017, <https://www.pogo.org/analysis/2017/10/21-billion-worth-of-f-35-concurrency-orphans/>

¹⁰ Senator Chuck Grassley, "Grassley on Price Gouging at the Pentagon," (speech, Senate floor, Washington, DC, May 15, 2019), <https://www.grassley.senate.gov/news/news-releases/grassley-price-gouging-pentagon>

¹¹ Dan Grazier, "The F-35 and the Captured State," Project On Government Oversight, June 10, 2019, <https://www.pogo.org/analysis/2019/06/the-f-35-and-the-captured-state/>

¹² Government Accountability Office, *F-35 Sustainment: Need for Affordable Strategy, Greater Attention to Risks, and Improved Cost Estimates*, GAO-14-778 (September 23, 2014), 22, <https://www.gao.gov/assets/gao-14-778.pdf>

¹³ Diana Maurer, Government Accountability Office, *F-35 Sustainment: Enhanced Attention to and Oversight of F-35 Affordability Are Needed*, GAO-21-505T (April 22, 2021), 10, <https://www.gao.gov/assets/gao-21-505t.pdf>

¹⁴ Patrick Tucker, "Free the Data: Vice Chiefs Launch an Acquisition Crusade," *Defense One*, April 20, 2021, <https://www.defenseone.com/technology/2021/04/free-data-vice-chiefs-launch-crusade-fix-key-acquisition-problem/173499/>

¹⁵ James Dao and Laura M. Holson, "Lockheed Wins \$200 Billion Deal for Fighter Jet," *New York Times*, October 27, 2001, <https://www.nytimes.com/2001/10/27/us/lockheed-wins-200-billion-deal-for-fighter-jet.html>

¹⁶ Dan Grazier, "Selective Arithmetic to Hide the F-35's True Costs" [see note 6].

¹⁷ Dan Grazier and Winslow Wheeler, "F-35 Changes Needed While Still in Infancy," Project On Government Oversight, April 7, 2021, <https://www.pogo.org/analysis/2021/04/f-35-changes-needed-while-still-in-infancy/>

availability rate raise serious concerns about whether we have enough F-35s available for combat in high-end conflicts.¹⁸

Rather than having a workhorse Chevy of a fighter jet, the chief of staff for the Air Force has indicated the F-35 is more of a Porsche to be used sparingly.¹⁹

While there are many lessons to be drawn from the F-35 program, there are a few particularly important ones that will reduce the corrupting influence of the military-industrial complex over *what* the Pentagon buys:

- **Fly before you buy.** While we understand the need to speed up the acquisition process, putting immature and unproven technology into production is costly and undermines readiness. The cost overruns eat into other department priorities, including modernization, and create preventable operational risks. Additionally, as the National Commission on Military Aviation Safety found, unanticipated maintenance challenges with the F-35 fleet took resources away from maintaining other aircraft in the fleet.²⁰
- **Insist on good data from the beginning.** It is a persistent problem in weapon acquisition programs that the price of programs increase even as the promised capabilities fail to materialize. Preventing this from occurring means getting as much right as possible at the beginning of the program through a process that meaningfully analyzes alternatives for new systems, leverages competition and prototyping, and enables oversight and transparency throughout the process.²¹
- **Beware complexity.** As I discuss below, sustainment contracts are becoming a major cost-driver on weapon systems. While a system's complexity can be profitable for the companies that have the market cornered because of their expertise in maintaining the system, it also drives down readiness rates.²² The reality is we end up paying a premium for a less effective military.
- **Secure intellectual property rights to enhance competition.** Congress should strengthen protections for taxpayers' rights to intellectual property information paid for through government awards, and make it a presumption that a contracting officer will secure these rights up front unless a contractor obtains a waiver. Any waivers should be sent to the appropriate oversight committees and be evaluated by the Government Accountability Office.
- **Halt orders for new F-35s.** For the F-35 program specifically, we urge Congress to put a hold on purchasing any more F-35s until operational testing is complete and the director

¹⁸ John A. Tirpak, "Make-or-Break Time for the F-35," *Air Force Magazine*, April 23, 2021.

<https://www.airforcemag.com/article/make-or-break-time-for-the-f-35/>

¹⁹ Thomas Newdick, "Air Force Boss Wants Clean-Sheet Fighter That's Less Advanced Than F-35 to Replace F-16," *The Drive*, February 18, 2021. <https://www.thedrive.com/the-war-zone/39316/air-force-boss-wants-clean-sheet-fighter-thats-less-advanced-than-f-35-to-replace-f-16>

²⁰ National Commission on Military Aviation Safety, *Report to the President and Congress of the United States*, (December 1, 2020), 39. https://www.militaryaviationsafety.gov/report/NCMAS_Final_Report.pdf

²¹ Winslow Wheeler and Tom Christie, "Refusing to Misunderstand the Defense Acquisition Problem," Project On Government Oversight, October 7, 2014. <https://www.pogo.org/investigation/2014/10/refusing-to-misunderstand-defense-acquisition-problem/>

²² Dan Grazier, "The Complexity Vortex," Project On Government Oversight, June 6, 2018. <https://www.pogo.org/investigation/2018/06/complexity-vortex/>

of operational test and evaluation declares every variant fully combat effective and fully suitable for use. Buying more F-35s before testing is complete exacerbates the problems already seen in the fleet, and raises the costs of retrofits and design changes.²³

The conventional wisdom is that the F-35 program is politically untouchable due to sunk costs and because it has contracts spread out across the country.²⁴ It's difficult to come up with a bigger indictment of our acquisition approach than continuing to buy a weapon because our political system is too corrupt to change course. We sincerely hope the conventional wisdom is wrong and that our political leaders can both address the F-35 program's problems and prevent its mistakes from being repeated in the future.

An Acquisition System Built to Increase Costs

One of the largest drivers of increased spending is how the defense budget is often used for self-dealing and enrichment. Our defense budget should be based on what we need to keep our country safe. But too often conflicts of interest, particularly for senior Pentagon officials who go on to work for the defense contractors delivering goods and services to the government, are what drive the budget. In the most recent government review of this issue, a Government Accountability Office survey of contractors found that 52 contractors employed 2,435 former Department of Defense officials who had "previously served as generals, admirals, senior executives, program managers, contracting officers, or in other acquisition positions which made them subject to restrictions on their post-DOD employment."²⁵ POGO's own 2018 investigation found that from 2008 to 2018 at least 380 high-ranking department officials and military officers became lobbyists, board members, executives, or consultants for defense contractors within two years of leaving public service.²⁶ This revolving door results in the appearance (and in some instances, documented evidence) of officials confusing what is in the best interest of our national security with what is in the best financial interests of defense contractors—excessively large Pentagon budgets, endless wars, and overpriced weapon systems.

While I've already discussed some of the major challenges in how the department purchases major weapon systems, it's also important to examine how the department gets fleeced even when it's buying a pin or a drainpipe.²⁷ We've tracked spare parts overcharges for decades, and the issue is not getting better. The overpriced plastic toilet seat covers that cost \$640 in the 1980s now cost \$10,000.²⁸ While TransDigm became appropriately infamous for charging profit

²³ Dan Grazier and Winslow Wheeler, "F-35 Changes Needed While Still in Infancy" [see note 17].

²⁴ "The Fighter Jet That's Too Pricey to Fail," *New York Times*, March 12, 2021.

<https://www.nytimes.com/2021/03/12/opinion/f-35-fighter-jet-cost.html>

²⁵ Government Accountability Office, *Defense Contracting: Post-Government Employment of Former DOD Officials Needs Greater Transparency*, GAO-08-485 (May 21, 2008), 4, <https://www.gao.gov/assets/gao-08-485.pdf>

²⁶ Mandy Smithberger, Project On Government Oversight, *Brass Parachutes: The Problem of the Pentagon Revolving Door* (November 5, 2018), <https://www.pogo.org/report/2018/11/brass-parachutes/>

²⁷ Neil Gordon, "Spare Us Already: Investigators Find More Instances of Gross Overbilling on Defense Contracts," Project On Government Oversight, August 1, 2011, <https://www.pogo.org/analysis/2011/08/spare-us-already-investigators-find-more-instances-of-gross-overbilling-on-defense-contracts/>

²⁸ Jack Smith, "\$37 screws, a \$7,622 coffee maker, \$640 toilet seats; suppliers to our military just won't be oversold," *Los Angeles Times*, July 30, 1986, <https://www.latimes.com/archives/la-xpm-1986-07-30-vw-18804-story.html>; Dan Grazier, "Why Do Air Force Planes Need \$10,000 Toilet Seat Covers?" *The American*

margins as high as 4,000%, other contractors regularly engage in similar practices to take advantage of taxpayers: Reports from the Department of Defense inspector general show the department paid excessive amounts for spare parts from Boeing, Lockheed Martin, Raytheon, and other top defense contractors.²⁹ Overcharges to the government have included paying \$2,286 for a landing gear that should have cost \$10; \$71 for a pin that should have cost less than a nickel; and \$8,124 for a bevel gear that should have cost \$445.³⁰

One of the root causes of these overcharges is misuse of commercial item designations, which makes it difficult for the government to obtain cost or pricing information to determine whether the prices contractors are charging are reasonable.³¹ When an item is designated as commercial, contractors generally do not have to provide cost or pricing information to the government. POGO supports the department buying genuinely commercial items, especially when there is competition, but determining whether something is truly commercial should be based on whether the item is sold on the open market to the public in substantial quantities. It can be difficult for the public to know how much we are overcharged for these parts because the department and contractors consider those overcharges to be commercial proprietary information.³² If something were truly commercial, prices wouldn't be secret. Recent changes to acquisition laws have exacerbated the problem, making it difficult for the government to obtain cost or pricing data once another governmental entity has already accepted something is commercial.³³ Worse, once the government has accepted the prices, it can be difficult for the government to secure a refund, if auditors find there were overcharges, because companies aren't actually breaking any laws.³⁴ Reforming the definition of "commercial item," as the Obama administration previously

Conservative, June 14, 2018. <https://www.theamericanconservative.com/articles/why-do-air-force-planes-need-10000-toilet-seat-covers/>

²⁹ Aaron Gregg, "Military parts supplier TransDigm draws scrutiny over prices," *Washington Post*, June 8, 2019. <https://www.washingtonpost.com/business/2019/06/08/military-parts-supplier-transdigm-draws-scrutiny-over-prices/>; Project On Government Oversight, "Department of Defense Inspector General Reports Questioning Spare Part Costs," May 29, 2019. <https://www.documentcloud.org/documents/6152472-IG-Reports-Questioning-Spare-Part-Costs>; Scott Amey and Mandy Smithberger, Project On Government Oversight, *In for a TransDigm, Out for Billions* (May 29, 2019). <https://www.pogo.org/report/2019/05/in-for-a-transdigm-out-for-billions/>

³⁰ Neil Gordon, "New Details Emerge in Boeing Spare Parts Overbilling," Project On Government Oversight, June 21, 2013. <https://www.pogo.org/analysis/2013/06/new-details-emerge-in-boeing-spare-parts-overbilling/>; Neil Gordon, "Spare Us Already" [see note 27]; Nick Schwellenbach, "Leaked Audit: Boeing Overcharged Army Up to 177,000 Percent on Helicopter Spare Parts," Project On Government Oversight, June 28, 2011. <https://www.pogo.org/investigation/2011/06/leaked-audit-boeing-overcharged-army-up-to-177000-percent-on-helicopter-spare-parts/>; Mandy Smithberger, "The Unredacted Truth About Spare Parts Overcharges," Project On Government Oversight, February 23, 2015. <https://www.pogo.org/analysis/2015/02/unredacted-truth-about-spare-parts-overcharges/>

³¹ For more on this topic, see Richard Loeb, *Caveat Emptor: Reversing the Anti-Competitive and Over-Pricing Policies that Plague Government Contracting*, American Economic Liberties Project Working Paper Series On Corporate Power #4 (June 2020). https://www.economicliberties.us/wp-content/uploads/2020/06/Working-Paper-Series-on-Corporate-Power_4.pdf

³² Neil Gordon, "A Blatant Example of Pointless Government Secrecy," Project On Government Oversight, July 8, 2014. <https://www.pogo.org/analysis/2014/07/blatant-example-of-pointless-government-secrecy/>

³³ Scott Amey and Mandy Smithberger, *In for a TransDigm, Out for Billions* [see note 29]; Department of Defense Inspector General, *Review of Parts Purchased From TransDigm Group, Inc.* (February 25, 2019), p. 93. <https://media.defense.gov/2019/Feb/27/2002093922/-1/-1/1/DODIG-2019-060.PDF>

³⁴ David Dayen, "How Rep. Ro Khanna Got a Price-Gouging Defense Contractor to Return \$16.1 Million to the Pentagon," *The Intercept*, May 28, 2019. <https://theintercept.com/2019/05/28/ro-khanna-transdigm-refund-pentagon/>; Richard Loeb, *Caveat Emptor*, 4 [see note 31].

proposed, is an overdue reform that will help reduce overpayments and waste.³⁵ At the very least, certified cost or pricing data should be provided to the government in any procurement that is sole source, even in instances when goods and services are claimed to be commercial.

While many people think of the Department of Defense as being in the business of buying planes, tanks, and ships, nearly 50% of what the department buys is services. Last year the department spent nearly \$204 billion on service contracts.³⁶ As is the case for spare parts, there are instances of outrageous overcharges—like bilking the government for a 100-hour workday.³⁷ Tracking the size and scope of the service workforce, however, has been a challenge. The main way to track that information has been through service contractor inventories. The most recent publicly available data clearly breaking down costs and contractor full time equivalents across the department is from fiscal year 2015.³⁸

It is essential to better track this data because service contract spending provides one of the most significant opportunities for savings. POGO's review of service contracting data found contractor employees cost nearly three times more than the average civilian employee.³⁹ The Defense Business Board also highlighted opportunities for cost savings for service contractors in its proposal for ways the department could save \$125 billion over five years.⁴⁰ The opportunity for savings was confirmed for a third time in a subsequent review by the Pentagon's cost estimating shop.⁴¹

³⁵ Scott Amey, "Defense Department's New Definition of 'Commercial Item' Will Save Money," Project On Government Oversight, May 2, 2012. <https://www.pogo.org/analysis/2012/05/defense-departments-new-definition-of-commercial-item-will-save-money/>

³⁶ "Spending Explorer" USASpending, data for Department of Defense, service contracting and research and development contracts, FY 2020.

<https://www.usaspending.gov/search/?hash=9b0923e53d6f7600c5b407bdf43b728a> (accessed May 7, 2021)

³⁷ Neil Gordon, "The 100-Hour Workday is the New \$435 Hammer," Project On Government Oversight, October 19, 2015. <https://www.pogo.org/analysis/2015/10/100-hour-workday-is-new-435-hammer/>

³⁸ Office of the Assistant Secretary of Defense for Manpower & Reserve Affairs, *Defense Manpower Requirements Report* (December 2018), 133-135.

https://prhome.defense.gov/Portals/52/Documents/MRA_Docs/TFM/Reports/Final%20FY18%20DMRR%2011Dec2017.pdf?ver=2018-02-03-141625-140. Incomplete data was provided to Congress in 2018. Office of the Under Secretary of Defense for Acquisition and Sustainment, *Summary Report to Congress of the Department of Defense Fiscal Year 2016 Inventory of Contracted Services* (February 2018), 1.

<https://www.documentcloud.org/documents/20697443-fy-2016-inventory-of-contracted-services-for-the-department-of-defense>. The inventories available through the Department's Defense Pricing and Contracting website are significantly less useful and transparent for oversight.

https://www.acq.osd.mil/dpap/cpic/cp/inventory_of_services_contracts.html

³⁹ Scott Amey, "DoD Contractors Cost Nearly 3 Times More than DoD Civilians," Project On Government Oversight, November 30, 2012. <https://www.pogo.org/analysis/2012/11/dod-contractors-cost-nearly-3-times-more-than-dod-civilians/>

⁴⁰ Defense Business Board, *Transforming DoD's Core Business Processes for Revolutionary Change* (January 22, 2015), 10. <https://apps.washingtonpost.com/g/documents/investigations/the-defense-business-boards-2015-study-on-how-the-pentagon-could-save-125-billion/2236/>

⁴¹ Cost Assessment and Program Evaluation, Office of the Secretary of Defense, *Comparing the Cost of Civilians and Contractors: Performance of Comparable DoD Functions* (April 2017).

https://admin.govexec.com/media/gbc/docs/pdfs_edit/dodcontractorcivilianpart1.pdf and https://admin.govexec.com/media/gbc/docs/pdfs_edit/dodcontractorcivilianpart2.pdf

While there were some promising efforts by the Army to create systems that would help officials make more cost-effective decisions, departmentwide efforts to create similar systems received significant pushback from within the department and eventually stalled.⁴² Congress also exacerbated the problem by reducing what the department must report through the inventories.⁴³

Finally, we need to make sure that taxpayer dollars do not go to risky contractors.⁴⁴ Currently, companies that waste taxpayer funds or defraud the government continue to receive contracts. In 2018, the Department of Defense reported to Congress that it had obligated \$334.3 billion over five years to contractors the government alleged to have defrauded taxpayers.⁴⁵ The government could make more informed decisions about awarding contracts if reporting and transparency of responsibility information were improved.⁴⁶ Chairman Sanders, it is thanks to you that the government's Federal Awardee Performance and Integrity Information System database is public. However, it remains a shadow of what it should be.⁴⁷ As a result, POGO continues to maintain our Federal Contractor Misconduct Database, largely so that government contracting professionals can easily track the publicly available information about risky contractors, and can better identify contractors with clean records.⁴⁸

The department is also vulnerable to corruption because of the opaque nature of beneficial ownership information. Beneficial ownership refers to the person who really owns, controls, and financially benefits from an entity at the point of a company's formation and throughout the

⁴² Scott Amey, "In Carter We Trust?" Project On Government Oversight, March 24, 2015. <https://www.pogo.org/analysis/2015/03/in-carter-we-trust/>; Letter from Project On Government Oversight Executive Director Danielle Brian to Defense Secretary Chuck Hagel about DOD Effort to Kill Beneficial Service Contract Inventory System, November 25, 2014. <https://www.pogo.org/letter/2014/11/pogo-highlights-dod-effort-to-kill-beneficial-service-contract-inventory-system/>

⁴³ Public comment letter from Project On Government Oversight General Counsel Scott Amey about DOD proposed rule, "Defense Federal Acquisition Regulation Supplement: Data Collection and Inventory for Services Contracts (DFARS Case 2018-D063)," August 4, 2020. <https://www.pogo.org/letter/2020/08/pogo-opposes-defense-department-proposed-service-contract-inventory-rule/>; Government Accountability Office, *Service Acquisitions: DOD's Report to Congress Identifies Steps Taken to Improve Management, But Does Not Address Some Key Planning Issues*, GAO-21-267R (February 22, 2021), 3-4. <https://www.gao.gov/assets/gao-21-267r.pdf>; Government Accountability Office, *DOD Contracted Services: Long-Standing Issues Remain about Using Inventory for Management Decisions*, GAO-18-330 (March 29, 2018), 2. <https://www.gao.gov/assets/gao-18-330.pdf>

⁴⁴ Federal Acquisition Regulation Subpart 9.103.

⁴⁵ "The total number of individuals or entities indicted for, settled charges of, been fined by any Federal department or agency for, or have been convicted of procurement fraud, involved 168 contractors. The total number of contract actions is 15,963,513 with a total value of contract obligations equal to \$334,305,246,152. Of the total number of contract actions, 94 percent are from one business entity, while 76 percent of the total contract obligations are from two major defense companies. The remaining 165 contractors accounted for 4 percent of the total contract actions and 24 percent of the total contract obligations." Department of Defense, *Report to Congress: Section 889 of the FY 2018 NDAA Report on Defense Contracting Fraud* (December 2018), 3. <https://fas.org/man/eprint/contract-fraud.pdf>

⁴⁶ *Past performance and suspensions and debarments: Hearing before the Commission on Wartime Contracting* (February 28, 2011) (testimony of Scott Amey, General Counsel of the Project On Government Oversight). <https://www.pogo.org/testimony/2011/02/testimony-of-pogos-scott-amey-on-deficient-contractor-accountability-leaves-agencies-and-taxpayers-at-risk/>

⁴⁷ Matthew Weigelt, "New law puts contractor performance in the public spotlight," *Washington Technology*, August 5, 2010. <https://washingtontechnology.com/articles/2010/08/05/obama-opens-fapiis-to-the-public.aspx>

⁴⁸ Project On Government Oversight, "Federal Contractor Misconduct Database." <https://www.contractormisconduct.org/>

company's existence. Anonymous corporations present corruption risks and can undermine our national security. A 2019 Government Accountability Office report reviewed 32 resolved cases with the Department of Defense in which contractors provided false information about their ownership or corporate structure. Those cases revealed that, in addition to misrepresenting ownership information, the companies had been accused or found guilty of a litany of misdeeds: price gouging; providing poor-quality goods and services; abusing programs intended for small businesses owned by "service-disabled veterans, women, minorities, or economically and socially disadvantaged individuals"; and improperly disseminating sensitive military information.⁴⁹ To combat the risks posed by shell corporations, Congress passed a provision in the National Defense Authorization Act to strengthen public disclosure of beneficial owners, though we think this provision would be even more effective if more contractors were encompassed, if language that only requires disclosure if "practicable" were removed, and if corporations are required to update their beneficial ownership information.⁵⁰

There are a number of steps Congress should take to address the root causes of wasteful and risky defense spending by reforming *how* the Pentagon buys goods and services:

- **Stop the revolving door between the Pentagon and the defense industry.** The importance of the Defense Department's work demands that their decision-making be beyond reproach and free from even the perception of corruption. Right now, senior Pentagon officials only have to wait a short time after leaving service, if at all, before they can go to work for defense contractors or other entities with a financial interest in the department's policies and decisions. Congress should extend the cooling off periods and close loopholes that betray the public's trust. Additionally, Congress should require the department to make public its database of officials who have gone to work for the defense industry.
- **Reform acquisition laws to empower the department to make smart buying decisions.** Preventing overcharges on spare parts begins with returning the definition of commercial items to what it was before 1994: goods or services sold in substantial quantities to the general public. Congress should also restore the Truth in Negotiations Act to require certified cost or pricing data for contracts exceeding \$500,000 where there is not adequate price competition.⁵¹ Especially in a sole-source environment, the department must be able to access certified cost and pricing data that is current, complete, and accurate.

⁴⁹ Government Accountability Office, *Defense Procurement: Ongoing DOD Fraud Risk Assessment Efforts Should Include Contractor Ownership*, GAO-20-106 (November 25, 2019), 23. <https://www.gao.gov/assets/gao-20-106.pdf>; Neil Gordon, "Contractors Use Shell Games to Hide Owners, Cheat Taxpayers," Project On Government Oversight, December 18, 2019. <https://www.pogo.org/analysis/2019/12/contractors-use-shell-games-to-hide-owners-cheat-taxpayers/>

⁵⁰ Section 885, William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (Public Law 116-283); Tim Stretton, "Defense Bill Includes Two Landmark Transparency Provisions," Project On Government Oversight, January 21, 2021. <https://www.pogo.org/analysis/2021/01/defense-bill-includes-two-landmark-transparency-provisions/>

⁵¹ 10 U.S.C. § 2306a. 41 U.S.C. chapter 3; The current Truth in Negotiations Act threshold is \$2,000,000. "Get Ready: The Truth In Negotiations Threshold is about to Jump to \$2 Million!" Cherry Bekaert, June 15, 2018. <https://www.cbh.com/guide/articles/get-ready-the-truth-in-negotiations-act-threshold-is-about-to-jump-to-2-million/>

- **Increase transparency in and curtail overuse of service contracting.** Congress must require the department to create cost modeling systems that take into consideration all relevant cost data, including administrative costs.⁵² Those systems then must be used by the department when making decisions about whether to contract out services, and the process should include an analysis of whether that service can be performed by existing government resources. The department should also be required to annually provide to the public aggregated data on total costs and contractor full time equivalents. As is already done for most federal employees, contractor inventories should include all information relating to the type and nature of work being performed by service contractor personnel, including compensation and the location where the work is principally conducted.⁵³
- **Enhance the government's tools to ensure taxpayer dollars only go to responsible contractors.** Awarding contracts to entities that have defrauded the government or violated laws or regulations undermines the public's confidence in a fair process and exacerbates distrust in our government. It also results in bad deals for the government and undermines effectiveness. Congress should continue to expand the information made available to the public in contractor responsibility databases, including all civil, criminal, and administrative proceedings resulting in the payment of monetary fines, penalties, reimbursement, restitution, damages, or settlements. Protecting the integrity of the system requires both the government and companies to step up. The government must carefully review contractors' performance and responsibility track records before awarding a contract, and make sure contractor information databases are accurate, up to date, and accessible. Contractors must make timely and accurate reports of all required data fields. Failure to do so must bring consequences.

The importance of the Department of Defense's mission, along with its significant taxpayer resources, means that it must be a model of efficiency, accountability, and transparency. Without reform of the acquisition system to better protect taxpayers, we will continue to see waste, fraud, and abuse.

Weak Financial Management

The Department of Defense's inability to pass a financial audit shows how the Pentagon is not held to the same standard of accountability as other federal agencies. The department's financial management has been on the Government Accountability Office's High Risk list since 1995,⁵⁴ and that weak management has contributed to problems like the Army's inability to account for

⁵² *Contractors: How Much Are They Costing the Government?: Hearing before the Senate Homeland Security and Governmental Affairs' Subcommittee on Government Contracting*, 112th Cong. (March 28, 2012) (testimony of Scott Amey, General Counsel of the Project On Government Oversight). <https://www.pogo.org/testimony/2012/03/pogos-scott-amey-testimony-on-contractors-how-much-are-they-costing-government/>

⁵³ Richard Loeb, *Caveat Emptor* [see note 31].

⁵⁴ Government Accountability Office, *DOD Financial Management*. <https://www.gao.gov/highrisk/dod-financial-management> (accessed May 7, 2021)

trillions in tax dollars.⁵⁵ While the department has improved somewhat over the years, they still do not expect to be able to pass an audit until 2027.⁵⁶

It's also clear that the department's cost forecasting greatly overestimates the department's real needs, as evidenced by the billions of dollars the department has in excess unobligated balances. I want to thank Chairman Sanders for his work on this issue. At your request the Government Accountability Office researched the matter. They found that from fiscal year 2013 to fiscal year 2018 the department returned \$80 billion in canceled funds.⁵⁷ In the last administration, the president used those unobligated balances to pay for programs without congressional approval. POGO, the Friends Committee on National Legislation, and Women's Action for New Directions found the department returned another \$15 billion in fiscal year 2019.⁵⁸ Moreover, it also appears that this money is used as an offset for additions proposed in appropriations bills. We urge the committee to continue to conduct oversight on this issue by requiring the Government Accountability Office to provide annually its estimates of unobligated balances, expired funds, and canceled funds. This information would be extremely helpful in informing priorities and allocation levels for budget resolutions.

Discouraging the Wish List Habit

We also urge the committee to look at how service and command wish lists, referred to as "unfunded priorities" lists, reduce budget discipline and increase wasteful spending. For those unfamiliar with the practice, many components of the Defense Department produce two budgets for Congress: One approved by the department's civilian leaders as part of the annual budget submission, and a second of additional programs that didn't make the cut. When the late Senator John McCain was chair of the Senate Armed Services Committee he criticized this practice as a budget gimmick and a "backdoor way of getting things done."⁵⁹ Unfortunately this practice has only become worse over time, with Congress codifying into law the requirement for components to produce two lists.

An ideal budget process at the Department of Defense or any other federal agency would establish clear priorities for spending and program execution. By telling Department of Defense components they'll have two bites at the apple, Congress is encouraging the already palpable pressure and incentives to increase the department's budget. Congress should eliminate the statutory requirement. In the absence of legislative change, there is another way Congress can address this matter. Prior to this requirement, then-Defense Secretary Robert Gates discouraged

⁵⁵ Department of Defense Inspector General, *Army General Fund Adjustments Not Adequately Documented or Supported*, (July 26, 2016), <https://media.defense.gov/2016/Jul/26/2001714261/-1/-1/1/DODIG-2016-113.pdf>

⁵⁶ Mike Stone, "Pentagon fails audit again, could pass around 2027, comptroller says," Reuters, November 16, 2020, <https://www.reuters.com/article/us-usa-pentagon-auditor/pentagon-fails-audit-yet-again-could-pass-around-2027-comptroller-says-idUSKBN27X03P>

⁵⁷ Tony Bertuca, "DOD draws fire from Sanders for returning \$80 billion in funding," *Inside Defense*, March 6, 2019, <https://insidedefense.com/daily-news/dod-draws-fire-sanders-returning-80b-funding>

⁵⁸ Daniel Spinelli, "Progressives Want Congress to Stop Bailing out the Pentagon During the Pandemic," *Mother Jones*, April 22, 2020, <https://www.motherjones.com/politics/2020/04/progressives-pentagon-defense-department-coronavirus/>

⁵⁹ Marcus Weinberger and Molly O'Toole, "The Pentagon's Weapon Wish Lists Could Disappear," *Defense One*, February 4, 2015, <https://www.defenseone.com/policy/2015/02/pentagons-weapon-wish-lists-could-disappear/104619/>

the practice, which the Army's then-vice chief of staff, General Peter Chiarelli, said encouraged closer scrutiny and a significant reduction in the size and costs of the wish lists.⁶⁰ With the aim of increasing fiscal discipline, Congress should urge Defense Secretary Lloyd Austin III to do the same. This reform was supported by 16 civil society groups from across the political spectrum.⁶¹ Congress should also ask for wish lists to include recommended offsets within the component's own budget to pay for additional projects that did not make it into the budget request. We hope the committee will further impress upon the Secretary the need to curtail this insidious and expensive practice.

Conclusion

To the maximum extent possible there should be a process that encourages the president and Congress to set responsible fiscal goals and make tough choices about priorities. Once those goals and priorities are set, we need to make sure the department has the tools it needs to ensure funds are spent efficiently and responsibly. Thank you again for the opportunity to testify. I am happy to answer any questions you may have.

⁶⁰ Mark Thompson, "Gates Takes Aim at the Military's Spending Wish Lists," *Time*, July 17, 2009, <http://content.time.com/time/nation/article/0,8599,1911152,00.html>

⁶¹ Letter from National Taxpayers Union, Project On Government Oversight, American Friends Service Committee, CODEPINK, Common Defense, Council for a Livable World, FreedomWorks, National Priorities Project, Public Citizen, R Street Institute, Taxpayers for Common Sense, Taxpayers Protection Alliance, Truth in Accounting, the United Methodist Church - General Board of Church and Society, Win Without War, and Women's Action for New Directions (WAND) to Defense Secretary Austin, April 19, 2021, <https://www.ntu.org/library/doclib/2021/04/L21-04-19-NTU-and-POGO-Coalition-Letter-on-DoD-Wish-Lists.pdf>

PREPARED STATEMENT OF MR. ROGER ZAKHEIM



TESTIMONY BEFORE THE SENATE BUDGET COMMITTEE

HEARING ON WASTE, FRAUD, COST OVERRUNS, AND AUDITING AT THE
PENTAGON

May 12, 2021

Statement by Mr. Roger Zakheim

Director, Ronald Reagan Institute

Chairman Sanders, Ranking Member Graham, and distinguished members of the Committee, thank you for inviting me to testify today on waste, fraud, cost overruns, and auditing at the Pentagon.

The White House's recently released Interim National Security Strategic Guidance reaffirmed that the U.S. faces a "growing rivalry" with a "more assertive and authoritarian China" while we continue to face threats from Russia, Iran, terrorism, as well as cyber and digital threats, and nuclear proliferation to name only a few.¹ Though these challenges have economic, diplomatic, and technological dimensions, the continuity between President Biden and President Trump's national security strategies demonstrates a bipartisan understanding that the military will play a central role in what is now a strategic competition.

While there is always a need to ensure that defense dollars are spent effectively and efficiently, thereby reducing wasteful spending, such efforts should not result in budgets and policies that fail to provide for a military capable of fulfilling its fundamental mission – the common defense. For the Biden administration's strategy, that means resourcing a military capable of deterring a catastrophic great-power war and, if deterrence fails, preventing the escalation of the conflict and ending the war on terms favorable to the United States and its allies.

As Congress reviews the FY22 defense budget request, this Committee should consider:

- (1) Providing a 3-5% real growth per annum increase in defense spending to ensure that the Department of Defense (DOD) can execute its current strategy, mission requirements and modernize the force.

- (2) Ending the repeated use of continuing resolutions, revisiting laws that incentivize “use it or lose it” spending and continuing to support DoD efforts to realize a comprehensive, clean audit.
- (3) Ensuring that emergency spending measures before Congress do not leave DOD victim to reduced appropriations and harmful budget delays.

Defense Budget Topline: Building a Strategy-Driven Budget

Defense budgets must be strategy-driven and fiscally informed, not the reverse. Secretary Austin echoed this view during his Senate confirmation hearing saying that our “resources need to match our strategy and our strategy needs to match our policy.”ⁱⁱ As the 2018 bipartisan National Defense Strategy Commission (NDS Commission) outlined, Russia and China have embarked on massive military modernization initiatives that have diminished America’s longstanding military advantages, and even surpassed the U.S. in some key capabilities. The NDS commission, whose members included Deputy Secretary of Defense Kathleen Hicks, warned that, even with its current defense budget, “the U.S. military could lose the next state-versus-state war it fights.”ⁱⁱⁱ

China’s military spending reinforces this concern. Recent research from the Heritage Foundation concluded that when accounting for differences in official reporting, purchasing power, and labor costs, China’s 2017 defense budget amounted to 87% of the purchasing power of the 2017 U.S. defense budget.^{iv} This spending is concentrated on relatively few regional objectives, while U.S. defense budgets resource a military with a global mission, including deterring a resurgent Russia in Europe and a continuing need for presence in the Middle East. Moreover, the U.S. heavily invests in personnel costs, such as health care and pay, in a way that China does not. This is part of the reason why the PLA can afford to maintain an active force 700,000 troops larger than the U.S. while claiming to have a substantially lower topline.^v

Despite the fiscal challenges posed by the COVID-19 crisis, Beijing announced a 6.8% increase in defense spending in March 2021.^{vi} These increased resources have continued a spending trend that has funded what former National Security Advisor General H.R. McMaster has accurately described as “the largest peacetime military buildup in history” and led Admiral Phillip Davidson, outgoing commander of U.S. Indo-Pacific Command, to testify before the Senate Armed Service Committee that the Chinese military threat to Taiwan may materialize within the next six years.

The Trump administration deserves some credit for launching an effort to respond to this challenge by seeking to rebuild the military, yet this work is by no means complete. In fact, much of the increased funding appropriated in fiscal years 2018 through 2020 was allocated toward restoring readiness, with only a small percentage focused on modernization. Accordingly, the NDS Commission’s recommendation that a 3 – 5% real growth per annum increase in defense spending remains an urgent priority for the U.S. military to project power and uphold alliance commitments. While the Commission noted that this number is more “illustrative than definitive” what is clear is that real budgetary growth is required to maintain readiness and modernize the force.^{vii}

Assessing the Impact of Defense Cuts

Even before COVID-19 triggered America's economic downturn, calls to reduce defense spending emerged from elements in both political parties. Now, with historic deficits resulting from federal spending on COVID-19 relief and other proposed spending measures, those calls are increasing. To examine the real consequences of cuts to the Pentagon's resources, the Ronald Reagan Institute and the Center for Strategic and Budgetary Assessments (CSBA) hosted two Strategic Choices Exercises this past fall. Bipartisan groups of recognized leaders in their fields — defense and budget experts, current and former policy makers, and industry executives — utilized CSBA's interactive Strategic Choices Tool to weigh the tangible implications of defense budget changes.

The results of this bipartisan group effort were clear: defense budget cuts would have devastating consequences of our military and our national security. A ten percent cut – a proposal introduced (and soundly defeated) in both chambers last Congress – would leave the United States with a military that is incapable of carrying out the current National Defense Strategy. It would compel the DOD to re-examine its current standard of maintaining a force that can win one war while deterring another. To realize cuts of this magnitude, experts were forced to significantly reduce the military's force structure — the size and organization of our military — leaving the participants to question America's ability to win one war, let alone deter a second.^{viii} In other words, "with cuts of this magnitude the United States could be reduced to a de facto hemispheric power by 2030."^{ix}

When forced to implement a 10 percent cut, participants made choices with dubious political and strategic assumptions. For example, teams made significant cuts to personnel, force structure and modernization programs that heretofore have proved politically impossible. Similarly, teams cut the contractor and civilian workforce by approximately 10 percent and 30 percent, respectively. Such cuts would result not only in large reductions in support and expertise provided to warfighters but also a quick and dramatic loss of a substantial number of American jobs.^x

On the strategic level, the consequences are no less real. Defense cuts would place further strain on an alliance system already under severe pressure. They would leave the United States with a significantly reduced forward presence that would be less able either to deter adventurism by adversaries or to assure allies that America will come to their defense.

The Administration's \$715 billion dollar budget request for FY 2021, when accounting for inflation, is a reduction from the previous fiscal year. While this may appear to be sufficient to maintain the status quo, readiness and modernization accounts will shrink as other budget lines, such as personnel and operations and maintenance accounts, tend to demand continued real growth. Thus, the Administration's budget will likely exacerbate the Department's ability to modernize. Put differently, defense cuts do not equal defense reform; rather, as our strategic choices exercise makes clear, less resources result in a less capable fighting force.

A More Efficient Pentagon – Ending Continuing Resolutions (CR), "Use-it-or-lose-it" Incentives and the DOD Audit

As this Committee considers how to reduce waste and inefficiency, it ought to consider one of the most consistent drivers of inefficiency in the Department of Defense – continuing resolutions.

As this Committee knows, DOD has started the fiscal year under a CR fifteen of the past twenty years (FY2002-FY2021) creating unnecessary uncertainty that creates significant management challenges for the Department.^{xi} Interim CRs create compressed timelines for expenditures and generate waste by requiring short-term contracts that must be resigned once additional funding has been allocated. One Congressional Research Service report gave the following example of the inefficiencies created by reliance on CRs:

“For example, as the Air Force program to procure a new combat rescue helicopter transitions from development to production between FY2019 and FY2020, the amount requested for R&D dropped by about \$200 million while the amount requested for procurement rose by a 12-percent larger amount. Although the total amount requested for the program in FY2020 is thus \$25 million higher than the total appropriated in FY2019, a CR that continued the earlier year’s funding for the program would be problematic: The nearly \$200 million in excess R&D money could not be used to offset the more than \$200 million shortfall in procurement funding, absent specific legislative relief.”^{xii}

These inefficiencies cost real money, reduce military readiness, and hinder modernization. A few recent examples: In December 2017 Secretary of the Navy Richard Spencer stated that since 2011, CRs had cost the Navy \$4 billion.^{xiii} Before the beginning of FY 2018, DOD delayed starting seventy-five weapons due to the rule that govern CRs.^{xiv} At the 2019 Reagan National Defense Forum, Secretary Esper reported the Department was unable to begin almost 200 new-start programs and nearly 100 production increases due to the CR.^{xv} As the NDS Commission concluded, CRs have had a “grave material impact, encouraging inefficient, “use-it-or-lose-it” spending by the services at the end of the fiscal year, resulting in delays in acquisitions and modernization, and exacerbating readiness problems throughout the force.”^{xvi}

Another reform the Congress might consider is revisiting legal restrictions that incentivize “use-it-or-lose-it” spending. As currently mandated, Congress permits the Defense Department to transfer only a total of \$6 billion from one appropriations account to another in any given fiscal year and, with some exceptions, prohibits using appropriated funds across fiscal years. Thus, in the last month of every fiscal year, Pentagon programmers are incentivized to spend the balance in their annual budgets, rather than obligate the funding in the next fiscal year which would likely advance a more strategically sound purpose.^{xvii}

Congress should also continue to support DOD efforts to realize a clean audit. With some \$3.1 trillion in assets, auditing DOD was always going to be a monumental task. A similar initiative at the Department of Homeland Security, a substantially smaller organization, also took 10 years to pass an audit. As one recent report noted, “defense financial systems were established to track how the DOD applies funding to defend the country. They were not set up for business efficiency or to produce detailed financial documentation at the enterprise level.”^{xviii}

Though the process has involved around 1400 auditors and cost taxpayers close to \$1 billion, the ongoing Audit mandated by the Government Management Reform Act of 1994 is generating reforms that increase DOD’s performance and accountability.^{xix} These efforts have resulted in

the consolidation of data access and IT systems, enabled more efficient resourcing of defense spending, and assured taxpayers that DOD resources are not wasted on fraud. This last point is critically important: while a fully clean audit is likely years away, for the third straight year auditors found no evidence of fraud.^{xx} Moreover in 2020, 16.3% of the issues identified in the previous year's audit had been fixed.^{xxi}

Impact of Emergency Spending Measures on DOD: Challenges and Opportunities

This Committee should also consider how emergency spending measures before this Congress may impact the Department of Defense and the annual appropriations process. The combined spending of the Coronavirus Aid, Relief, and Economic Security Act and the proposed American Jobs Act and American Families Plan, if passed, would result in over six trillion dollars of federal spending. In the aggregate these measures would add up to the equivalent of over four years of federal discretionary spending. These bills resource domestic areas exclusively, which under normal circumstances Congress would fund through annual appropriations measures that naturally balance defense and domestic priorities. Given the size and scope of these emergency bills, Congress may be less incentivized to balance spending priorities given the trillions it may spend on domestic priorities. Though the unprecedented crisis brought on by the COVID-19 pandemic justifies emergency spending, prioritizing multi-trillion multi-year omnibus packages threaten to exhaust Congressional appetite for spending during its regular consideration of the President's budget request leaving the DOD in a precarious funding position.

To mitigate this outcome, Congress should consider funding defense priorities which complement the priorities of the emergency bills. Specifically, the Administration's infrastructure proposal provides an excellent opportunity to enhance military bases and housing, industrial base infrastructure, like shipbuilding^{xxii}, and critical research and development programs and projects. From the construction of the interstate highway system to the contemporary need to secure the defense industrial base's supply chains, infrastructure has long been critical to U.S. national security. Although the White House's plan to allocate \$50 billion to bolster a domestic superconductor industry represents a small victory, the American Jobs Act in its current iteration is a missed opportunity to resource national security-relevant infrastructure.

The nation's cyber resiliency represents a particularly urgent area in need of infrastructure investment, which the American Jobs Act currently underfunds. While the Biden administration plans to "integrate cyber with the design and implementation of the [American Jobs Plan] with investments in cyber security," no funds are allocated to protect the energy grid enhancements and other infrastructure expansions currently proposed by the bill. The damage caused by the recent cyber-attack on the Colonial pipeline, which has already required federal assistance, demonstrates the critical need to protect the energy grid enhancements and other infrastructure investments proposed in the plan.^{xxiii}

Conclusion

In 1984, President Reagan observed, "history teaches that war begins when governments believe the price of aggression is cheap. To keep the peace, we and our allies must be strong enough to

convince any potential aggressor that war could bring no benefit, only disaster.” This philosophy of “peace through strength” is strengthened by healthy reforms, such as consistent and timely appropriations and modernized financial management practices. Budget cuts masked as reform will only weaken our national defense. The recently released Reagan National Defense Survey reveals that three in four Americans, including significant majorities of both Republicans and Democrats, favor increasing defense spending. Americans understand what it takes to sustain the peace and our prosperity, and they are willing to make the investments necessary to support a strategy that delivers just that. It is imperative that this Committee balance domestic and national security priorities in a fashion that ensures our military is properly resourced to meet the demands of our national defense obligations.

ⁱ <https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/03/interim-national-security-strategic-guidance/>

ⁱⁱ <https://www.armed-services.senate.gov/hearings/watch?hearingid=B375A7FA-5056-A066-608B-60103D5F5D6F>

ⁱⁱⁱ <https://www.usip.org/sites/default/files/2018-11/providing-for-the-common-defense.pdf>

^{iv} <https://www.heritage.org/asia/report/chinas-defense-budget-context-how-under-reporting-and-differing-standards-and-economies> See also

https://www.realcleardefense.com/articles/2021/05/03/combined_china_and_russian_defense_spending_exceeds_us_defense_budget_775323.html

^v For more on China R&D spending see <https://www.defensenews.com/opinion/commentary/2021/04/05/why-slashing-the-pentagon-budget-would-be-a-disaster/> and see

<https://www.heritage.org/defense/commentary/chinas-defense-spending-larger-it-looks>

^{vi} <https://www.csis.org/analysis/understanding-chinas-2021-defense-budget>

^{vii} See *supra* note iii at 52.

^{viii} https://www.reaganfoundation.org/media/356490/rri_csba-americas-strategic-choices.pdf

^{ix} <https://www.reaganfoundation.org/reagan-institute/centers/articles/biden-s-post-covid-defense-budget-choice-a-resurgence-or-a-decline/>

^x See *supra* note vii

^{xi} <https://fas.org/spp/crs/natsec/R45870.pdf> See also <https://www.csis.org/analysis/what-continuing-resolution-means-defense-and-space-force-funding-fy-2021> and <https://federalnewsnetwork.com/government-shutdown/2020/09/senate-sends-shutdown-averting-continuing-resolution-to-trumps-desk/>

^{xii} *Id.*

^{xiii} *Id.*

^{xiv} *Id.*

^{xv} <https://www.youtube.com/watch?v=kEtP8j3MvRc>

^{xvi} See *supra* note iii at p. 57

^{xvii} See <https://www.militarytimes.com/news/your-military/2019/03/12/use-it-or-lose-it-dod-dropped-46-million-on-crab-and-lobster-and-9000-on-a-chair-in-last-minute-spending-spree/> For impact on modernization, see also <https://thehill.com/opinion/546097-reform-the-pentagons-budget-process-or-lose-our-military-and-tech-advantages>

^{xviii} <https://www.aei.org/wp-content/uploads/2021/04/What-Should-You-Know-About-the-Defense-Audit.pdf?x91208>

^{xix} https://www.armed-services.senate.gov/imo/media/doc/Norquist_11-20-19.pdf

^{xx} <https://www.defensenews.com/pentagon/2020/11/16/the-pentagon-failed-its-audit-again-but-sees-progress/>

^{xxi} *Id.*

^{xxii} <https://www.wsj.com/articles/want-infrastructure-build-shipyards-11619044766>

^{xxiii} <https://www.politico.com/newsletters/weekly-cybersecurity/2021/04/26/the-push-for-cyber-funding-in-bidens-infrastructure-plan-794879>

PREPARED STATEMENT OF LIEUTENANT GENERAL (RET.) THOMAS SPOEHR

Waste, Fraud, Cost Overruns, and Auditing at the Pentagon

Committee on the Budget

U.S. Senate

May 12, 2021

Good morning, my name is Tom Spoehr and I am the Director of the Center for National Defense at The Heritage Foundation, and a retired Army Lieutenant General. The views I express in this testimony are my own and should not be construed as representing any official position of The Heritage Foundation.

Thank you for the opportunity to appear before this committee.

This is a vitally important topic. No federal organization should be exempt from the imperative to be as efficient, effective, and free from fraud as possible. The U.S. Department of Defense (DOD), with nearly 20 million employees, an annual budget of over \$700 billion, and more than \$3 trillion worth of assets has a special obligation to be a good steward of the resources entrusted to it for the nation's defense.¹

No organization is perfect, and the Department of Defense is not immune to instances of waste, overruns, and fraud. Every option and opportunity must be explored to find new ways for the Pentagon to be more efficient. No one gets a free pass. And, given the amount of oversight agencies, safeguards, and reforms under which the Department of Defense operates, it is my opinion that *the Pentagon today is one of the most scrutinized and reformed organizations in the federal government.*

The Pentagon Is Subject to Oversight from Multiple External and Internal Agencies

Multiple organizations, such as the General Accounting Office (GAO), the Office of the Inspector General, audit agencies at all levels, the Defense Contract Audit Agency, service contracting offices, the now-annual financial audit, and hundreds of legal offices, all operate to ensure proper processes and that laws are followed.

In fiscal year (FY) 2020, the Department of Defense Inspector General's office alone, consisting of 1,750 individuals, issued 138 audit and evaluation reports, conducted 35 administrative investigations, and recovered \$2.69 billion dollars.²

In March 2021, the GAO found that the "DOD continues to demonstrate a strong commitment, at the highest levels, to improving the management of its weapon system acquisitions," and that "DOD leadership continued its commitment to financial management improvements."³

Thousands of pages of acquisition rules exist, with more published each year, strictly guiding acquisition and contracting decisions. Myriad annual reports, such as an annual performance plan and agency financial assurances, are prepared and published. Tough ethics laws are in place and

rigorously enforced. Determined individuals can still perpetrate fraud, but the DOD and Congress have succeeded in making it difficult.

The Size of the Pentagon Budget

Some argue that the Pentagon budget is overly large, indeed “bloated” and riddled with waste. Some further argue that Pentagon spending has grown unchecked, now representing the largest part of the federal discretionary budget.⁴

Just because something is big does not mean it is bloated. Dwayne “The Rock” Johnson is big, yet no one would accuse him of being bloated.

National defense now consumes the smallest portion of the U.S. federal budget in a hundred years— 15 percent—and continues to shrink.⁵ And, except for a moment in 1999, spending on national defense now consumes the smallest percentage of the U.S. gross domestic product in modern history.⁶

Critics also invoke the statement that DOD’s funding is bigger “than the next 10 nations’ military budgets combined”⁷ as grounds for claiming that the budget is overly large and unnecessary.

Some added context and explanation is necessary.

First, when adjusted for purchasing power parity, an internationally recognized method of equating economies, comparisons of national defense spending reflect U.S. defense spending in terms of its purchasing power to be roughly equal to that of two countries (China and Russia)—not 10.⁸

The second, and more significantly overlooked element, is that the United States—for better or worse—is a global power with worldwide responsibilities. U.S. defense commitments include agreements with NATO, Japan, South Korea, Israel, Australia, and New Zealand, as well as international sea lanes and other areas. Other countries do not share similar responsibilities, and it is misleading to compare the U.S. to others without that context.

In the end, the best way to assess the size of the U.S. defense budget is to understand how well the budget allows the nation to execute its current national defense strategy. It should be no surprise that this type of assessment is also the most difficult to perform.⁹

The Pentagon’s Aggressive Reform Efforts

No other federal department has undergone the sheer number of reforms and efficiency drives as the Pentagon has in the past five years. In many cases at the direction of Congress, the Department of Defense has converted its defined benefit retirement plan to a hybrid defined contribution plan,¹⁰ cut headquarters sizes by 20 percent,¹¹ completely revamped the manner in which health care is delivered to members of the military and produced a new acquisition framework¹² to acquire capabilities.

Pentagon efficiency efforts, such as the Defense-Wide Review¹³ undertaken by former Secretary of Defense Mark Esper, or the famous “Night Court” review in the Army,¹⁴ largely go unnoticed by the public, even though they saved billions of dollars.

The GAO largely supported the DOD’s December 2020 claim that it had identified \$37 billion dollars in savings that could be applied to other defense programs.¹⁵

In addition, every year Congress levies new reform initiatives.¹⁶ There were 88 new acquisition initiatives in the FY 2017 National Defense Authorization Act alone. The 2021 National Defense Authorization Act topped 1,450 pages, many of which are new initiatives and policies to be implemented by the DOD. Some have made the argument it is more that the Pentagon can keep up with.¹⁷

Fraud in the Defense Department

Any type of fraud within the DOD represents a problem that must be eliminated. There is a challenge to put the issue into context. Indeed, the Air Force was lambasted in 2018 for purchasing coffee cups for KC-10 aircraft that cost \$1,280 apiece. Overlooked was that it was *the Air Force itself that identified the problem* and stopped buying the cups before it even came to the public’s notice.¹⁸

Fraud, just like in civil society, exists in the Pentagon and its supporting supplier base. For example, a 2018 report on defense contracting fraud found that in the preceding five years there had been 1,059 criminal cases brought against 1,087 defendants and that nearly \$800 million had been returned to the government.¹⁹

That the DOD continues to pursue such cases so vigorously helps to deter future instances of fraud. Continued vigilance by all parties is essential for combatting fraud.

The DOD Financial Audit Isn’t the Answer

Some point to the Pentagon’s inability to pass an audit as prima facie evidence that the Pentagon is unworthy of the funding it is provided. Congress imposed the requirement for the DOD to pass a financial audit back in 1990, even though passing an audit is no guarantee that an organization is well managed.²⁰ Indeed, Enron, the poster child for corporate abuse, managed to pass all its financial audits, right up until the moment it imploded as a result of massive fraud.²¹

The Pentagon has undergone three full audits in the past four years, not passing any of them. Indeed, the result of each has been a “disclaimer of opinion,” auditor talk for “the books were in such a state that the auditors could not render an opinion.”²²

Each year, the DOD fixes the previous year’s notices of findings and recommendations (NFRs), and each year a similar number of new NFRs are noted. At a recent hearing, the acting DOD Comptroller predicted that it would now take until 2028 for the Pentagon to pass the audit.²³ It is unclear whether that estimate is realistic.

Albert Einstein is credited with saying that the definition of insanity is doing the same thing over and over, and expecting different results.

It is not for lack of trying that the Pentagon has not passed the audit. The audit is larger in scope and size than any other attempted of its kind, dissecting a vast global enterprise of more than 20 million people. To perform this audit is both expensive and time-consuming, and in many cases duplicates existing DOD oversight mechanisms.

The 2017 audit cost nearly a billion dollars—\$367 million to conduct the audit, and \$551 million to fix the issues it discovers.²⁴ Subsequent years have carried similar costs.

U.S. corporations by law undergo strict annual financial audits to assure potential investors in capital markets of the soundness of their offerings as described in their financial statements. But the DOD is not a corporation and has no such corresponding need.²⁵

Of course, conducting the audit is the law of the land and must be accomplished for that purpose. *But there should be more justification to continue to spend a billion dollars a year unless the expected payoff at the end is expected to outweigh the costs.* Most experts, however, believe that passing the audit will not cause the DOD to become appreciably more efficient or better managed.²⁶

The audit carefully examines DOD financial statements: a consolidated balance sheet, a consolidated statement of net cost, a consolidated statement of changes in net position, and a combined statement of budgetary resources.²⁷ These statements are currently not used for any management purposes within the DOD, and senior leaders do not consult them in decision-making.²⁸

Certain Elements of the DOD Financial Audit Have Value. There are some elements, which, if tackled and fixed, would provide value added. Tracing and fixing problematic financial transactions might prove useful. Improvements to the DOD's financial information technology (IT) systems would be beneficial. But many elements of the audit, such as verifying physical property existence, completeness, and valuation (portions of which demand that the DOD recount physical property, such as F-35 fighters and World War II buildings) or placing an accurate value on a 1960s-era armored personnel carrier—carry no real value.

Other requirements, such as determining proper access to IT systems, are already covered by other DOD processes, and addressing them in the financial audit is redundant.

Congress should take the immediate opportunity to work with the Pentagon and the auditing community to narrow and focus the effort of the financial audit to include only those items, which, if fixed, would be expected to add direct value to management and financial operations of the Pentagon.

Areas Where Savings and Efficiencies Are Possible

Although the Pentagon has undergone several reforms in recent years, there are still opportunities where Congress can help to make the Department of Defense more efficient.

Congress should authorize another round of Base Realignment and Closure (BRAC), even if the Pentagon does not ask for it. The Pentagon has previously said that it could save \$2 billion a year with another round of BRAC.²⁹

Congress should allow public-private competitions previously authorized under OMB Circular A-76 to take place. Such competitions normally generated a 20 percent to 30 percent cost savings, regardless of whether the government or private industry wins the competition.³⁰

Congress should allow the DOD to carry over a small portion, perhaps 5 percent, of its operating and maintenance accounts to the next fiscal year to reduce the pressure of year-end “use it or lose it” spending, which is generally less effective spending.³¹

Given the anticipated flat budget for 2022, Congress should view with caution Pentagon attempts to divert funding to costly projects in pursuit of fighting climate change---such as converting the DOD’s entire fleet of non-combat vehicles to electric by 2030 and expensive biofuels---unless a clear warfighting value is present.³²

Finally, Congress should exercise its oversight function to confirm only those nominees who have the significant management and business experience necessary to lead the Department of Defense and have the proven capability to push an organization to higher levels.³³

Conclusion

Thank you for the opportunity to testify. This is a vitally important topic. Nothing I have said should be taken to mean that the Pentagon deserves a free pass on efficiency. Indeed, the Pentagon must do better.

There are no quick and easy solutions to making the Pentagon more efficient. Solutions will be hard-won and focused on discrete problems. Tough-minded and educated leaders are needed to implement change. But “hard” does not mean “impossible,” and nothing is more important to the long-term future of this country than an effective and efficient national security apparatus.

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¹ House Armed Services Committee, “Hearing on Defense Department Financial Improvement,” April 28, 2021, p. 3, https://plus.cq.com/alertmatch/481913300/0&deliveryId=75129319&uid=congressionaltranscripts-6207945&utm_medium=alertemail&utm_source=alert&openinplus=true (accessed May 10, 2021).

- ² Statement of Sean O'Donnell, Acting Inspector General, Department of Defense before the Subcommittee on Military Personnel, Committee on Armed Services, U.S. House of Representatives, April 15, 2021, pp. 1 and 2, <https://media.defense.gov/2021/Apr/15/2002621862/-1/-1/1/SEAN%20ODONNELL.%20DOD%20OIG%20TESTIMONY%20BEFORE%20HASC%20SUBCOMMITTEE%20ON%20MILITARY%20PERSONNEL.PDF> (accessed May 10, 2021).
- ³ General Accounting Office, "Dedicated Leadership Needed to Address Limited Progress in Most High-Risk Areas," March 2021, pp. 135 and 142, <https://www.gao.gov/assets/gao-21-119sp.pdf> (accessed May 10, 2021).
- ⁴ Elliot Negin, "Congress's Bloated Defense Budget Is Indefensible," *The Hill*, January 5, 2021, <https://thehill.com/opinion/energy-environment/531758-congress-bloated-defense-budget-is-indefensible> (accessed May 11, 2021).
- ⁵ Michael E. O'Hanlon, "Is US Defense Spending Too High, Too Low, or Just Right?" Brookings Institution, October 15, 2019, <https://www.brookings.edu/policy2020/votervital/is-us-defense-spending-too-high-too-low-or-just-right/> (accessed May 8, 2021).
- ⁶ U.S. Department of Defense Office of the Under Secretary of Defense (Comptroller), "Defense Budget Overview," May 13, 2020, pp. 1–13, https://comptroller.defense.gov/Portals/45/Documents/defbudget/fy2021/fy2021_Budget_Request_Overview_Book.pdf (accessed May 8, 2021).
- ⁷ Elliot Negin, "It's Time to Rein in Inflated Military Budgets," *Scientific American*, September 14, 2020, <https://www.scientificamerican.com/article/its-time-to-rein-in-inflated-military-budgets/> (accessed May 11, 2021).
- ⁸ Rachel Zissimos and Thomas W. Spoehr, "Putting Defense Spending in Context: Simple Comparisons Are Inadequate," Heritage Foundation *Backgrounders* No. 3229, July 11, 2017, p. 9, <https://www.heritage.org/defense/report/putting-defense-spending-context-simple-comparisons-are-inadequate> (accessed May 8, 2021).
- ⁹ Thomas W. Spoehr, "The Six Blind Men and the Elephant: Differing Views on the U.S. Defense Budget," January 14, 2021, War on the Rocks, <https://warontherocks.com/2021/01/the-six-blind-men-and-the-elephant-differing-views-on-the-u-s-defense-budget/> (accessed May 10, 2021).
- ¹⁰ Sharon Epperson and Katie Young, "Military Personnel Face a Critical Choice for Their Retirement Plan," CNBC, January 7, 2018, <https://www.cnbc.com/2018/01/05/us-service-members-face-big-changes-to-retirement-plan.html> (accessed May 8, 2021).
- ¹¹ Charles S. Clark, "Pentagon Moves Ahead with HQ Staff Cuts," *Government Executive*, September 8, 2015, <https://www.govexec.com/defense/2015/09/pentagon-moves-ahead-hq-staff-cuts-union-cries-fowl/120518/> (accessed May 8, 2021).
- ¹² Jared Serbu, "DoD's New Adaptive Acquisition Framework Takes New Approach to Tailoring Procurement Strategies," Federal News Network, March 16, 2021, <https://federalnewsnetwork.com/on-dod/2021/03/dods-new-adaptive-acquisition-framework-takes-new-approach-to-tailoring-procurement-strategies/> (accessed May 8, 2021).
- ¹³ Jared Serbu, "DoD Budget Proposal Includes \$7.8B in Cuts, Transfers from Defense Agencies," Federal News Network, February 7, 2020, <https://federalnewsnetwork.com/defense-main/2020/02/dod-budget-proposal-includes-7-8-billion-in-cuts-transfers-from-defense-agencies/> (accessed May 8, 2021).
- ¹⁴ Connie Lee, "JUST IN: Army Secretary Says 'Night Court' Is Here to Stay," *National Defense*, January 15, 2020, <https://www.nationaldefensemagazine.org/articles/2020/1/15/army-secretary-says-night-court-is-here-to-stay> (accessed May 8, 2021).
- ¹⁵ U.S. General Accounting Office, "Defense Management: Opportunities Exist to Improve DOD's Reform Efforts," April 21, 2021, p. 7, <https://www.gao.gov/assets/gao-21-532t.pdf> (accessed May 10, 2021).
- ¹⁶ Aaron Mehta, "Thornberry Unveils Pentagon Reform Package," *Defense News*, April 2, 2020, <https://www.defensenews.com/congress/2020/04/02/thornberry-unveils-pentagon-reform-package/> (accessed May 8, 2021).
- ¹⁷ For more on this subject, see the excellent book by Peter Levine, *Defense Management Reform: How to Make the Pentagon Work Better and Cost Less* (Stanford, CA: Stanford University Press, 2020), pp. 19–21.
- ¹⁸ Stephen Losey, "Air Force Puts the Kibosh on the \$1,300 Coffee Cup," *Air Force Times*, October 23, 2018, <https://www.airforcetimes.com/news/your-air-force/2018/10/23/air-force-puts-the-kibosh-on-the-1300-coffee-cup/> (accessed May 8, 2021).
- ¹⁹ U.S. Department of Defense Under Secretary of Defense for Acquisition and Sustainment, "Report to Congress Section 889 of the FY2018 NDAA Report on Defense Contracting Fraud," December 2018, p. 2, <https://fas.org/man/eprint/contract-fraud.pdf> (accessed May 10, 2021).

- ²⁰ Courtney Buble, "Defense Department Fails Its Second Audit, Yet Is Making Progress," *Government Executive*, November 18, 2019, <https://www.govexec.com/defense/2019/11/defense-department-failed-its-second-audit-yet-making-progress/161367/> (accessed May 8, 2021).
- ²¹ David Hilzenrath, "After Enron, New Doubts About Auditors," *The Washington Post*, December 5, 2001, <https://www.washingtonpost.com/archive/politics/2001/12/05/after-enron-new-doubts-about-auditors/31f153af-4d9f-4d1d-b912-9ed33b3d615d/> (accessed May 8, 2021).
- ²² Mike Stone, "Pentagon Fails Audit Yet Again, Could Pass Around 2027, Comptroller Says," Reuters, November 16, 2020, <https://www.reuters.com/article/us-usa-pentagon-auditor/pentagon-fails-audit-yet-again-could-pass-around-2027-comptroller-says-idUSKBN27X03P> (accessed May 8, 2021).
- ²³ U.S. House Armed Services Committee, "Hearing on Defense Department Financial Improvement," April 28, 2021, p. 47, https://plus.cq.com/alertmatch/481913300?o&deliveryId=75129319&uid=congressionaltranscripts-6207945&utm_medium=alertemail&utm_source=alert&openinplus=true (accessed April 30, 2021).
- ²⁴ Jared Serbu, "Price to Complete DoD's First Annual Audit: \$918 Million, 1,200 Personnel," Federal News Network, January 11, 2018, <https://federalnewsnetwork.com/defense-main/2018/01/price-to-complete-dods-first-annual-audit-918-million-1200-personnel/> (accessed May 10, 2021).
- ²⁵ Thomas W. Spoehr, "The Unaffordable Pentagon Audit," December 27, 2017, Heritage Foundation *Commentary*, <https://www.heritage.org/defense/commentary/the-unaffordable-pentagon-audit> (accessed May 10, 2021).
- ²⁶ Mark Cancian, "Why Auditing the Pentagon Isn't Turning Up A Windfall of Waste," *Forbes*, November 19, 2018, <https://www.forbes.com/sites/markcancian/2018/11/19/the-dod-audit-no-pot-of-gold-at-the-end-of-that-rainbow/?sh=5e3277f73230> (accessed May 11, 2021).
- ²⁷ U.S. Department of Defense, "DOD Inspector General: Understanding the Results of the Audit of the DoD FY2020 Financial Statements," February 23, 2021, p. 3, <https://media.defense.gov/2021/Feb/25/2002588406/-1/-1/1/UNDERSTANDING%20RESULTS%20OF%20AUDIT%20OF%20FY%202020%20FINANCIAL%20STATEMENTS.PDF> (accessed May 10, 2021).
- ²⁸ Levine, *Defense Management Reform: How to Make the Pentagon Work Better and Cost Less*, p. 153.
- ²⁹ Frederico Bartels, "Congress Should Authorize New Round of Military Base Closures," Heritage Foundation *Commentary*, July 31, 2018, <https://www.heritage.org/defense/commentary/congress-should-authorize-new-round-military-base-closures> (accessed May 10, 2021).
- ³⁰ Frederico Bartels, "Renewing OMB Circular A-76 Competitions: Savings and Greater Effectiveness," Heritage Foundation *Backgrounder* No. 3334, August 2, 2018, p. 9, <https://www.heritage.org/defense/report/renewing-omb-circular-76-competitions-savings-and-greater-effectiveness> (accessed May 10, 2021).
- ³¹ Thomas W. Spoehr, "Rolling Over Funds: An Easy Way to Make Pentagon More Efficient," Heritage Foundation *Commentary*, July 20, 2020, <https://www.heritage.org/defense/commentary/rolling-over-funds-easy-way-make-pentagon-more-efficient> (accessed May 10, 2021).
- ³² Lara Seligman and Bryan Bender, "Electric Vehicles and Biofuel: Pentagon Poised To Go Greener Under Biden," *Politico*, March 31, 2021, <https://www.politico.com/news/2021/03/31/electric-vehicles-biofuel-pentagon-biden-478764> (accessed May 11, 2021).
- ³³ Thomas W. Spoehr, "Bad Idea: Excluding Qualified Leaders from Pentagon Service Because of Defense Industry Experience," Heritage Foundation *Commentary*, December 3, 2020, <https://www.heritage.org/defense/commentary/bad-idea-excluding-qualified-leaders-pentagon-service-because-defense-industry> (accessed May 10, 2021).

Responses To Written Questions of Senator Van Hollen From Lawrence Korb

Question 1: Last year, the Pentagon failed an audit for the third time. The first audit was completed in 2018, 28 years after the Chief Financial Officers Act required annual audits of federal agencies' financial statements and eight years after Congress required DOD to be audit-ready by Fiscal Year 2018. DOD leadership has suggested that a clean audit opinion will likely not be achieved until 2028.

1. What are some of the key lessons learned from the completed Pentagon audits?
2. What, if anything, could Congress do to accelerate the timeline to a clean audit opinion for the entire Department of Defense?
3. What do the findings of the completed audits indicate about the relationship between auditability and back-office functions like IT, business process modernization, contract management, financial management, and support infrastructure management?
 - a. In a more constrained budget environment, does it concern you that core functions like these may be seen as low-hanging fruit for cost savings?
 - b. What are the long-term impacts of failing to invest in business systems and processes that ensure a healthy, efficient, well-functioning organization that is not vulnerable to waste, fraud, and abuse?

Answer: There's no doubt that, given its size and assets, the Pentagon will face many challenges in successfully passing an audit. However, it was not necessary for it to fail three times. The real problem that it has in continually failing is lack of attention to the audit from the very top leadership of the Department. Since 2010, when Congress gave it eight years to pass, none of the dozens of Secretaries and Deputy-Secretaries of Defense have made it a priority. Passing an audit before the 2028 deadline the current leadership has agreed to, will require leaders like Robert McNamara, former head of the Ford Motor Company, who served as Secretary of Defense for Presidents Kennedy and Johnson, and David Packard, the head of Hewlett-Packard, who was Deputy Secretary of Defense for President Nixon, to make it a priority and to personally oversee the process.

The long-term impact of this failure is that the Pentagon has wasted billions of dollars of taxpayer funds each year, preventing it from using the wasted funds on more manpower and equipment that is critical to our security.

If the top leadership of the Department does not have the skill or willingness to make passing the audit a priority, the Pentagon will continue to suffer from unnecessary waste at the taxpayers' expense. This is something Congress in general and the Budget Committees in particular must continue to press on the top leadership, particularly in an era of constrained budgets by withholding funds from the Pentagon's overhead budget.

Question 2: President Biden's budget for Fiscal Year 2022 proposes eliminating Overseas Contingency Operations funding. According to the Congressional Research Service, from September 2001 to September 2019, the Congress appropriated \$2 trillion

in discretionary spending designated as OCO. This amounts to 9.5% of total discretionary spending during that period and about 20% of total defense spending.

1. What is the effect of OCO on DOD's ability to engage in long-term planning?
2. As we pivot toward great power competition, how would the continued use of OCO affect our ability to divest from legacy systems and invest in higher priorities?

Answer: For two reasons eliminating the OCO or warfighting budget is a step in the right direction. First, since the US will completely withdraw from Afghanistan before the start of FY 2022, any significant overseas operations that have been funded in it for the past 20 years will end. Second, the old OCO account was used to avoid the budget caps that existed since sequestration went into effect in 2013 and lasted until this year. For the past eight years the Pentagon has used the OCO account to quote, to its own controller, "as a slush fund" to fund items, like the European Defense Initiative, that had nothing to do with the wars in the Middle East.

Eliminating the OCO account will force DOD to make the hard choices, it should make and using its real budget to move from legacy systems to new technologies.

Question 3: The Ground-based Midcourse Defense (GMD) system offers an important case study for a major defense program mired by cost overruns, schedule delays, a flawed acquisition process, and major technical setbacks. After cancellation of the Redesigned Kill Vehicle, which cost approximately \$1.2 billion, the Defense Department's CAPE office recently came out with a cost estimate of nearly \$18 billion for the Next Generation Interceptor, marking a key inflection point for the GMD program.

1. What improvements to oversight and acquisition procedures should the Pentagon and the Missile Defense Agency take to prevent past mistakes with the GMD program?

Answer: There are at least three improvements that the Pentagon, the Missile Defense Agency, and Congress need to make in oversight and acquisition procedures to prevent repeating past mistakes with the GMD program.

First, do not rush to deploy a system knowing it doesn't yet work, choosing to fix the system along the way – a process called spiral development. This is what the George W. Bush administration did when it rushed to deploy the GMD by 2004 in 2002.

Second, having the program managed by the Undersecretary of Acquisition, not the Undersecretary of R&D, as DOD initially did for GMD. In fact, we separated the acquisition function from R&D, where it was for a number of years for this very reason. In managing the program the acquisition executive needs to ensure that there is sufficient competition in all aspects of the program, something that did not occur with GMD in which Boeing was the sole source in several areas.

Third, Congress needs to provide oversight much earlier in the development of such a large program like GMD. It was not until the cancellation of the RKV in August 2019 that Congress began providing tough oversight.

Responses To Written Questions of Senator Van Hollen From Mandy Smithberger

Question 1: Last year, the Pentagon failed an audit for the third time. The first audit was completed in 2018, 28 years after the Chief Financial Officers Act required annual audits of federal agencies' financial statements and eight years after Congress required DOD to be audit-ready by Fiscal Year 2018. DOD leadership has suggested that a clean audit opinion will likely not be achieved until 2028.

1. What are some of the key lessons learned from the completed Pentagon audits?

Answer: The audits are revealing a number of significant issues about weak internal controls at the Department of Defense. Two of the most significant concerns have been inadequate cyber security and extremely poor real property management. For example, DOD's financial statements [could not account for](#) more than three million pieces of government-owned property for the F-35—worth \$2 billion. The Navy's efforts to resolve these issues resulted in over \$3 billion in spare parts. Addressing these deficiencies will both increase the security of our systems and help improve readiness.

2. What, if anything, could Congress do to accelerate the timeline to a clean audit opinion for the entire Department of Defense?

Answer: Congress has played an essential role in making the audit a priority for the Department. POGO has supported amendments that would enact financial penalties to services and components that are not able to achieve an audit opinion in the past as a way to encourage the Department to continue to prioritize this issue. Congress should consider additional accountability measures as well, including regular hearings before this Committee.

3. What do the findings of the completed audits indicate about the relationship between auditability and back-office functions like IT, business process modernization, contract management, financial management, and support infrastructure management?

Answer: The Achilles heel for the audit effort has been how much the department has neglected these back-office functions. The audit reveals that the costs of this neglect are waste and putting our system at risk. POGO would also like to see Congress be as engaged in having the department prioritize contract administration and oversight tools, especially pre-award audits, forward pricing audits, and auditor participation in pre-negotiations and negotiation sessions, which will return even greater savings and further improve the effectiveness and efficiency of department operations.

a. In a more constrained budget environment, does it concern you that core functions like these may be seen as low-hanging fruit for cost savings?

Answer: POGO is very concerned that the department will offer key oversight offices and efforts for cost savings because we are already seeing this is the case. In [March](#) we reported about the Navy's proposals to make significant cuts to its Naval Audit Service. Once this expertise is lost, it's not easy to rebuild. It took the department years to rebuild its acquisition workforce after the Clinton and Bush administrations

depleted that essential oversight as “too much red tape.” The department already confronts serious challenges when it comes to modernization, these efforts will only be undermined if the department does not have adequate oversight and accountability. The audit effort has made clear that the department already has weak internal controls to prevent waste, fraud, and abuse. Making cuts to core functions will only make the department’s current problems worse.

b. What are the long-term impacts of failing to invest in business systems and processes that ensure a healthy, efficient, well-functioning organization that is not vulnerable to waste, fraud, and abuse?

Answer: Unfortunately, it’s not an exaggeration to say that the consequences of wasted funds can be deadly. Weak property management can lead to more weapon systems in need of repair, which translates into less training time and enhanced risks of preventable accidents. Incorrect information leads to inaccurate forecasting, and inefficiencies in business systems and processes harm the budget process readiness. In the national security arena there are already so many forces that are out of our control, it’s inexcusable that we wouldn’t manage what is firmly in our control and prioritize having systems to prevent waste, fraud, and abuse.

Question 2: President Biden’s budget for Fiscal Year 2022 proposes eliminating Overseas Contingency Operations funding. According to the Congressional Research Service, from September 2001 to September 2019, the Congress appropriated \$2 trillion in discretionary spending designated as OCO. This amounts to 9.5% of total discretionary spending during that period and about 20% of total defense spending.

1. What is the effect of OCO on DOD’s ability to engage in long-term planning?

Answer: Responsible long-term planning requires more information and transparency than has been typically provided through OCO requests. As the Congressional Budget Office has previously testified to this Committee, using OCO makes it more likely expensive and lower-priority projects get funded. Once those programs are initiated they can be difficult to curtail. The end result is OCO undermining planning and management.

2. As we pivot toward great power competition, how would the continued use of OCO affect our ability to divest from legacy systems and invest in higher priorities?

Answer: Continued reliance on OCO would undermine the ability of the United States to invest in its top priority programs by continuing to discourage prioritization and encourage waste. As Congress considers the Biden administration’s request, however, I would urge some caution around proposals to cut legacy systems. Those cuts are appropriate cost-saving measures when they are systems that are no longer supporting our top national security priorities. But we worry that in many instances those cuts are trying to force Congress to support risky and unaffordable modernization programs.

Question 3: The Ground-based Midcourse Defense (GMD) system offers an important case study for a major defense program mired by cost overruns, schedule delays, a flawed acquisition process, and major technical setbacks. After cancellation of the Redesigned Kill Vehicle, which cost approximately \$1.2 billion, the Defense Department's CAPE office recently came out with a cost estimate of nearly \$18 billion for the Next Generation Interceptor, marking a key inflection point for the GMD program.

1. What improvements to oversight and acquisition procedures should the Pentagon and the Missile Defense Agency take to prevent past mistakes with the GMD program?

Answer: As much as possible Congress should make sure that the Missile Defense Agency follows key acquisition rules. While the agency was initially exempt from those laws, that exemption should not mean that the agency is exempt from accountability. We largely agree with the recommendations of the [Government Accountability Office](#), including that MDA must avoid concurrency, especially when there are developmental delays, which indicates that a system is not ready for prime time. Increasing transparency will also help Congress oversee MDA and prevent unnecessarily risky program changes. Congress should also ensure that the annual report from the Director of Operational Test and Evaluation continues to be made available to the public, including as much information about missile defense as possible.

SUSTAINABLE DEFENSE: MORE SECURITY, LESS SPENDING



**FINAL
REPORT**

FINAL REPORT OF THE SUSTAINABLE DEFENSE TASK
FORCE OF THE CENTER FOR INTERNATIONAL POLICY





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EXECUTIVE SUMMARY

An alternative defense strategy that avoids unnecessary and counterproductive wars, reduces the U.S. global military footprint, takes a more realistic view of the major security challenges facing the United States, and reduces waste and inefficiency could save at least \$1.2 trillion in projected spending over the next decade while providing a greater measure of security.

Contrary to recent assertions by advocates of higher Pentagon spending, America can be made safer for far less money. The United States has made enormous investments in security in the past two decades. At \$716 billion per year, current spending on the Pentagon and related agencies is well above the post-World War II average, and only slightly less than the levels reached in 2010, when the United States still deployed nearly 180,000 troops in Iraq and Afghanistan. Yet, the Pentagon's current plan budgets \$7.6 trillion for national defense over the next ten years.

Any future investment in defense has to be both strategically wise and fiscally sustainable. In many ways, the US has overpaid for security in this century, and in some ways, this spending has been counterproductive. A more realistic, effective defense strategy would not only provide greater security, but also save taxpayer dollars.

This report's recommendations are a sharp contrast to the National Defense Strategy announced by the Pentagon in January 2018 and the companion evaluation of that strategy provided by the National Defense Strategy Commission (NDSC), which has declared that "[t]he security and well-being of the United States are at greater risk than at any time in decades." The commission's report and the National Defense Strategy that it evaluates exaggerate the challenges posed by major powers while ignoring severe threats that cannot be addressed by the Pentagon.

Military strategy is just one part of a larger approach to ensure the safety of the United States and its allies and protect U.S. interests. National strategy involves assessing all of the major challenges facing the United States, providing the resources needed to address them, and setting priorities among competing demands. Many of these challenges – from climate change to economic inequality to epidemics of disease – are not military in nature.

ELEMENTS OF A NEW STRATEGY

An alternative strategy for the United States requires a fresh approach, one that takes into account accelerating changes and challenges in the global environment and makes a balanced assessment of the tools needed to address these challenges.

A new strategy must be much more restrained than the military-led approach adopted throughout this century, replacing a policy of perpetual war with one that uses military force only as a last resort, when vital security interests are at stake. A new approach should rely on diplomacy, economic cooperation, and other non-military instruments as the primary tools for addressing security challenges.

The first element of a new strategy must be a recognition that the U.S. homeland is relatively safe by historical standards, from conventional attack by any major power and from the risk of attacks from terrorist organizations based outside of the United States. While another major international terrorist attack on the United States remains possible, the nation is much better prepared today, while even elementary safeguards were missing 18 years ago. In any event, domestic terrorism is not primarily an international threat and the policy solution does not demand military force expansion, while nuclear threats can be thwarted by a deterrence-only strategy and force posture.

Second, the wars of the last 18 years – including large-scale counterinsurgency efforts, nation building, and global terrorist-chasing, as occurred in Iraq, Afghanistan, and beyond – have done more harm than good, in some cases disastrously so. Abandoning such policies could lead to concomitant reductions in the size and geographic reach of the U.S. military while promoting greater security. Most importantly, it would stop unnecessarily risking the lives of U.S. troops.

Third, an alternative national security policy needs to recognize that Russia does not pose a traditional threat to the United States, nor does China. Neither approaches the dominant military power of the United States, which has the only truly global military force. Given the potentially disastrous consequences of war between nuclear-armed great powers, plans to prevent such a conflict should take precedence over spinning out warfighting scenarios. Ultimately, the competition between the three major powers centers on economic dominance (particularly with China) and diplomatic influence.

Greater reliance on allies tied to a more restrained strategy will allow a reduction in global U.S. troop deployments, especially ground troops, and smaller reductions in the Air Force and Navy. In addition to relying more heavily on allies, the United States should be able to surge its forces in the event of a military crisis in Western Europe or East Asia rather than maintain large and costly forward deployments. In Europe, for example, NATO allies alone cumulatively spend more than triple on their militaries than Russia, and their economies taken together are ten times the size of Russia's. U.S. allies have ample resources to defend themselves with the United States playing a less costly, supporting role.

Given, the above, the notion that the United States needs to be prepared to fight two major regional wars, with active combat in one and deterrence in the second, should be discarded as a guide to military force structure.

Fourth, the strategic approach to regional challenges, like the potential development of nuclear weapons by Iran and North Korea, outlined in current strategy documents needs to be rethought. It devalues diplomacy in favor of preparation for and threats of military conflict. The predominance of military options in U.S. strategy comes even as the Trump administration has violated and discarded the Iran nuclear deal, which was working to

curb that nation's nuclear ambitions at minimal cost to the United States and its allies. A new administration should rejoin the deal. Likewise, negotiations with North Korea, however challenging, are a far preferable option to war, which could not be won without catastrophic numbers of casualties in South Korea and the possibility of nuclear strikes against U.S. allies in East Asia.

Fifth, overall U.S. nuclear strategy should move towards a posture of sufficiency – a large enough arsenal to deter attacks on the United States and its allies. No additional capability is needed. As indicated in the alternative nuclear posture developed by Global Zero, restraint in nuclear planning would allow for a reduction to 1,100 total warheads from a stockpile that currently stands at roughly 4,000. It would include the elimination of the land-based portion of the nuclear triad – Intercontinental Ballistic Missiles (ICBMs) – which pose risks of accidental or rash resort to nuclear weapons due to the extremely short time frame in which they would need to be launched in fear of an attack.

Sixth, the most urgent risks to U.S. security are non-military, and the proper national security tools ought to be non-military as well. They include climate change, which undermines frontiers, leads to unpredictable extreme weather, and fosters uncontrollable migration; cyber-attacks and cyber offensive operations, which undermine the credibility of the internet and pose challenges to infrastructure security; global disease epidemics, which pose societal risks to all nations; and income and wealth gaps, which foster insecurity and conflict.

Last but not least, a new strategy should put as much or more emphasis on diplomatic cooperation as it does on preparing for or engaging in military confrontation. Currently, the total budget for national defense – including the Pentagon and nuclear weapons spending at the Department of Energy – is over a dozen times larger than the budget for the Department of State. This imbalance must change. There are global security interests and goals shared in common by all members of the international community. The United States must partner with other nations in addressing challenges like climate change, epidemics of disease, nuclear proliferation, and human rights and humanitarian crises. None of these challenges are best dealt with by military force. Rather, they will depend on building non-military capacities for diplomacy, economic assistance, and scientific and cultural cooperation which have been allowed to languish in an era in which the military has been treated as the primary tool of U.S. security policy.

DEFENSE BUDGETS PAST, PRESENT, AND FUTURE

The defense budget debate in recent years has pivoted around the restrictions set by the Budget Control Act (BCA) of 2011, which set spending limits for the fiscal years between 2012 and 2021. From its outset, defense hawks and other policymakers complained that the BCA's new limits would "decimate" defense readiness and modernization and put the United States at the mercy of its adversaries. But there is ample evidence that the BCA caps were neither extreme nor actually adhered to and could provide guidance towards a

much more fiscally sustainable and predictable budgetary path in the future. Spending reductions attributable to the BCA have been modest. Total Department of Defense (DOD) spending almost doubled from \$425 billion in FY2000 to \$812 billion in FY2010 (in 2019 dollars). The 2010 figure represented the highest level in both war funding and base budget funding since World War II. Proposed funding of \$750 billion for FY2020 is only a modest reduction from this peak spending, and well above the Cold War average of \$377.3 billion.

War spending has not only allowed the DOD to skirt BCA spending limits but has also subsidized its day-to-day defense spending. For example, despite a reduction in troop deployments for the post-9/11 wars from 180,000 in 2010 to a projected level of 22,000 in FY2020, the administration has proposed a war budget of \$163 billion in 2020, virtually identical to the \$165 billion figure reached in 2010.

Despite the vociferous complaining and ominous warnings from DOD spokesmen and defense hawks in Congress, the BCA decade has turned out to be very well-funded for the Pentagon. The President's plan in 2012, cited by many BCA critics as the desirable level, projected \$6.4 trillion in spending for the BCA decade, FY2012-FY2021. Counting the subsidies to the base budget provided by war spending along with several upward adjustments of the budget caps, DOD is slated to receive \$5.8 trillion over that time span. This level of spending for the base budget with war subsidies is over one trillion higher than the prior decade's level of \$4.7 trillion before enactment of the BCA, when hostilities in both Iraq and Afghanistan were at their peak.

The figures suggest that critics who have cited threats to readiness and modernization from the caps on Pentagon spending have greatly over-stated their case. If there is a readiness or modernization issue it is not because the DOD hasn't been given ample taxpayer money, it's because the DOD bureaucracy has not been spending that taxpayer money effectively.

OPTIONS FOR REDUCING SPENDING

This report details over \$1.2 trillion in savings from the Pentagon's spending plan for the next decade. Savings come from reductions in the size of the force resulting from a more restrained strategy; a downsized nuclear arsenal tied to a deterrence-only nuclear posture; and efficiencies in Pentagon operations.

On the issue of force structure, a more realistic defense strategy would allow the United States to reduce its armed forces by 10% to an active-duty strength of 1.2 million personnel. This reduction could cull \$600 billion from the administration's ten-year plan, contributing substantially to the \$1.2 trillion in defense budget savings foreseen by the task force. Although smaller than today's military, this armed force would remain the most powerful on earth, well equipped for current and emerging security challenges. The force structure cuts would also entail cancelling the Littoral Combat Ship (LCS) and reducing the size of the proposed F-35 fleet; cutting the number of carriers in the Navy from 11 to

9, thus eliminating the requirement to build new carriers within the next decade.

In the short-term, there are a number of steps Congress can take to begin to rein in over-spending by the Pentagon:

1. Restrict the Overseas Contingency Operations (OCO) account to expenditures that are directly related to current wars, as a step towards eliminating it altogether as those wars wind down. Only \$25 billion of the FY2020 administration's \$165 billion proposal for OCO is for direct war spending.
2. Cut back the Pentagon's work force of private contractors by 15% at a savings of well over \$20 billion per year, including an audit of which functions are necessary and which are redundant.
3. Block plans for the creation of an independent Space Force, saving billions in unnecessary bureaucratic overhead.
4. Forego placing weapons in space, including missile interceptors. Their potentially destabilizing effect could put U.S. military and civilian space assets at risk.
5. Roll back the Pentagon's \$1.2 trillion nuclear modernization plan, starting with the elimination of the new low-yield nuclear warhead and the new nuclear cruise missile (officially called the Long-Range Standoff Weapon).

The table below outlines the full list of savings proposed in the task force report.

LIST OF OPTIONS FOR REDUCING SPENDING

Force Structure and Weapons Procurement Reductions	10-Year Savings Est.
Army Reductions and Restructuring	\$160 Billion
Marine Corps Reductions and Restructuring	\$60 Billion
Reduce U.S. Navy Personnel and Weapons Procurement	\$193 Billion
Reduce U.S. Air Force Personnel and Aircraft Procurement	\$100.5 Billion
Reduce Peacetime Troop Deployments Overseas	\$17 Billion
End Endless Wars/Phase Out OCO	\$320 Billion
Overhead and Efficiencies	
Reduce O&M Spending on Service Contracts	\$262.5 Billion
Replace Some Military Personnel with Civilians	\$16.7 Billion
Close Unnecessary Military Bases	\$20 Billion
Nuclear Weapons, Missile Defense, and Space	
Eliminate the New Nuclear Cruise Missile	\$13.3 Billion
Cancel the New ICBM	\$30 Billion
Cancel the Space Force	\$10 Billion
Cancel Ground-Based Midcourse Defense System	\$20 Billion
Cancel New Nuclear Warheads and Rollback Modernization	\$15 Billion
Include Nuclear Weapons Complex in a BRAC Round	\$10 Billion
Total Savings: \$1,251 Billion	

* Force structure cuts include reductions in equipment purchases such as downsizing the proposed F-35 fleet, reducing the Navy's aircraft carrier force from 11 to 9, and canceling the Littoral Combat Ship (LCS).

ABOUT THE CENTER FOR INTERNATIONAL POLICY

The Center for International Policy (CIP) is an independent nonprofit center for research, public education and advocacy on U.S. foreign policy. CIP works to make a peaceful, just and sustainable world the central pursuit of U.S. foreign policy. CIP was founded in 1975 in the wake of the Vietnam War by former diplomats and peace activists who sought to reorient U.S. foreign policy to advance international cooperation as the primary vehicle for solving global challenges and promoting human rights. Today, we bring diverse voices to bear on key foreign policy decisions and make the evidence-based case for why and how the United States must redefine the concept of national security in the 21st century.

ABOUT THE SUSTAINABLE DEFENSE TASK FORCE

CIP convened the Sustainable Defense Task Force (SDTF) in November 2018 to craft a 10-year defense budget and strategy document that could demonstrate a way to rein in runaway Pentagon and nuclear spending and encourage informed debate in Congress, the media, and among citizens' organizations to advance a common-sense approach for protecting the United States and its allies more effectively at a lower budgetary cost.

Given historically high levels of Pentagon spending and the unprecedented level of U.S. debt, this effort is of particular value in the context of debates in the new Congress that took office in January 2019, and as a touchstone for debates over Pentagon spending and military strategy during the run-up to the 2020 presidential election.

In recent years debates over Pentagon spending have focused primarily on wasteful spending, specific weapons systems, or the need for more fiscal discipline. These discussions are important but can be far more illuminating when they are backed up by a solid, evidence-based analysis of how to keep America and its allies safe without overspending on defense. This is the mission of the SDTF.

The original Sustainable Defense Task Force was requested by Rep. Barney Frank in 2010 for use as a tool in debates over how to cut the deficit and was instrumental in ensuring that the Pentagon budget was subjected to caps as part of the 2011 Budget Control Act. Those efforts were a key factor in achieving a cumulative reduction of between \$200 and \$300 billion in spending relative to Pentagon projections over a five-year period.

The new SDTF is a bipartisan group of experts from academia, think tanks, government, and retired members of the military. The co-Directors are William Hartung, Director, Arms & Security Project of CIP and Ben Freeman, Director, Foreign Influence Transparency Initiative at CIP, working in conjunction with CIP Senior Associate Carl Conetta, who served as a consultant to the project.

PART ONE: STRATEGIC ENVIRONMENT AND ELEMENTS OF A NEW STRATEGY

INTRODUCTION

This report will demonstrate that an alternative defense strategy that avoids unnecessary and counterproductive wars, reduces the U.S. global military footprint, takes a more realistic view of the primary security challenges facing the United States and its allies, and reduces waste and inefficiency could save more than \$1 trillion in projected spending over the next decade, while providing a greater measure of security.¹

Contrary to recent assertions by advocates of higher Pentagon spending, America can be made safer for far less money. The United States has made enormous investments in security in the past two decades. At \$716 billion per year, current spending on the Pentagon and related agencies is well above the post-World War II average, and only slightly less than the levels reached in 2010, when the United States still deployed nearly 180,000 troops in Iraq and Afghanistan.² Yet, the Pentagon's current plan budgets \$7.6 trillion for national defense over the next ten years.³

Any future investment in defense has to be both strategically wise and fiscally sustainable. In many ways, the United States has overpaid for security in this century, and in some ways, this spending has been counterproductive. A more realistic, effective defense strategy would not only provide greater security – a more appropriate level of defense spending would also be more sustainable by a number of measures.

Fiscally, scaling back Pentagon spending to fit a more realistic strategy will slow the growth of U.S. government debt, which is expected to increase by more than \$10 trillion over the next decade.⁴ At this rate, the interest on the debt alone will exceed Pentagon spending itself and become one of the largest categories of spending in the federal budget. The increased interest spending to fund the debt risks crowding out other public investments that could meet urgent needs and strengthen the U.S. economy.

A sustainable security policy would also reduce the relentless pressure on our armed forces inflicted by the non-stop wars of this century, which have cost trillions of dollars, resulted in the deaths of thousands of troops, and left hundreds of thousands of veterans with serious disabilities. Recruiting and maintaining a capable, well-trained force depends in part on using it only for essential security tasks, not nation-building and wars of choice, which have had major negative consequences without providing corresponding security benefits. A sustainable force would match resources to the revised set of missions our armed forces are being asked to perform, saving substantial sums in the process.

A sustainable approach to defense would also scale back the U.S. military footprint, which

includes hundreds of overseas bases, multiple wars, and engagement in military activities in well over 100 countries per year.⁵ This global presence too often causes more problems than it solves by provoking terrorist blowback and putting the United States at risk of being drawn into unnecessary conflicts.

This report's recommendations are in sharp contrast to the National Defense Strategy announced by the Pentagon in January 2018 and the companion evaluation of that strategy provided by National Defense Strategy Commission (NDSC), which has declared that "[t]he security and well-being of the United States are at greater risk than at any time in decades."⁶ The commission's report and the National Defense Strategy that it evaluates exaggerate the challenges posed by major powers while ignoring severe threats that cannot be addressed by the Pentagon.⁷ Both documents set the wrong priorities, and, as a result, propose the wrong tools to achieve a lasting and stable security for the United States. They are exercises in threat inflation that would send U.S. national security policy down a dangerous and counterproductive path and lessen, rather than enhance, our security. The findings of the NDSC underscore the need for an independent look at the U.S. National Defense Strategy.

The following sections examine the current strategic environment and flesh out the implications of a new, realistic strategic approach, and an assessment of cost savings that could be generated by a change in strategy and force structure, and by the introduction of greater efficiencies in the Pentagon's operations.

OVERRELIANCE ON THE MILITARY INSTRUMENT

Military strategy is just one element of national security strategy. National strategy assesses the vital interests of the United States, the country's role in the world, and the major challenges to national well-being and safety facing the United States, providing the resources needed to address them, and setting priorities among competing demands. As discussed later in this chapter, many of these challenges – from climate change, to economic inequality, to epidemics of disease – are not military in nature.

The challenges to national security are broader than purely military issues and the military is just one of the many tools used to carry out that strategy. Over the past twenty years or more, the United States has leaned too heavily on the military tool, engaging the country in costly global deployments and an endless series of military interventions, large and small. Instead of contributing to American security, the militarization of U.S. foreign policy has seriously compromised our safety. It has often failed, as in Iraq and Afghanistan, thereby reducing the credibility of U.S. military capabilities. Overreliance on force has also weakened the capacity of American diplomacy to resolve issues and negotiate solutions to international crises. Most important, global basing and operations have inspired the growth of the very things the U.S. military is attempting to prevent: a global rebalancing to counter U.S. military power and a rise in terrorist activities.

The 2018 National Defense Strategy deals almost exclusively with military challenges. It proposes a shift away from a primary focus on terrorism and instability in the greater Middle East to a concern with great power rivalry. However, despite this rhetorical change, a world-spanning military campaign against terrorism remains the main operational approach of the U.S. military.

The focus on great power rivalry is simply stitched on to current priorities and endless combat, at greater risk and greater expense.

One of the core weaknesses of the current national security strategy is that it relies disproportionately on the Department of Defense to address all threats. It fails to recognize that the major national security challenges the United States faces are not predominantly military. Climate change, economic inequality, and global health challenges clearly pose serious risks to U.S. security. Cyber defense, espionage, and influence operations are also serious challenges. The military is ill-suited to address these challenges.

It is not enough to argue, as the National Defense Strategy does, that these issues can be addressed through “the seamless integration of multiple elements of national power – diplomacy, information, economics, finance, intelligence, law enforcement, and military.”⁸ If funding priorities are still military-centric, such integration will never happen.⁹ Currently, the military receives more funding than the rest of these elements of national power combined, including over a dozen times as much as the Department of State.¹⁰ Yet the National Defense Strategy Commission’s only concrete funding recommendation is to increase spending on the Pentagon and the nuclear weapons complex at the Department of Energy by 3% to 5% above inflation for at least the next five years. This could lead to national defense budgets well over a trillion dollars within the next decade, up from roughly \$700 billion currently.¹¹ In this scenario, the funding needed to address critical non-military challenges would necessarily lag far behind the required amount.

The result of such a bias in the national security toolkit is that the military is rapidly becoming the policy instrument of choice, even for tasks for which it is inappropriate, such as border security, humanitarian assistance, and even diplomacy. Security assistance programs, historically overseen by the State Department, are now increasingly budgeted and executed directly through the defense budget, with minimal diplomatic oversight.¹² This swells the defense budget, as the U.S. military is distributed to every corner of the globe.¹³

Overall, the strategy of global military preeminence and intervention pursued over the past 20 years has been counterproductive, and has starved other crucial security tools like diplomacy and foreign assistance. It has provoked the expansion and dispersal of terrorist groups, stimulated global power rebalancing, and threatened important programs that could stimulate growth and equal opportunity at home. It is time for a change.

OVERVIEW OF THE CURRENT STRATEGIC ENVIRONMENT

The National Defense Strategy focuses on three categories of major challenges: great power competition, as embodied by Russia and China; the regional risks posed by Iran and North Korea; and global terrorism. We will address these in turn.

THE CHALLENGE OF RUSSIA AND CHINA

The rise of China and the resurgence of Russia have created a perception that America's military capabilities are deficient. The NDSC has sounded the great-power alarm, namely that "[t]he U.S. military could suffer unacceptably high casualties and loss of major capital assets in its next conflict. It might struggle to win, or perhaps lose, a war against China or Russia."¹⁴ But a closer inspection suggests that this is not the case.

Thankfully, the NDSC's assessment of the threats posed by Russia and China – and their military capabilities relative to the United States – are overstated. While it is true that both nations have been asserting their military power more forcefully over the past decade, from Syria and the Ukraine to the South China Sea, they still lag well behind the United States. Equally significant, each nation has limited military objectives. If these relationships are handled carefully, without provocative buildups or overheated rhetoric, tensions can be reduced and conflict can be avoided. In addition, a new nuclear strategy (outlined below) and a more restrained approach to overseas intervention can help stave off a destructive and expensive arms race among the three great powers. A war involving two major nuclear powers would pose unacceptable risks, and every effort must be made to avoid one. A military-driven approach to Russia and China that ignores areas of potential cooperation, from anti-terror efforts to curbing arms proliferation to addressing climate change, is bound to fail.

This is not to say that Russia and China do not pose challenges to U.S. interests. But it is important not to overstate them, and to avoid an escalation of tensions that could spur an arms race or worse.

The military capacities of these states do not nearly equal those of America and its allies. The gaps in spending between the United States, Russia and China have narrowed during this decade. Still, spending by the U.S. and its closest allies outstrips Russian and Chinese spending by a 3 to 1 ratio.¹⁵ And U.S. European allies alone outspend Russia 3 to 1, and have economies that together are ten times the size of Russia's, indicating ample capacity to build up further if needed.¹⁶ But funding is not the only measure of relative military capabilities or goals.

First and foremost, the balance of defense budgets or relative defense capabilities are only important relative to the fundamental framework of relations among the countries of concern. During the Cold War, this framework was an existential contest – a duel to

the death - between expansive “blocs” characterized by mutually-exclusive visions and programs for organizing political, economic, and social life worldwide. These were not insular states but crusading ones, and their global contest was highly militarized from the start. Nothing like this exists today. It might in the future, which is a good reason to retain capacities for force reconstitution, and also a good reason to carefully manage relations with these states.

Other factors relevant to force comparisons include which contestant is more efficient in using resources, more experienced, better trained, and better led. Also important is the relative quality of contestants’ “human capital” (military personnel), including their health, education, motivation, and focus. Are the armed forces professional or conscript? How well do the two sides utilize technology? How well do they integrate various services and arms to fight as a team? Regarding all these factors, the United States enjoys distinct advantages. Defense expert Dr. Eugene Gholz summarizes U.S. advantages as follows:

“U.S. military power outstrips all other countries’ by a wide margin. The lead is built on many factors, including a tremendous stock of advanced military equipment (not just weapon systems) purchased with many years of high defense procurement budgets, decades of sustained annual investment in military innovation that outstrips most other countries’ entire defense budgets, learning from combat experience and realistic military exercises, and a national commitment of high-quality human capital in the all-volunteer force and in the defense industry.”¹⁷

The United States, Russia, and China also differ in their modernization potential. Russia has little economic capacity to seriously compete with the United States, now or ever. The Russian economy is currently one-tenth the size of the U.S. economy.¹⁸ Also, although portions of its armed forces are in much better shape than during the 2008 Russo-Georgian War, it continues to struggle to bring the rest up to par. Exacerbating these issues, its once formidable defense industrial base remains in disrepair.¹⁹

China, by contrast, is in a position to eventually rival American military power. However, as Stephen Biddle and Ivan Oelrich have noted, “The chief reason for concern lies not in China’s current arsenal, but in the trajectory of technical and acquisition trends whose maturation could take decades or even generations.”²⁰

In addition, the posture and disposition of U.S., Russian, and Chinese armed forces are quite different, and this affects or shapes their relative capacities. Both the Russian and (especially) Chinese military are less technologically advanced than the United States’. In addition, unit-for-unit, they are less well equipped. Also, both countries are more invested in ground forces than are the United States and its allies. And these Chinese and Russian ground forces are burdened by internal security missions and the need to secure long borders. One analyst has noted that over half of China’s military budget is devoted to internal security and border defense.²¹

Conversely, Russia and China enjoy the advantage of their proximity to focal areas of concern: Eastern Europe and the South and East China Seas, respectively. Yet this proximity also generates challenges. Europe has a potential for self-defense that could overwhelm

any Russian aggression. America's European NATO allies, taken as a group, spend over three times what Russia does on its military, and have the capacity to spend considerably more if needed.²² Likewise, any major conflict in the seas abutting China would entail destructive and disruptive consequences for China that would render any Chinese victory pyrrhic.

The economic challenge posed by China may be more important than any military threat. The Chinese economy is expected to be larger than that of the United States within the next decade, a position that will allow it to project greater military, economic, and diplomatic power should it choose to do so.²³ The country's rapid growth rate and its assertive international investment strategy, embodied in the Belt and Road economic initiative and the formation of the Chinese-led Asian Infrastructure Investment Bank, which now has 97 member nations, are in stark contrast to the military-first approach that characterizes current U.S. strategy.²⁴ The Belt and Road initiative has faced serious challenges recently, but it remains a symbol of China's emphasis on economic over military competition on the global stage.²⁵

Nowhere is the contrast between the U.S. and Chinese approach clearer than in Africa, where China has been making deals that involve building local infrastructure in exchange for preferred access to key resources, even as it moves into funding manufacturing and services.²⁶ Meanwhile, the United States has focused on arming, training, and equipping the majority of militaries on the continent for the fight against terrorism. In essence, the United States and China aren't even playing the same game when it comes to exerting influence in Africa and beyond, and America's overly militarized approach has had mixed results at best, at immense cost to U.S. taxpayers.²⁷

This is not to suggest that China's economic strategy doesn't pose serious challenges, both for China itself and for the world economy and environment. Debt driven expansion at home and abroad have exposed vulnerabilities in the Chinese model, and there have been criticisms of the labor and environmental impacts of major Chinese infrastructure projects in Africa.²⁸

Simultaneously, China's ability to devote greater resources to military purposes will have to compete with the need to foster internal stability by meeting the needs and aspirations of its own population. Michael Beckley of Harvard University's Belfer Center has outlined one key element of China's internal development challenge:

"China is about to experience the most rapid aging crisis in human history, with the ratio of workers-to-retirees shrinking from 8-to-1 today to 2-to-1 by 2040.. By that point, China will have \$10 trillion to \$100 trillion in unfunded pension liabilities. Add to this pension shortfall the rising medical costs associated with having one of the oldest societies on the planet . . . and it becomes clear that China would do well to maintain current levels of military spending, let alone increase them."²⁹

The best outcome for U.S.-Chinese relations would be a cooperative approach that includes creating mutual incentives to address climate change, improve labor conditions, and promote sustainable growth. Doing so will pose major challenges, but that's all the

more reason to devote time, attention, and resources to the problem rather than squander scarce funds on military confrontation or a crushingly expensive arms race.

REGIONAL CHALLENGES

The strategic approach to regional challenges like the potential development of nuclear weapons by Iran and North Korea that is outlined in current strategy documents devalues diplomacy in favor of preparation for and threats of military conflict. The predominance of military options in U.S. strategy comes even as the Trump administration has violated and discarded the Iran nuclear deal, which was working to curb that nation's nuclear ambitions at minimal cost to the United States and its allies.³⁰ Diplomatic negotiations with North Korea, however challenging, are a far preferable option to war, which could not be won without catastrophic numbers of casualties in South Korea and the possibility of nuclear strikes against U.S. allies in East Asia.³¹

North Korea is extremely unlikely to attack the United States with a nuclear weapon given that it would unquestionably see its own society completely destroyed in return. Such an attack would only occur via miscalculation or if North Korean leader Kim Jong Un perceived an imminent attack that put himself and his regime at risk of annihilation. Hence the need for communication, and the imperative to refrain from saber-rattling. Former Secretary of Defense William Perry has underscored these points, noting that North Korea's nuclear capacity "does not mean they are intending to initiate a nuclear war."³² Perry went on to say that there are real risks, but that they are not posed by the danger of an intentional attack on the United States by North Korea:

"North Korea is bombastic and warmongering in its rhetoric, and often ruthless in its tactics. But the regime is not irrational. Its leaders seek survival, not martyrdom. But as long as they possess these weapons in a region infused with intense and long-standing conflicts, the risk of blundering into a nuclear catastrophe through miscalculation or brinkmanship gone awry is unacceptably high."³³

With respect to Iran, the Trump administration's greatest strategic error to date was walking away from the Iran nuclear deal, formally known as the Joint Comprehensive Program of Action (JCPOA). Not only was the agreement effective in preventing Iran from obtaining a nuclear weapon or advancing its capabilities for doing so, but it was a prime example of the kind of effective multilateral diplomacy that will be needed to address other global problems, from issues of the environment to war and peace.

Placing the United States, the United Kingdom, France, Germany, Russia, China and representatives of the European Union on the same page with the Iranian government was a major achievement that could have paved the way for a more balanced U.S. approach to the region, in which negotiations with Iran on other issues might have been possible. Instead, the Trump administration has threatened to seek regime change in Iran while doubling down on a counterproductive, destabilizing relationship with Saudi Arabia, as evidenced most clearly by U.S. support for the Saudi/UAE-led coalition's brutal war in

Yemen that has fueled the resurgence of al-Qaeda in the Arabian Peninsula (AQAP).³⁴ Despite the setbacks and disruption caused by the Trump Administration, the best way forward is to adopt a balanced approach that acknowledges Tehran's interests, and that renounces the use of force to resolve differences between the U.S. and Iran, or among Iran and its regional rivals, Saudi Arabia and Israel. Military action against Iran would be destabilizing, and would likely drive Tehran to revive its nuclear weapons program while increasing the prospects of greater conflict throughout an already war-torn region. As Ali Vaez, an Iran expert at the International Crisis Group, has pointed out, a full-scale military intervention in Iran would "make the Afghan and Iraqi conflicts look like a walk in the park."³⁵

Following the regional strategy outlined above would allow for a substantial reduction in the large forward military presence that the United States currently maintains in each of these potential zones of conflict, reducing the overall size of the U.S. military.

COUNTERTERRORISM

The recent major U.S. interventions – in Afghanistan and Iraq – have both been justified in part or in full by the fight against terrorism. In Afghanistan, counter-terrorism was the rationale from the outset, starting with an effort to dislodge al-Qaeda and continuing with an eighteen-year long attempt to defeat the Taliban. In Iraq, a conflict originally (falsely) justified as necessary to reverse that nation's alleged possession of weapons of mass destruction morphed into a campaign against Al-Qaeda in Iraq, which in turn led to the creation of ISIS. Major counter-terrorism efforts are also underway in Syria, Somalia, Mali, Yemen, Libya, the Philippines and scores of other places around the world. An analysis by Brown University's Costs of War Project has found that the United States is carrying out counterterrorism operations in at least 80 locations, including counter-terrorism training in 65 locations, military exercises in 26 countries, troops in combat in 14 countries, and drone strikes in seven countries.³⁶

The U.S. decision to launch a 'global war on terror' following the September 11th attacks has come at tremendous cost. The Brown Costs of War Project puts the full price tag of America's post-9/11 wars and anti-terror efforts at \$5.9 trillion and counting, including the direct costs of the wars, related increases in the Pentagon's base budget, homeland security, defense-related interest on the national debt, and the responsibility of providing care for the veterans of these conflicts.³⁷

The budgetary costs are just part of the story. The conflicts have taken the lives of over 6,900 U.S. soldiers, and left hundreds of thousands more with serious disabilities, ranging from severe physical wounds to Post-Traumatic Stress Syndrome (PTSD) to Traumatic Brain Injuries (TBI).³⁸ The costs to all parties involved in the wars have been even higher, with over 480,000 deaths on all sides, including at least 244,000 civilians.³⁹

Despite these immense human and budgetary costs, the effectiveness of global counter-terror operations in stemming terror attacks or eliminating terrorist organizations has

been mixed at best. Tactical victories like the initial success in pushing al-Qaeda out of Afghanistan and the hard won territorial gains against ISIS in Iraq and Syria have not prevented the proliferation of new terrorist organizations around the world, accompanied by deadly attacks in major conflict zones.⁴⁰ To make matters worse, the widespread U.S. military presence has not only made U.S. troops targets of terror attacks, but it has also served as a tool for terror groups who have exploited opposition to U.S. intervention to recruit new members.

There has been a substantial decline in terrorist attacks on U.S. soil since 9/11, but it is largely due to domestic security measures, not overseas troop deployments.⁴¹ As an analysis by the New America Foundation has noted, “[f]ar from being foreign infiltrators, the large majority of jihadist terrorists in the United States have been American citizens or legal residents.”⁴² In fact, as of 2017 New America determined that “foreign terrorist organizations . . . have not directed and carried out a successful deadly attack in the country [the U.S.] since 9/11.” Rather, “the most likely threat continues to be lone individuals or pairs inspired by jihadist ideology.”⁴³

Efforts to train and equip allied militaries to fight terrorism have not fared well. The most notable example is the Iraqi military, which, despite \$25 billion in arms and training from the United States, dissolved in the face of a 2014 invasion of northern Iraq by ISIS forces.⁴⁴ Less spectacular examples abound. For example, in Africa, where the United States has deployed roughly 6,000 troops and conducts up to 3,500 exercises, programs and engagements each year, the number of terrorist organizations has grown dramatically since 2001.⁴⁵ As the independent journalist Nick Turse has noted, this phenomenon is particularly evident in West Africa:

“[T]he entire region, relatively free of transnational terror threats in 2001, is now beset by a host of militant groups. They include, according to the Defense Department’s Africa Center for Strategic Studies, the local branch of Al-Qaeda in the Islamic Maghreb, Al Mourabitoun, Ansar Dine, and the Macina Liberation Front, which all operate under the mantle of Jama-at Nusrat al-Islam wal-Muslimin, as well as Boko Haram, the Movement for Unity and Jihad in West Africa, Ansaroul Islam, and the Islamic State in West Africa.”⁴⁶

With respect to U.S. efforts in Niger, which received considerable attention after four U.S. soldiers were killed in a counter-terror mission there in October 2017, Michael Shurkin of the RAND Corporation has said that “Everything we’ve done certainly hasn’t amounted to much because everything is getting worse. None of it is really effective.” Shurkin is similarly skeptical of the U.S. military’s counterterror advising and training beyond Niger: “Simply throwing money at the existing programs strikes me as a really bad idea . . . At the very least, we’re going to waste a lot of money. And we can definitely make things worse.”⁴⁷

The militarization of U.S. Africa policy has come at the expense of opportunities for cooperation on the larger problems plaguing the continent by ignoring what Salih Booker and Ari Rickman of the Center for International Policy have described as “the real killers – namely, poverty and corruption” – both of which have created fertile ground for the development of terrorist organizations.⁴⁸

The failure of U.S. global military operations to effectively address the terrorist challenge suggests that a new approach is urgently needed. A less militarized approach that focuses on law enforcement, intelligence sharing, homeland security, and select efforts to address the underlying drivers of terrorism, such as poverty and corruption, offers better prospects for success. It would also have the distinct advantage of not worsening the problem it is intended to solve.

NUCLEAR STRATEGY

U.S. nuclear strategy needs a thorough revamping, moving towards a posture of sufficiency – a large enough arsenal to deter attacks on the United States and its allies, but no larger.⁴⁹ Such an approach would allow for a sharp cut in strategic warheads and a corresponding cut in the numbers of nuclear delivery vehicles. It would also enable the elimination of the land-based portion of the nuclear triad – Intercontinental Ballistic Missiles (ICBMs) – which poses risks of accidental or rash resort to nuclear weapons due to the extremely short time frame in which they would need to be launched on fear of attack, and the ease of targeting them given their fixed locations.⁵⁰

Unfortunately, U.S. nuclear policy is headed in the wrong direction. The Trump administration's abandonment of the Iran nuclear agreement and the Intermediate Nuclear Forces (INF) Treaty have undercut nuclear-nonproliferation and could spur the deployment of destabilizing intermediate range missiles in Europe and Asia. The distinct possibility that the Trump administration will not extend the New Strategic Arms Treaty (New START), combined with its promotion of new, low-yield nuclear weapons, could accelerate a budding nuclear arms race even as it increases the risk of a nuclear war.

New START expires in 2021 but can be extended for five years at any time prior to that date by mutual agreement of Washington and Moscow. A letter from 24 senators to President Trump – organized by Sen. Chris Van Hollen (D-MD) – underscored the crucial importance of the treaty, noting that it is “in the vital national security interests of the United States” and that letting it expire would risk “unraveling a broader arms control regime that has helped uphold stable deterrence and curb a costly, destabilizing arms race for half a century.”⁵¹ Recent statements by the Trump administration that it will seek new arms control agreements with Russia and China before considering the extension of New START bear watching, but arms control experts fear that they may be a “poison pill” designed to scuttle the existing treaty rather than a serious commitment to nuclear arms reductions.⁵² Extending New START first, and then pursuing talks with Russia and China would be a far better approach.⁵³

Box 1: A DETERRENCE-ONLY NUCLEAR STRATEGY

Current U.S. nuclear policy entails a commitment not just to nuclear deterrence – sustaining sufficient nuclear forces to dissuade any nation from attacking the United States with nuclear weapons – but to various scenarios for nuclear warfighting, which involve the possibility of the United States attacking first with nuclear weapons, either in fear of nuclear attack or in response to non-nuclear attacks.

A recent report by the organization Global Zero, which promotes a long-term goal of eliminating all nuclear weapons, argues persuasively for a “deterrence-only” policy that would allow for substantial cuts in current and proposed U.S. nuclear forces, resulting in savings of hundreds of billions of dollars over the next three decades. Global Zero describes the basic outlines of its approach as follows:

“The United States should adopt a deterrence-only policy based on no first use of nuclear weapons, no counterforce against opposing nuclear forces in second use, and no hair-trigger response. The policy requires only a small, highly survivable second-strike force and resilient command, control and communications (C3). Five new strategic submarines (SSBNs) backed by a small reserve fleet of 40 strategic bombers would fully support the policy, which requires a robust capability to destroy a nuclear aggressor’s key elements of state control and sources of its power of wealth. All other U.S. nuclear forces . . . should be phased out and all other planned U.S. nuclear force programs should be canceled.”⁵⁴

Global Zero proposes an accompanying increase in investments in Command, Control, and Communications (C3) over nuclear forces to avoid accidental or rash decisions to launch a nuclear weapon.

As noted above, to achieve a deterrence-only posture, the Global Zero plan would maintain roughly 1,100 nuclear warheads – actively deployed and in reserve – on five Columbia-class ballistic missile submarines and 40 nuclear-capable bombers. This compares to a current deployed and reserve force of nearly 4,000 nuclear warheads, and a fleet of 12 ballistic missile submarines. America’s 400 land-based Intercontinental Ballistic Missiles (ICBMs) would be eliminated under the proposal; the current plan to build 100 new nuclear bombers would be scaled back; and seven fewer ballistic missile submarines would need to be built. Savings from doing so would be counterbalanced by the increased spending on Command and Control systems, but the net savings over the next decade from adopting a deterrence-only strategy would be well over \$100 billion. See part three of this report for a more detailed presentation of potential savings from a deterrence-only nuclear strategy.

The logic of the deterrence-only strategy rests on several key propositions, including the relative invulnerability of ballistic missile submarines from attack and the need for fewer targets to carry out a strategy that does not seek to take out all known and potential nuclear targets of an adversary. This approach would be safer in several respects, most notably because it would adopt a policy of no first use of nuclear weapons, which would reduce the likelihood of an accidental or misguided nuclear attack by the United States or a nuclear adversary.⁵⁵ As ten U.S. senators noted in a July 2016 letter to President Barack Obama, maintaining a first use policy “exacerbates mutual fears of surprise attack, putting pressure on other nuclear-armed states to keep their arsenals on high-alert and increasing the risk of unintended nuclear war.”⁵⁶ The margin of safety provided by abandoning a first use policy would be reinforced by the elimination of ICBMs, thereby ending the danger posed by a policy of launch on warning that would give the president a matter of minutes to decide whether the United States was in fact under attack.

Former Secretary of Defense William J. Perry sums up the case against ICBMs as follows: “These missiles are some of the most dangerous weapons in the world. They could even trigger an accidental nuclear war.”⁵⁷

A full elaboration of the strategic benefits of Global Zero’s alternative nuclear posture is contained in their report, *The End of Nuclear Warfighting: Moving to a Deterrence-Only Posture*.⁵⁸

It should be noted that even more modest changes in the structure of U.S. nuclear forces would yield significant savings. An April 2019 report by Kingston Reif and Alicia Sanders-Zakre of the Arms Control Association (ACA) puts forward a number of alternative nuclear postures that would make the United States safer while saving considerable sums. One alternative demonstrates that the United States could deploy the 1,550 warheads allowed under the New START treaty with a force that reduces the number of ballistic missile submarines (SSBNs) by two (from 12 to 10) and the ICBM force by 100 (400 to 300), among other changes, at a savings of \$149 billion over 30 years. ACA also outlines a posture that eliminates ICBMs, reduces deployed warheads to 1,000, and goes to 8 ballistic missile submarines from 12, saving \$281 billion over 30 years.⁵⁹

As Reif and Zakre note, “the choice . . . is between the current strategy, which is excessive and unnecessary, puts the United States on course for a budgetary train wreck, and would increase nuclear risk, or a more realistic and affordable approach that still leaves the United States with a devastating nuclear force that is more than capable of deterring any nuclear threats to the United States.”⁶⁰

NEW STRATEGIC CHALLENGES

As noted above, the National Defense Strategy ignores major challenges to U.S. and global security. This section will address two of them: economic concerns and climate change.

ECONOMIC STRENGTH

Several realities prompt U.S. economic concerns: the long-term reduction in the economy's growth rate, the slowed improvement in U.S. labor productivity, growing inequality, America's declining share of the world economic pie, and the dire need to reinvest in the nation's infrastructure. Exacerbating all these issues is the renewed, sharp climb in the federal deficit and national debt. The former will soon surpass \$1 trillion per year; the latter will equal 100% of the nation's GDP within the next decade.⁶¹

The way in which excessive debt can intensify budget dilemmas is clear. Within five years, the interest paid annually on the national debt (presently \$400 billion) will grow to exceed what the nation spends on national defense.⁶²

Economic strength and resilience form an essential foundation for military power and global influence. As such, all of the above-mentioned trends prompt notable security concerns.

CLIMATE CHANGE

Turning to the challenge posed by climate change, rising temperatures and sea levels, extreme weather, and desertification will increase the frequency and intensity of natural disasters worldwide, exacerbate water and food insecurity, and increase the scope of health crises.⁶³ Public health impacts include not only increased heat stress, but also higher propagation of climate-sensitive diseases, such as meningitis, malaria, dengue fever, West Nile virus, and diarrheal diseases.⁶⁴ Negative economic effects will also be severe, potentially reducing average global income by nearly one-quarter during this century.⁶⁵

The deleterious effects of climate change will distribute unequally across regions, among countries, and within them, contributing to intra- and interstate tensions. In the Global South, climate change will subtract substantially from economic development, sapping the prospects for poverty reduction while potentially overwhelming already fragile state structures. Of course, developed economies will suffer significantly as well. According to the U.S. government's latest climate assessment, "Annual losses in some economic sectors are projected to reach hundreds of billions of dollars by the end of the century — more than the current gross domestic product (GDP) of many US states."⁶⁶

In addition to the immediate economic impact of climate change will be social dislocation and increased conflict potentials. Intensified competition over available water, food, and arable land will drive these issues further. Senior U.S. military officials and climate experts have estimated that tens of millions of people could be displaced by climate change in the next decade alone, dwarfing the number of refugees generated by the war in Syria, for example.⁶⁷ This too will increase conflict potentials. Indeed, the combination of extreme environmental conditions, resource scarcity, mass population movements, and weak and over-burdened governments may produce a perfect storm of communal violence, extremism, and interstate war.

As the world's largest institutional user of petroleum, and correspondingly, the single largest producer of greenhouse gases in the world, the Pentagon is a significant part of the problem.⁶⁸

The U.S. military has an opportunity to reduce the risks associated with climate change — and thus its associated security threats — by reducing their role in creating greenhouse gas emissions. If the U.S. military were to decrease its greenhouse gas emissions, it would make the dire national security climate change related threats it predicts less likely.⁶⁹

The need to address climate change is urgent and undeniable. Options for mitigating global warming and adapting to its effects are well developed and widely known.⁷⁰ The problem we face is one of will and resource allocation. Bringing climate change within minimally acceptable parameters will require the expenditure of at least one percent of GDP annually for several decades. According to one study, U.S. federal and private spending on mitigating climate change today falls short by \$34 billion per annum, and the requirement for building climate resiliency into our infrastructure is much greater.⁷¹

ELEMENTS OF A NEW STRATEGY

An alternative strategy for the United States requires a fresh approach, one that takes into account accelerating changes and challenges in the global environment and makes a balanced assessment of the tools needed to address these elements.

A new strategy must be much more restrained than the military-led approach adopted throughout this century, replacing a policy of perpetual war with one that uses military force only as a last resort, when vital security interests are at stake. A new approach should rely on diplomacy, economic cooperation, and other non-military efforts as the primary tools for addressing security challenges. As Lyle Goldstein has noted in the context of discussing the U.S.-China competition, there are two broad paths available for U.S. security policy going forward:

"[T]he United States faces certain stark choices. It can either seek to preserve the status quo of American global hegemony—necessitating a massive arms buildup and requiring more active and risky 'brinkmanship' to hold rising powers firmly in check. Or it can assume the much more rational and practical vision of its original founders: preserving first and foremost its own security and the liberties of its citizens, adopting a demeanor that is slow to anger, and steadfastly refusing to 'go abroad in search of monsters to slay.'"

Box 2: THE PENTAGON, FUEL USE, AND CLIMATE CHANGE

The US military is preparing for threats of attack from human adversaries that are much less likely than the certain prospect of harm due to climate change.

Global warming is one of the most certain and immediate of any of the threats that the United States faces in the next several decades. Global warming has begun and its consequences are certain: drought, fire, flooding, and temperature extremes that will lead to displacement and death. The effects of climate change, including extremely powerful storms, famine and diminished access to fresh water, will likely make regions of the world unstable — feeding political tensions and fueling mass migrations and refugee crises. In response, the military has added climate change to its long list of national security concerns.

Indeed, unlike most parts of the present administration, the military acts as if the negative security consequences of a warming planet are inevitable. It has begun to adapt its operations and installations to deal with climate change.

Yet, while some sea level rise and mass extinction has already begun, the direst consequences of climate change and the associated threats to national security are not already baked into the system. There is time to reduce ongoing greenhouse gas emissions and it is urgent to do so. The U.S. military has an opportunity to reduce the risks associated with climate change — and associated security threats — by reducing their role in creating greenhouse gas emissions. If the U.S. military were to decrease its greenhouse gas emissions, it would make the dire climate change caused national security threats it predicts less likely, with the added benefit of saving taxpayer money on fuel in the long run.

The U.S. military has emitted 1,212 million metric tons of CO₂ equivalent from 2001 to 2017. A conservative estimate indicates that of those emissions, 766 million metric tons of CO₂ equivalent were emitted in "non-standard" military operations, including "overseas contingency operations" in the major war zones of Afghanistan and Pakistan, and Iraq and Syria. Of this, total war-related emissions are estimated to be more than 400 Million Metric Tons of CO₂ equivalent.⁷²

Absent any change in policy, the fuel consumption of the U.S. military will necessarily generate continued and unnecessarily high levels of greenhouse gases. These greenhouse gases, combined with other U.S. emissions, will help guarantee the nightmare scenarios that the military predicts and that many climate scientists say are possible.

If the United States chose to scale back its forces and operations, reductions in military fuel use would be beneficial in four ways. First, the United States would reduce greenhouse gas emissions. Second, the Pentagon reducing the use of greenhouse gas emitting fuels would lessen the associated climate change threats to national security. Third, by reducing its presence in the Persian Gulf — the forces most associated with protecting U.S. access to petroleum — the United States would reap political and security benefits, including reduced dependence of troops in the field and the U.S. military overall on oil, and therefore those who provide it. Finally, as a consequence decreased spending on fuel and operations to provide secure access to petroleum, the United States could, in the long run, decrease U.S. military spending and reorient its economy to more economically productive activities, including switching to renewable energy sources.

For further analysis and background sources see Appendix A.

The first element of a new strategy must be a recognition that the U.S. homeland is relatively safe by historical standards, from conventional attack by any major power and from the risk of attacks from terrorist organizations based outside of the United States. While another major international terrorist attack on the United States remains possible, the nation is much better prepared today, while even elementary safeguards were missing 18 years ago. At any rate, large scale military action abroad is not a remedy, but more likely a stimulant of such threats. Domestic terrorism is not primarily an international threat and the policy solution does not demand military force expansion, while nuclear threats can be thwarted by a deterrence-only strategy and force posture.

Second, the major thrust of defense policy for the last 18 years – counterinsurgency efforts, nation building, preventive wars like those undertaken in Iraq and Afghanistan, and global terrorist-chasing – has done more harm than good, in some cases disastrously so. These policies have entangled the United States in conflicts that could have been avoided, destroyed regional security in the Middle East, and encouraged the growth of terrorist organizations around the globe. Abandoning such policies could lead to concomitant reductions in the size and geographic reach of the U.S. military while promoting greater security.

Third, an alternative national security policy needs to recognize that Russia does not pose a conventional threat to the United States, nor does China. Neither country has conventional military power that can compete with the United States. Moreover, both nations' security policies are primarily focused on maintaining and enhancing military power in or near their borders, or in areas where they have had historic influence.

While it is true that Russian and Chinese military activism has sporadically impinged on U.S. concerns – in the Ukraine, Syria, and the South China Sea, for instance – neither country is attempting a fundamental global military challenge to the United States, nor can they. Neither state has anywhere near the ability to match the far-reaching military power of the United States, which has the only truly global military force. Moreover, the competition between the three major powers is concentrated in the economic arena, particularly with China; and in the battle for diplomatic influence.

U.S. policy needs to rely on relations with regional allies, allowing a reduction in global U.S. troop deployments, especially ground troops, and smaller reductions in the Air Force and Navy. Alliance burdens should be borne by each member proportionate to their national resources and to the security benefits they derive from the alliance. A rebalancing of alliance commitments is long overdue. In addition to relying more heavily on allies, the U.S. should be able to surge its forces in the event of a military crisis in Western Europe or East Asia rather than maintaining large forward deployments. The notion that the United States needs to be prepared to fight two major regional wars, with active combat in one and deterrence in the second, should be discarded as a guide to military force structure.

Fourth, as suggested above, U.S. nuclear planning and strategy also need a careful overhaul. Additional nuclear forces are not the answer either to the risks of proliferation or to maintaining deterrence with existing nuclear powers. Proliferation of nuclear weapons to

Iran and North Korea are primarily a diplomatic problem; the United States retains ample nuclear deterrence in both cases. Abandoning the Iran nuclear agreement decreased U.S. security, without making any progress in preventing proliferation. The agreement had capped and rolled back Iran's capacity to develop nuclear weapons. Negotiations with North Korea, however challenging, are preferable to a war on the Korean peninsula, which would be devastating to U.S. allies in South Korea and Japan and could expose them to nuclear attack. Diplomacy needs time to work, even with fits and starts.

Overall U.S. nuclear strategy should move towards a posture of sufficiency – a large enough arsenal to deter attacks on the United States and its allies. No additional capability is needed. As noted above, restraint in nuclear planning would allow for a reduction to 1,100 total warheads from a stockpile that currently stands at roughly 4,000. It would include the elimination of the land-based portion of the nuclear triad – Intercontinental Ballistic Missiles (ICBMs) – which pose risks of accidental or rash resort to nuclear weapons due to the extremely short time frame in which they would need to be launched on fear of attack.

Fifth, the most urgent challenges to U.S. security are non-military and the proper national security tools are different. These risks include climate change, which undermines frontiers, leads to unpredictable extreme weather, and fosters uncontrollable migration; cyber-attacks and cyber offensive operations, which devastate the credibility of the internet and pose challenges to infrastructure security; global disease epidemics, which pose societal risks to all nations; and income and wealth gaps, which foster insecurity and conflict. On the economic front, by 2050 the global constellation of economic power will be as different from today's as today's is from 1920. This is among the most important emerging realities facing the United States, as it concerns not just economic power but all forms of national power and all aspects of national life.

Military force is not the most useful tool to confront the above-mentioned challenges, but the devotion to allocate outsized resources to the military stands in the way of their solution.

Last but not least, a new strategy should put as much or more emphasis on diplomatic cooperation as it does on preparing for or engaging in military confrontation. Foremost, the United States must retain ample capacity to defend itself, protect its citizens and assets abroad, and meet its alliance commitments. However, there are additional global security interests and goals shared in common by all members of the international community. The United States must partner with other nations in addressing challenges like climate change, epidemics of disease, nuclear proliferation, and human rights and humanitarian crises. None of these challenges are best dealt with by military force. Rather, they will depend on building non-military capacities for diplomacy, economic assistance, and scientific and cultural cooperation and exchange which have been allowed to languish in an era in which the military has been treated as the primary tool of U.S. security policy.

PART TWO: THE DEFENSE BUDGET—PAST, PRESENT, AND FUTURE

MISMATCH BETWEEN DEFENSE SPENDING TRENDS AND THE WORKINGS OF THE DEFENSE ESTABLISHMENT

In November 2018, the National Defense Strategy Commission, chaired by former Ambassador Eric Edelman and Admiral (ret.) Gary Roughead, issued an alarmist report contending that caps imposed by the Budget Control Act of 2011 (BCA) threatened unpredictable and lower defense spending. Ominously, the Commission contended that the United States “could suffer unacceptably high casualties and loss of major capital assets in its next conflict,” and might “struggle to win, or perhaps lose, a war against China or Russia” if spending did not increase substantially.⁷³

The Commission blamed BCA spending caps and the “threat of unpredictable and delayed funding” under continuing resolutions for jeopardizing the strategy.⁷⁴ Although it did not claim to be able to identify the resources needed to fulfill the strategy, the Commission called for 3% to 5% annual increases above inflation over the next five years or longer to “create and preserve U.S. military advantages in the years to come.”⁷⁵

What the Commission’s report failed to mention is that this would quickly increase the Pentagon’s budget to more than a trillion dollars per year, which would be the highest level of Pentagon spending since World War II. Needless to say, this budgetary suggestion would be extraordinarily wasteful and, just as importantly, is completely untethered from the strategic environment that the United States currently faces.

Yet, calls for extraordinary budget increases without clear security justifications have become the norm rather than the exception when it comes to the Pentagon. While it’s a common refrain that strategy should determine budgets, that is actually a rarity at DOD. Theoretically, U.S. military strategy provides a rough guide to setting the Pentagon’s priorities and, ultimately, its budget. In fact, choices among individual programs and funding levels are made during the Pentagon’s elaborate Planning, Programming and Budgeting process, which develops and presents the President’s request sent to Congress annually in February (or March in 2019). Yet, this process depends on and locks horns with other players, ranging from Members of Congress and other executive agencies like the State Department, to defense industry giants and their lobbyists, to states and localities. Each of these players has high-value stakes in the jobs tied to purchases of weapons systems and RDT&E, as well as those created by bases, and in the pay and benefits for military personnel (see sidebar on Pentagon spending and jobs at the end of this section). As all these competing interests mold the Pentagon budget, connections between strategic priorities and budget choices often become obscured, if not outright eliminated.

This elaborate budget and planning process, coupled with intense lobbying as the defense budget is considered by Congress, has caused considerable uncertainty in defense spending over the past 70 years. This uncertainty has worsened in the past 18 years with the demands created by the Afghan, Iraq, and Syrian wars, as well as shifts in strategic emphasis from fighting insurgencies and terrorists to confronting China and Russia. While the 2011 BCA required modest cuts to the historically high level of defense spending, it also offered a predictable path to which DOD could have adapted and planned to follow. While there was nearly unanimous opposition to the BCA caps, were the cuts proposed actually that extreme? In short, no.

In 2011, the BCA set spending limits for the fiscal years between 2012 and 2021. Under the BCA's original spending caps for defense and non-defense—to be enforced by across-the-board sequesters if limits are not met—defense spending was slated to fall by almost 14% in real terms between 2011 and 2014 and then grow by a little less than 1% for the rest of the decade. This would have returned the Pentagon's base budget to what it was just a few year's prior, when the United States was waging wars in both Iraq and Afghanistan.

Given the BCA's modest decrease and predictability, one might have expected that high-level military officials and generals, members of Congress and other policymakers, and even lobbyists would have welcomed the smooth spending path created by the Act. Instead, a bitter fight erupted from the very beginning with defense hawks and other policymakers complaining that the new limits would “decimate” defense readiness and modernization, and put the U.S. at the mercy of its adversaries.

While there is little doubt that most in the Pentagon would prefer more resources rather than steady funding at lower levels, the wholesale condemnation of steady BCA caps fails to acknowledge that the defense establishment would benefit substantially from predictable spending that would match its deliberate and slow-moving modernization and manpower decisions with implementation taking place over decades.

As we document in this section, there is ample evidence that the BCA caps were neither extreme nor actually adhered to, but still could provide guidance towards a much more fiscally sustainable and predictable budgetary path in the future. It is thus the recommendation of this task force that, beginning in FY2020, defense spending returns to the level of the BCA caps, with annual inflation adjustments in subsequent years. Compared to the President's plan, this task force's alternative would save taxpayers more than \$1.2 trillion dollars over the next ten years.

WAR BUILDUPS AND DRAWDOWNS: PEAKS AND VALLEYS IN DEFENSE SPENDING, 1948-2019

Since 1948, defense spending has been cyclical, with sharp increases before and during the wars in Korea and Vietnam, the Reagan Cold-war buildup, and the long-lasting wars in Afghanistan, Iraq, and Syria; and sharp decreases after hostilities diminished or deficit

concerns decreased spending during the Reagan era (see Figure 1). While defense spending increased sharply with each war, it generally declined after each conflict by significantly lesser amounts (see Figure 1). Both the President's plan and the National Defense Strategy Commission's suggestion would break this long-standing historical pattern, by increasing Pentagon spending while winding down wars.

The drawdowns after each war have not been uniform, and in our current experience with the Afghan, Iraq, and Syrian wars, there has been only a minimal drawdown, followed by a substantial increase under the Bipartisan Budget Act of 2018, or BBA (see Figure 2). While defense spending shot up over four-fold for the brief Korean War, post-war spending fell by just 60%. This post-war defense spending at a substantially higher level than before the war signaled the beginning of our era of permanently large defense forces in response, at least initially, to the Communist threat that persisted from the 1950s until the fall of the Soviet Union in 1991 (see Figure 2).

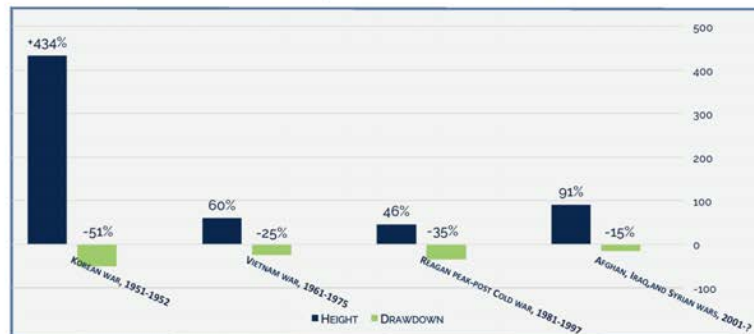
FIGURE 1: DoD TOTAL SPENDING FOR BASE, SUPPS, WARS, 1948-2019 IN BILLIONS OF 2019 \$



During the 15-year Vietnam War, spending grew by 60% in real terms, rising steadily with troop levels, and peaking in 1968 with spending of \$434 billion in 2019 dollars and U.S. troop levels at 536,000.⁷⁶ In the next several years, spending and troop levels declined gradually by an average of 25% until the final U.S. withdrawal in 1975, again settling well above the pre-war level.

The height of the Reagan era defense buildup was in 1985, a 46% increase from before the buildup. In response to rapid growth in deficits, the fall of the Soviet Union, and the disappearance of the Communist threat, this buildup was reversed with a decline of 35% by 1997.

FIGURE 2: BUILDUPS AND DRAWDOWNS, 1951-2019 IN PERCENT CHANGE



For the wars launched after the 9/11 attacks first in Afghanistan, then Iraq, and more recently Syria, the pattern of large growth followed by lesser declines is more pronounced. Total DOD spending almost doubled from \$425 billion in FY2000 to \$812 in FY2010, peak levels in both war funding and base budget funding.⁷⁷ U.S. troop levels deployed for war also peaked at 180,000 in 2010.

After 18 years of war, U.S. troop levels in-country for the Afghan, Iraqi, and Syrian wars are projected to be about 22,000 in FY2020, according to the President's Budget Request.⁷⁸ This is roughly one-ninth of the 2010 peak number of troops, while war spending in FY2020 is projected to be nearly equivalent to what it was in 2010 - \$165 billion compared to \$163 billion, respectively, in 2019 dollars. This discrepancy reflects not actual war costs but a deliberate decision by the Administration to make nearly \$100 billion in base budget costs for peacetime support of the defense establishment part of the Overseas Contingency Operations (OCO) account in order to avoid budget caps in effect in 2020.

SPENDING FOR EVERYDAY DEFENSE PROGRAMS AND ACTIVITIES VS. WAR SPENDING, FY1976-FY2019

Reflecting the power of war as a rationalization of day-to-day defense spending, Figure

3 shows that since 1976, base budget spending has risen and fallen with wars. Over the past 30 years since the adoption of a volunteer force, defense spending has averaged \$529 billion in 2019 dollars, correcting for inflation. In the past decade, defense base spending has substantially exceeded that average (see Figure 3).

FIGURE 3: DEFENSE SPENDING, FY1976-2019 IN BILLIONS OF 2019 \$



THE BUDGET CONTROL ACT: FROM 800 POUND GORILLA TO PAPER TIGER

Enacted in 2011 after a long debate, the Budget Control Act was intended to be part of a larger exercise to reduce both discretionary spending (enacted annually) and mandatory spending for entitlement programs. The goal was to combat the rising federal deficit in the short-term, and the burgeoning expenses in response to the retirement of the baby-boom generation and ever-increasing medical spending in the long-term.

When the BCA's Joint Commission failed to deliver a plan, the BCA called for the setting of spending caps on defense and non-defense spending—known as automatic sequester caps—to limit spending to pre-set caps or risk across-the-board cuts to be applied equally to all programs and activities. The across-the-board cuts are referred to as the sequester. In 2012, the first year, Congress adopted spending limits compliant with the law.

The second year required a sequester that was implemented in March 2013 – modified

by Congress to apply midway through the fiscal year. Under the sequester, all defense resources were cut by just under 7% in nominal terms in 2013, and by modest amounts in later years.

Despite the modest decreases in defense spending, it was greeted with an outcry from many quarters, and continues to be cited as degrading defense readiness, and disastrously affecting ongoing programs. In 2013, for example, service chiefs argued that readiness, retention and morale would be harmed, acquisition programs would be delayed, and weapons system buys would be cut delaying modernization, all of which could jeopardize DOD's ability to "execute sustained successful major combat operations," the Army's Chief of Staff, General Ray Odierno told Congress in 2013.⁷⁹ This critique matches comments by many defense officials and defense industry lobbyists and advocates that characterized the spending limits in the BCA as disastrous.

Analysts without a vested interest in higher defense spending did not share these concerns. For example, a GAO report regarding the sequester cut of 7% in 2013 pointed out that there was little indication of significant harm from the sequester—cancellation of some training exercises and delays in some contracts.⁸⁰ Similarly, a CRS report found that the DOD had considerable flexibility in implementing the sequester to protect readiness and key programs.⁸¹

Yet, critics cited the sequester threat as an 800-pound gorilla lurking in the shadows and used this threat as justification to ensure that the BCA caps were never fully adhered to after 2013. Alarmed by the 2013 sequester, Congress promptly revised the 2014 and 2015 caps by modest amounts to permit higher spending levels—an increase of \$17.9 billion in 2014 and \$9.2 billion in 2015. Then, still convinced that the DOD was suffering grievously from lower future levels, Congress again raised caps for 2016 and 2017—\$25.0 billion in 2016 and \$15.0 billion in 2017. Finally, after a long, drawn-out battle over spending levels, Congress passed the Bipartisan Budget Act of 2018, which raised spending from the original caps that were in effect by enormous amounts—\$80 billion, or a 14% increase above the caps in 2018, and \$85 billion, or 15.1% above the caps in 2019 (see Figure 4 below).

WAR SPENDING SUBSIDIZES THE BASE BUDGET

Raising the BCA caps isn't the only way Pentagon spending has remained high throughout the BCA decade. In order to avoid the spending decreases in the original BCA sequester caps, the Administration, the Pentagon, and Congress colluded to exploit a loophole in budget law governing emergency or war spending. Designed to give budgetary flexibility to meet natural and other disasters, current law does not count spending that is designated by the President and Congress as for "emergencies" or "Overseas Contingency Operations" (OCO) against budget or spending caps.⁸²

War spending has not only allowed DOD to skirt BCA spending limits but has also subsidized DOD's day-to-day defense spending. Since the early years of the Afghan and Iraq

wars, defense spending designated for emergencies or OCO that actually funded base budget priorities has totaled \$149 billion based on DOD data.⁸³ This “non-war” war funding has financed a variety of base budget activities, from unanticipated higher fuel prices or base housing costs to implementing a new modular design for Army brigades and additional depot maintenance. Because there are no statutory criteria for what is designated as “emergency” or “OCO,” Congress and the Administration can choose to include spending not related to wars within the war budget. In other words, if the President and Congress chose to characterize painting the walls of the Pentagon pink as war spending, that would not be subject to BCA caps.

In recent years, DOD has also funded new programs costing billions of dollars under war spending, like the European Reassurance Initiative, designed to counter Russian threats to the Ukraine with additional exercises and pre-positioning of activities for NATO allies. With these ‘regular’ activities funded as war expenses, Congress created ‘headroom’ for additional weapon systems, RDT&E, or other favored activities within the BCA spending limits.

In addition, Congress has explicitly transferred activities requested in the base budget to war spending despite the fact that there’s no connection to war needs. As the crowning blow to the legitimacy of war spending, DOD included \$98 billion in base budget costs as OCO in its 2020 request in order to pretend that the base budget request complies with the BCA cap. The Department makes no pretense that the funds are for war purposes, leaving it to Congress to either raise the caps or accept the mockery of the war designation.⁸⁴

By including activities and programs that are expected to last after the United States leaves Iraq and Afghanistan, commonly referred to as “enduring” costs, the size of DOD’s regular budget has been under-stated, and war costs over-stated. Until the 2020 request, DOD argued that the defense budget should be raised to accommodate these ongoing expenses. Regardless of where these activities are funded, this transfer suggests that the apparent ‘pain’ from BCA limits has been much less than appears and that defense spending for its regular programs is substantially higher.

Ostensibly to replace war losses, procurement of weapons systems and RDT&E have been used as another war fund subsidy to DOD’s base spending. The rationale used is that replacing weapon systems improves the quality of DOD’s inventories by reducing the age of weapon systems, accelerates modernization, and contributes to capability. In the same way, RDT&E to counter Improvised Explosive Devices (IEDs), financed with war monies, in fact, contributes to the military mission of countering insurgents wherever that occurs in the future.

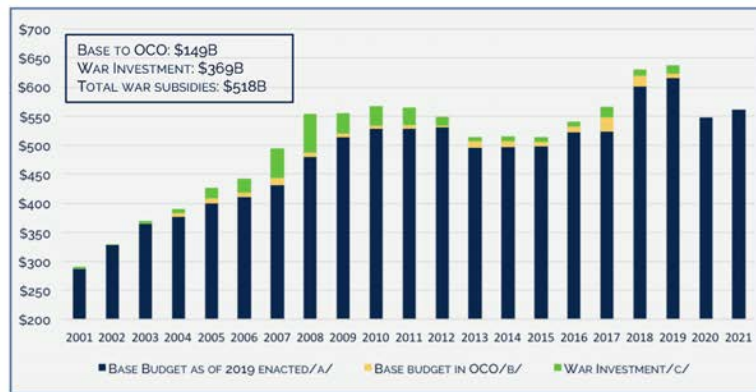
Perhaps the most dramatic example of war funding subsidizing modernization is the reliance of the Army on war funding to replacing the Army’s entire primary ground combat fleet rather than the partial replacement originally planned. This wholesale modernization would not have been possible without the “unexpected bonuses from the supplemental war funding,” according to a Stimson Center analysis by Russell Rumbaugh.⁸⁵

Counting investment funded in the war budget adds \$370 billion in procurement and

RDT&E activities since 2001 to DOD's base budget, which contributes to military modernization and effectively subsidizes the base budget.

Together, these subsidies totaled \$518 billion since 2001, equivalent to an additional year of defense spending. For the annual contribution to base budget funding of these war-designated monies, see Figure 4 below.

FIGURE 4: DoD BASE BUDGET WITH AND WITHOUT WAR SUBSIDIES, FY2001-2021
IN BILLIONS OF DOLLARS



THE BCA DECADE: A GOOD ONE FOR DOD

Despite the vociferous complaining and ominous warnings from DOD spokesmen and defense hawks in Congress, the BCA decade has turned out to be a very well-funded decade for DOD, undermining the argument that substantial increases are needed to offset the BCA cuts.

Figures 5 and 6 below show how defense spending levels have changed for the decade, starting with the President's plan in 2012, cited by many BCA critics as the desirable level. That plan projected \$6.4 trillion in spending for the BCA decade, FY2012-FY2021. Counting the subsidies to the base budget provided by war spending along with current caps, DOD is slated to receive \$5.8 trillion. This reflects both higher caps enacted by Congress in 2013, 2015 and 2018, which provided \$5.7 trillion for the decade and \$183 billion in war subsidies. This level of spending for the base budget with war subsidies is over one

trillion higher than the prior decade of \$4.7 trillion before enactment of the BCA, when hostilities in both Iraq and Afghanistan were at their peak. In other words, despite the U.S. military significantly drawing down from, though not yet ending, the wars in Iraq and Afghanistan, DOD actually received a trillion dollars more in the BCA decade than in the prior decade while these conflicts were raging.

FIGURE 5: CHANGING DEFENSE SPENDING BEFORE AND FOR THE BCA DECADE

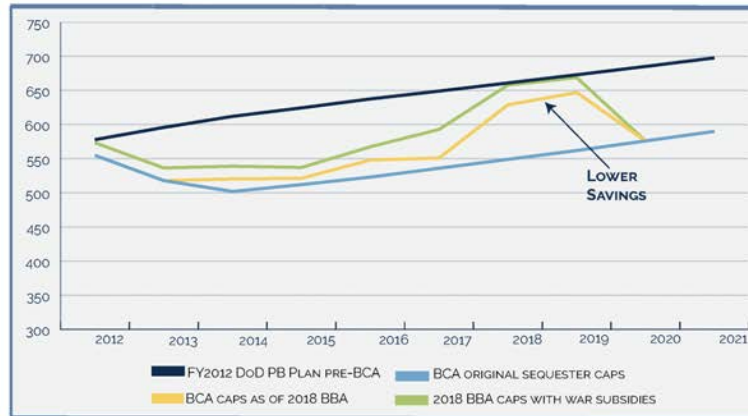


This suggests that the critics – citing threats to readiness and modernization – have greatly overstated their case. If there is a readiness or modernization issue it is not because the DOD hasn't been given ample taxpayer money – it's because the DOD bureaucracy has not been spending that taxpayer money effectively. Even factoring in low inflation levels, defense spending is at very healthy levels, as Figure 6 also shows. In fact, including war subsidies, by 2018, DOD's base budget under the revised BCA limits and with the war subsidies equals the 2012 plan.

While the above-mentioned issues fester, the original BCA caps for FY2020 and FY2021 still remain in effect. It could be argued that the substantial increases received by DOD over the past decade make such increases unnecessary, even more so because the additional spending has been ineffectual.

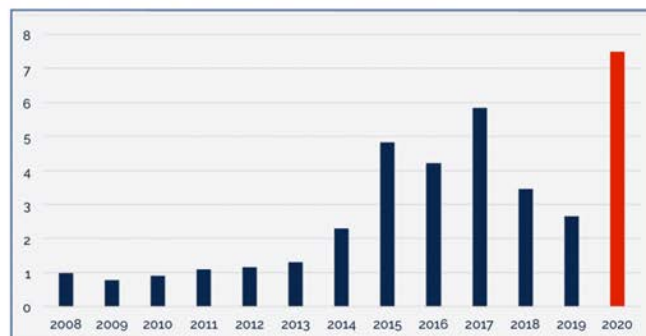
The gimmick of using OCO to pay for base budget expenses has been exploited in the Pentagon's FY2020 Budget Request to an extent never before seen, with nearly \$100 billion in OCO funding explicitly tied to the base budget. As Figure 7 shows, this provides a radically distorted view of the cost per troop in these overseas contingency operations.

FIGURE 6: ALTERNATE DEFENSE SPENDING PATHS, FY2012-2021 BASE BUDGET



Costs per troop overseas have risen since 2013, as the Pentagon placed more base budget requirements in the OCO account. However, the FY2020 budget would raise the cost per troop in these contingency operations to unprecedented levels.

FIGURE 7: COST PER TROOP IN OCO (IN MILLIONS OF \$/TROOP)



DEFICITS AND THE NATIONAL DEBT AT HISTORIC HIGHS

It goes without saying that defense spending has been, and will continue to be, a significant contributor to annual budget deficits and the national debt. As the original Sustainable Defense Task Force report noted nearly ten years ago, the national debt threatens our economic solvency and could ultimately limit our governments' ability to pay its bills, including those of the military.⁸⁶ In 2010, then Chairman of the Joint Chiefs of Staff,

Admiral Mike Mullen, declared, "our national debt is our biggest national security threat."⁸⁷ In the nine years since Admiral Mullen made this declaration the nation's public debt has not shrunk. In fact, it has increased by more than \$5 trillion, to nearly \$16 trillion, and remains one of the greatest threats to U.S. national security.⁸⁸ Under the President's FY2020 plan, this situation will only get worse. In fact, if the President's budget is fully implemented, annual budget deficits will exceed all defense spending within five years.

A HISTORY OF DEFICIT SPENDING

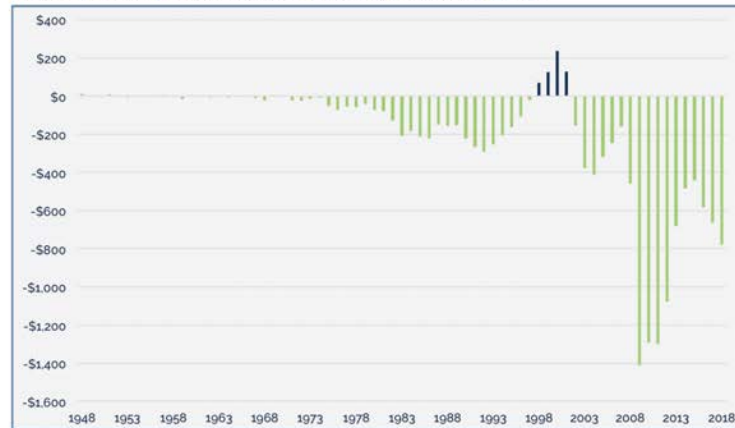
Debt and deficits are nothing new for the federal government. In fact, in the last fifty years the federal government has run an annual budget deficit in all but five years—1969 and 1998 through 2001.⁸⁹ Figure 8, illustrating data from the Office of Management and Budget, shows deficit spending has been a bipartisan affair, with the national debt growing under both Republican and Democratic control of Congress and the Presidency.⁹⁰

Historically speaking, there has been a correlation between defense spending and federal budget deficits. As shown in Figure 8, it's readily apparent that the largest budget deficits occurred during the height of President Reagan's Cold War military buildup in the mid 1980's, and during the height of spending for the wars in Iraq and Afghanistan in the first years of the President Obama administration. To be sure, the extraordinary budget deficit in 2009, that was nearly 10% of Gross Domestic Product (GDP) had many contributing factors, not the least of which was the \$700 billion bank bailout following the financial crisis in 2008.⁹¹ However, the DOD budget was also nearly \$700 billion in 2009, so at least numerically, the two contributed almost equally to the extraordinary budget deficit in that year.

DEBT AND DEFICITS TODAY AND TOMORROW

As Figure 8 above indicates, annual budget deficits remain well above historical averages. The budget deficit in FY2019 is projected to be \$900 billion according to the Congressional Budget Office (CBO), and federal debt held by the public will top \$16.6 trillion by

FIGURE 8: ANNUAL FEDERAL BUDGET DEFICITS IN BILLIONS OF 2019 \$



year's end.⁹² Over the next ten years, America's deficit and debt problem will get much worse. Annual budget deficits will exceed \$1 trillion by 2022 and continue to increase the remainder of the next decade. By 2029 the public debt will be nearly \$29 trillion, or 93% of GDP, which is "its highest level since World War II," according to CBO's projections.⁹³

According to the President's FY2020 budget, beginning in 2024 and continuing every year after, interest payments on the national debt alone will exceed annual spending on the military.⁹⁴ This debt burden will significantly impede the government's ability to respond to unforeseen crises and could seriously limit the amount of government funds available to the military if a true surge were actually needed.

BOX 3: THE VALUE OF A WAR TAX

Democracies like the United States are supposed to fight fewer wars, win when they do fight, and exit them quickly if victory is unattainable.⁹⁵ Why has the opposite been the case for the United States thus far in the twenty-first century? Part of the explanation lies in the way the United States has paid for its post-September 11th wars, namely via the nation's credit card—the national debt. To address this problem, the United States should adopt a special purpose tax to pay for the use of military force. Put more simply: the country needs a war tax.

A war tax is a matter of fiscal responsibility, economic stability, and political accountability. First, wars are costly. The bills for them can be paid up front or passed on to future generations. The budgetary costs of America's post-September 11th wars are estimated to be around \$5.9 trillion. War-related interest on the debt thus far makes up \$716 billion of the estimated cost, while another \$420 billion is projected through fiscal year 2023.⁹⁶

Second, debt-financing wars can lead to economic instability. Unless offset by taxes, rapid upsurges in borrowing to facilitate military buildups act as a form of procyclical stimulus that fuels boom-bust cycles.⁹⁷ Even under a strategy of

Box 3 Cont.

restraint, there will be circumstances in which the United States might need to engage in a military buildup, and because economic downturns are rare, when such buildups occur, they are likely to be procyclical.¹⁰⁸

Third, and most important, debt-financing disconnects the public from the consequences of government policies. In theory, in democracies, the need for public consent to go to war should act as a constraint on elected leaders—who will be wary of passing the costs of the war on to the public through increased taxes.¹⁰⁹ In reality though, elected officials choose how to finance wars based on their political needs. When public support for the use of military force is low, and fears of inflation are too, wars are more likely to be

debt-financed.¹⁰⁰ While the public laments accumulating debt, it has little immediate impact.¹⁴¹ Taxation, on the other hand, is one of the most intrusive activities governments engage in vis-à-vis their citizens.¹⁶² An intrusive tax would make the costs of wars more transparent to the public and more likely to be subject to democratic accountability.¹⁶³

Should the United States pursue a war tax, several principles should guide its implementation. First, a war tax needs to cover both the immediate and long-term costs of a conflict. As discussed above, the overall price tag for America's post-September 11th wars will include more than military operations. It will also include interest on the debt and post-conflict medical care for military personnel.¹⁶⁴ The latter will prove particularly costly now and in future conflicts due to advances in military medicine that allow for life-saving treatment of those wounded in combat.¹⁶⁵

Second, a war tax needs to be automatic. The Truman administration increased taxes at the outset of the Korean war, when public support for the conflict was high. The public remained connected to the war, and popular support declined as the conflict seemed to lack resolution.¹⁶⁶ While the Vietnam War was not unpopular at its outset, it lacked robust public support. The Johnson administration avoided direct taxes to finance the war for fear of the political repercussions of greater public involvement. Only when the administration became concerned about inflation stemming from domestic borrowing did it call for a surcharge on income in 1967, though it struggled to build political consensus around the tax as support for the war declined.¹⁶⁷ If tax increases automatically accompany the use of military force, political leaders may be less likely to initiate conflicts that have only tenuous public support.

Third, and related, the instrument used for a war tax is important. A direct tax will maintain the link between the American public and the costs of a conflict. Indirect taxes, such as sales taxes, can be avoided by consumers who choose to forgo purchases of products being taxed.¹⁶⁸ The tax can also be progressive or broad-based, but the latter is more likely to be effective. Elite, partisan cues tend to influence public sentiment on both taxes and the use of military force.¹⁶⁹ Republicans' decades-long opposition to progressive taxation, and hawkishness on national security issues suggests a progressive war tax may therefore be more effective under certain conditions.¹⁷⁰ However, it is unclear whether cues against progressive taxation

would outweigh cues in favor of the use of military force when given by a Republican president. Moreover, progressive taxation and inequality distributes the cost of war upward in society.¹⁷¹ While it is reasonable to believe the wealthy should pay for a higher proportion of the financial cost of war, the broader American public might remain disconnected from the policy as a result.

Fourth, any war tax should also be accompanied by a pay-as-you-go (PAYGO) rule. A PAYGO rule is a statutory mechanism to ensure new spending is deficit neutral.¹⁷² Elected officials may attempt to offset a tax increase to pay for a conflict with tax cuts elsewhere. Including a PAYGO provision for spending on new military operations would mean that political leaders' only option to ameliorate the impact of a war tax would be to make politically unpalatable budget cuts.

Finally, it is important to understand the limits of what a war tax can accomplish. The lack of tax increases to pay for America's wars since 2001 is one reason they continue with little chance of achieving their aims. However, a war tax is not a silver bullet. Declining global norms regarding the need to affirmatively declare war, fewer battlefield deaths as a result of improvements in military medicine, and new technologies that enable a "light footprint" approach to war contribute as well.¹⁷³ A war tax cannot address all of these contributors. It can, however, help reestablish the connection between the American people and the wars fought in their name while limiting their impact on the national debt, and in doing so, the risk debt-financed military buildups pose to the economy.

AN UNSUSTAINABLE DEFENSE: THE PRESIDENT'S PENTAGON SPENDING PLAN

The coming debt crunch on funds available to the government will be made significantly worse if the President's FY2020 Pentagon budget projections come to fruition.

In Figure 9 we chart the Administration's FY2020 plan, along with the National Defense Strategy Commission's minimum recommendation of increasing Pentagon spending at least 3% above inflation, and an estimate of Pentagon spending if the BCA caps were extended and increased at the rate of inflation. In this chart the President's budget includes the large "base for OCO" funds in FY2020 and FY2021, which the Administration designates as OCO to pretend that they are meeting BCA Caps, and excludes "true" war costs. In FY2022 the base budget heightens, as the Administration plans to abandon the gimmick of hiding base budget funding in OCO, and return base budget funds to the actual base budget. This results in a base budget increase of 8%, from \$684 billion in FY2021 to \$740 billion in FY2022. After that, the President's budget basically increases with inflation. It's worth noting that nowhere in the Administration's plan or the National Defense Strategy Commission's plan are there reductions in spending to account for the U.S. fully withdrawing from Iraq and Afghanistan.

FIGURE 9: ALTERNATE NATIONAL DEFENSE SPENDING PATHS: FY2020-FY2029



There are a few possible metrics to help put the Administration's ten-year plan in context. First, the Administration plan calls for approximately \$7.6 trillion in Pentagon spending over the next ten years, which would be nearly two trillion more than the approximately \$5.8 trillion the Pentagon received in the previous decade. Second, this \$7.6 trillion would be roughly \$1.25 trillion higher than extending the BCA caps plus inflation, as shown in Figure 10 below. Third, the Administration's plan would be approximately one trillion below the National Defense Strategy Commission's minimum recommendation of a 3% annual real (above inflation) increase in Pentagon spending.

Needless to say, adhering to the Administration's plan would lead to a considerable increase in the national debt, and following the National Defense Strategy Commission's recommendation would be extraordinarily fiscally irresponsible. Moreover, at a time when the United States is planning to end the two longest wars in U.S. history—as President Trump has already announced—there is ample justification for Pentagon spending decreasing, not increasing. As we discuss in the following section, there are myriad options for doing exactly that and adopting spending levels that adhere to BCA cap levels, plus inflation, for the next ten years.

FIGURE 10: GAPS BETWEEN BCA CAPS EXTENDED AND FY2020 ADMINISTRATION PLAN AND 3% REAL GROWTH (IN BILLIONS OF \$)



Box 4: PENTAGON SPENDING IS A POOR JOBS CREATOR

One of the most powerful arguments against reducing the military budget is that all those dollars create a lot of jobs. They do. But this is not the end of the story.

Year after year, the military and its army of private contractors receive over half of the federal funds Congress votes to spend. The contractors and their military and congressional allies then take care to spread this money into every congressional district. The jobs that depend on this spending serve as political protection for maintaining or even expanding the current allocation of taxpayer dollars to the Pentagon.

Yet, that doesn't mean that this huge job creator is the best job creator. Actually, studies have repeatedly found the opposite: that military spending is one of the poorest ways to generate employment.¹¹⁴ The most recent work by economists at the University of Massachusetts found that a million dollars invested, for example, in wind energy would create 21% more jobs than the same amount spent on the military. Investing the money in elementary and secondary education would produce 178% more jobs. Military spending also does more poorly than a range of other investments, including health care and infrastructure.

The difference comes in part from the greater capital investment, on average, required by military production than by these other kinds of economic activity. In addition, military production steers an unusually higher percentage of jobs outside the U.S., through the international co-production deals that contractors negotiate to promote their arms exports. For example, Lockheed Martin predicted that a recent deal with Saudi Arabia for Black Hawk helicopters would "support" 900 jobs. But as Jonathan Caverley pointed out, half of those jobs would go to Saudis.¹¹⁵

Similar findings have come from government sources. Caverley notes that in 2016 the Commerce Department estimated that a billion dollars worth of U.S. arms exports would produce 3,918 jobs, as opposed to the 5,700 that could be expected from U.S. exports in general.¹¹⁶

We all want our federal dollars to create the jobs that America actually needs doing. Every year the Pentagon budget includes millions of dollars of appropriations for weapons the military itself says it doesn't want or need. The pushback is always: Maybe the military doesn't want them, but so many jobs depend on building them anyway. This is a textbook argument for waste.

This report makes the case for paring back wasteful spending like this, and redirecting it to where it's needed. As we note elsewhere, the military itself sees climate change as a "growing and urgent" security threat. It should be clear that more future jobs should be focused on building the structures of climate change mitigation and adaptation into the American economy.

Crucially, creating the new jobs of the future requires a fiscal shift: Redirecting the portion of our federal budget now devoted to make-work military projects toward investments in the jobs America needs, including those focused on climate security.¹¹⁷ Military producers, like nearly all others, tend to follow the money. Tip the balance of federal financial incentives in a new direction, and many of the producers, and the jobs they control, will follow. Macroeconomic benefits will accrue. A cohort of jobs wholly supported by federal taxpayer dollars will transition to one in which federal dollars join forces with those from state, local and private sources.

Yet, the transition from military to civilian production can be hard, and done poorly, it can backfire. A job in the hand is worth two in some other bush. Change is hard, and inertia is a powerful force. How can we overcome that force to create the jobs America needs?

After the Cold War, U.S. military spending was cut by a third. Federal and state governments created an array of programs in response. Among them were adjustment assistance programs for displaced defense workers, including specific retraining initiatives such as Troops to Teachers; technology development programs teaming military and commercial manufacturers to commercialize defense technologies; manufacturing assistance programs for small businesses; and loan programs helping businesses finance diversification beyond defense.

To overcome resistance to a transition from make-work jobs to productive ones, we should consider building job bridges with pillars like these.

PART THREE: OPTIONS FOR REDUCING SPENDING

As Part One of this report explained, U.S. national defense strategy has been characterized by military overreach, which has had disastrous consequences. The two longest wars in U.S. history have cost us extraordinary amounts of blood and treasure. The United States continues to subsidize the security of the world as we play world policeman, with U.S. troops on the ground in most countries around the globe. A strategy of restraint would upend this paradigm, bring many of our troops home, and end the policy of asking U.S. taxpayers to foot the bill for other nations' security. It is thus clear that Pentagon spending should be reduced considerably.

As Part Two of this report explained, cries of underfunding are belied by the simple fact that Pentagon budgets are already near historical highs, despite the number of troops in Afghanistan and Iraq/Syria being a small fraction of what they once were. With the President promising to end these wars and reduce the military's role in subsidizing the security of other nations, the Pentagon budget should be going down, not up. It is thus also clear that Pentagon spending can be reduced considerably.

A re-thinking of military strategy and a history of defense budget trends show that there are ways to reduce spending and still keep the United States safe and secure. In this section we provide a list of options to make that possible. Taken collectively the list offers more than \$1.25 trillion dollars in possible reductions to Pentagon spending. This is far from an exhaustive list of all the possible ways in which savings could be found at the Pentagon, but it would allow the Pentagon budget to return to the level of the BCA caps plus annual adjustments for inflation, as we outlined in the previous section. To be sure, some of the options presented in this section overlap with others and thus the potential savings cannot simply be added. Instead this list is a menu of options for those seeking to reduce wasteful spending at the Pentagon and provide a sustainable level of defense spending that will reduce the national debt, curb the reliance on U.S. taxpayers to subsidize the world's security, and keep U.S. troops out of conflicts where U.S. interests are not at stake. In short, this lower level of spending will actually provide a higher level of security.

The list is broken out into three general categories—force structure and weapons procurement reductions, overhead and efficiencies, and nuclear weapons, missile defense, and space reductions. The discussion under each of the options provides an explanation for why the cut is recommended and how the estimate was derived. Additionally, Appendix B provides a detailed account of the methodology used to estimate savings from the force structure recommendations.

FORCE STRUCTURE AND WEAPONS PROCUREMENT REDUCTIONS

U.S. GROUND FORCES - ARMY AND MARINE CORPS

The proposed Sustainable Defense Task Force (SDTF) alternative force structure significantly reduces U.S. ground forces—the U.S. Army and Marine Corps. While these comprise about 50% of America's military personnel, they would bear about 60% of the total reduction in end strength in this alternative proposal.

There are several reasons for the relative emphasis on ground force reductions. Foremost is the strategic decision to abstain from future regime change, counterinsurgency, and nation-building campaigns. Also for this reason there is an emphasis on the reduction of regular or light infantry forces, not mechanized ones. With regard to fulfilling alliance commitments in Europe, Asia, and elsewhere, the proposed alternative would put greater emphasis on rapidly surging those capabilities that embody our armed forces' greatest competitive advantages - air, naval, space, and special operations forces. Nonetheless, under the SDTF proposal America's ground forces would remain as large as Russia's and twice as large as those of the UK, France, and Germany combined.

ARMY REDUCTIONS AND RESTRUCTURING SAVINGS: \$160 BILLION OVER TEN YEARS²¹⁸

U.S. Army reductions would include six of 31 planned active-component brigade combat teams, five of 27 planned reserve component brigade teams, and two of 11 planned active-component Combat Aviation Brigades. Matching this would be a more modest reduction in combat support, combat service support, and infrastructure personnel.

All told, the Army active-component would see a 13% reduction in planned end strength, from 488,000 to 426,000. The Army reserve components would decline by 42,000, from a combined strength of 520,000 to 478,500, an 8.6% reduction. Total savings over ten years would be approximately \$156.9 billion. Of this, approximately \$26.8 billion would be due to reduced modernization costs, as planned equipment acquisitions, upgrades, and improvements are partially scaled back. These changes could be implemented over a period of years to limit the hardship on military personnel separating from service.

MARINE CORPS REDUCTIONS AND RESTRUCTURING¹¹⁹ SAVINGS: \$60 BILLION OVER TEN YEARS

Reductions would encompass six of 24 planned active-component infantry battalions along with a proportionate slice of other combat and support units, as well as combat aviation assets that would combine with these infantry battalions to form Marine Expeditionary Units. All told, the U.S. Marine Corps would see a 15.6% reduction in planned end strength from 186,000 to 157,000 troops, and see its aircraft inventory reduced from 270 to 240, including reduced reliance on the much maligned V-22 Osprey.¹²⁰

Total savings over ten years would be approximately \$60 billion. Of this, approximately \$13.6 billion would be due to cuts in major modernization programs. Another \$3.3 billion would be saved by cuts to other procurement programs commensurate with the reduction in tactical units. Just as with the Army, these changes could be implemented over a period of years to limit the hardship on military personnel separating from service.

U.S. NAVY PERSONNEL AND WEAPONS PROCUREMENT REDUCTIONS SAVINGS: \$193 BILLION OVER TEN YEARS

The proposed restructuring of the U.S. Navy would achieve \$193 billion in savings over the next ten years as measured against the currently projected ten-year Navy budget (which is set to exceed \$2.1 trillion). Central to the proposal would be a reduced emphasis on maintaining a large-scale rotational presence overseas. The SDTF option would instead place greater emphasis on capacities to surge power as needed. This would enable a rollback in the battle fleet from its current size (~297 ships) to 264 vessels, contrasting with the Navy's goal of building up to a 325-ship fleet by 2028.¹²¹

Today, between 90 and 100 Navy ships are often deployed at any one time.¹²² This fact figures prominently in arguments for a much larger fleet. Commensurate with a shift toward a surge strategy, the smaller fleet could comfortably sustain between 65 and 75 ships routinely deployed. A greater proportion of those deployed would be Small Surface Combatants, thus reducing operations and support costs. However, the Navy should end production of the troubled Littoral Combat Ship (LCS) as soon as possible, and avoid developing a larger-version LCS to serve as a frigate, turning instead to existing, reliable frigate designs to serve as Small Surface Combatants.¹²³

Resizing the fleet would occur through a process of "build-down" whereby new ships will be acquired but at a rate slower than the pace of retiring older members of the fleet. Older ships will be retired first, resulting in a significant reduction in the fleet's average age. While existing plans are to retire 83 vessels over the next ten years and procure 101 new ones, our alternative approach would retire 97 vessels while adding 60 new ones.

The option also involves a reduction from 11 planned aircraft carriers to nine. Along with

this would be a reduction from nine carrier air wings to eight, reducing the demand for additional F-35C and F/A-18EF combat aircraft, E-2D Hawkeye early-warning aircraft, and Osprey MV-22B variants (operating in the capacity of Carrier Onboard Delivery aircraft).

All told, the SDTF alternative would make the following changes to the U.S. Navy weapons portfolio:

- ☒ Reduce combat aircraft from ~450 to 400
- ☒ Reduce and cap the battle fleet at 264 by making the following changes:
 - Carriers: Reduce from 11 to 9
 - SSBN: Reduce from 14 to 9
 - Attack subs: Increase from 52 to 62
 - Surface combatants: Reduce from 123 to 108 (72 large and 36 small surface combatants)
 - Amphibious ships: Reduce from 33 to 24 (including landing docks)
 - Command, Logistics, and other Support ships: Reduce from 62 to 59.

Procurement savings due to the reduction in fleet size and retirement of one air wing would be approximately \$84.45 billion over ten years. Another \$18.7 billion would be saved by cuts to other Navy procurement programs commensurate with the reduction in tactical units. Reducing the fleet size will also enable the reduction of 36,000 personnel. The new USN end strength would be 299,000. Overall, operations and support savings for the decade would be \$74 billion. Finally, another \$16 billion is saved due to reductions in other procurement, research and development, construction, and family housing accounts commensurate with the rollback in force structure.

Although smaller, the proposed fleet would host proportionately more air power and attack submarines. Moreover, the cruise-missile and other land-attack capabilities of Virginia-class boats purchased after 2020 will be greatly enhanced by the addition of new payload modules (which add new large-diameter launch tubes).

U.S. AIR FORCE PERSONNEL AND AIRCRAFT PROCUREMENT REDUCTIONS SAVINGS: \$100.5 BILLION OVER TEN YEARS

Former Secretary of the Air Force Heather Wilson exemplified the current trend toward force expansion with her enthusiastic September 2018 pitch for 74 more squadrons (including seven fighter squadrons) and 40,000 more USAF personnel.¹²⁴ None of this is needed. A sober appraisal of threats and the adoption of a practicable set of roles, missions, and goals allows a cut in force size and end strength.

The SDTF alternative involves two key savings. First, reducing the primary mission aircraft inventory to approximately 1,050 air force fighter and attack aircraft. While the Air Force often touts the need for 1,200 aircraft, looking back on the 2003 Iraq war shows that the initial conventional phase of that conflict was fought and quickly won with a deployment of only 293 Air Force fighters, as well as 51 bombers and 362 USN and USMC combat air-

craft.¹²⁵ Even with a 1,050 inventory, the USAF could support 600 combat aircraft overseas at any one time, twice the Iraq standard. This reduction would amount to six U.S. fighter squadron equivalents. For our purposes, these squadrons comprise 108 primary mission aircraft in aggregate, and these are matched by another 62 aircraft that normally serve in other, non-combat roles. Thus, the total recommended reduction is approximately 170 aircraft. By reducing the demand for F-35A fighters, this rollback will save \$15.5 billion in acquisition expenditures over ten years. The six squadron reduction will also save \$31 billion in Operations and Support spending over the decade, partly by enabling a reduction in Air Force end strength of 15,000 personnel.

Second, the SDTF alternative would cancel the Long-range Strike Bomber (B-21) program and redirect a portion of its estimated cost. A high-cost penetrating bomber is not essential to the security of the United States. Its pursuit reflects not only threat inflation, but strategic misdirection. Moreover, the operational concept - attacking deep, well-defended targets by means of high-value piloted assets - seems anachronistic. It is certainly unproven against contemporary peer opponents. The most sensible way to hedge against critical deep threats and insure this mission generally is to invest in other less expensive stand-off means, including UAVs and so-called arsenal planes (which may entail extending the life of existing bombers). In this light, we propose cutting the program back by \$30 billion during the 2019-2028 period, and redirecting the remaining \$18 billion to research and acquisition of less expensive alternatives.¹²⁶

The aggregate effect of the proposal will be a reduction in USAF end strength of 15,000 personnel, which equals approximately a cut of 4.5%. The total ten-year budget savings would be approximately \$100.5 billion.

ROUTINE PEACETIME TROOP DEPLOYMENTS OVERSEAS SAVINGS: \$17 BILLION OVER TEN YEARS

The SDTF alternative posture disputes the current policy that a large routine U.S. presence in Europe and Asia are necessary to protect American influence. In fact, we argue that this seemingly "everywhere, all the time" approach exacerbates the risks of inadvertent military confrontations.

The SDTF stance would reduce routine U.S. presence in Europe to 35,000 personnel over the decade. Our Asia presence would be scaled back to 50,000. And fewer than 25,000 troops (including those afloat) would remain in other areas. All told, U.S. troop presence abroad would comprise 110,000 troops - down from a routine presence of about 180,000.¹²⁷ Given gradual implementation over a five year period, total savings for the decade would be approximately \$17 billion, which could be invested in improving capacities for rapid strategic deployment.¹²⁸

Under present conditions deterrence does not heavily depend as it once did on very large-scale, permanent stationing or rotational presence of U.S. troops abroad. Reasons for this vary from region to region. In Europe and on the Korean peninsula, U.S. allies

have the capacity to counter-balance current and potential adversaries. American troops currently add a distinct edge to this, but one whose immediate tactical value can be supplanted by local forces over time, given sufficient motivation.

More generally, regarding big power competition, there are no intense territorial lines of confrontation that hinge on local force balances. Nor do any areas of contention figure as part of a broader existential contest. Instead, to the degree that big-power competition is military in character, deterrence depends mostly on the prospect of severe punishment, disruption, and destabilization in the case of a major clash.

Weighing against large-scale permanent military presence abroad are more than issues of cost and stress on America's armed forces. Presence also carries the risk of inadvertent involvement in local conflicts and it exposes U.S. forces to attack. Additionally, it can stir local resentment and contribute to impressions of U.S. imperialism. Finally, large-scale presence is not always beneficial for alliance relationships. It can encourage free-riding, subject America to moral hazard, and convey an impression of local weakness and dependency, rather than strength. There is nothing more reassuring than a strong local commitment to self-defense.

END AMERICA'S ENDLESS WARS SAVINGS: \$320 BILLION OVER TEN YEARS

In addition to routine overseas presence, we count another 60,000 U.S. troops currently deployed in support of America's present wars. The Pentagon should end these endless wars, as the President has suggested. With the absence of a roadmap by the Administration for doing this, the SDTF alternative calls for ending the wars and limiting U.S. presence to a small train and assist role only until local security forces learn to defend their own countries.

The President's recent ten-year budget provides for \$420 billion in the Overseas Contingency Operations (OCO) account. This slush fund, unchained to BCA spending caps, replete with wasteful spending, and abused to fund Pentagon programs that have nothing to do with war, should be eliminated. It's long past time we stopped asking American taxpayers to foot the bill for other countries military defense. Ending America's seemingly endless wars now, but still allowing for some spending to safely return U.S. forces home and for a small, short-lived, train and assist role, would allow for at least a \$320 billion reduction in the ten-year budget.

OVERHEAD AND EFFICIENCIES

Every two years, the Congressional Budget Office (CBO) publishes a compendium of savings from changes in the size of the force, modernization, military benefits, and over-

head/efficiencies. This section includes just a few of the many options provided by CBO last year, along with several others developed by task force members.¹²⁹ Other recommendations not listed here, but contained in CBO's analysis, include reducing the salary and benefits of military personnel to be more comparable with those of civilians and by consolidating support activities across services. The listing here, then, is a conservative estimate of all the possible overhead and efficiency savings that could be found at the Pentagon.

REDUCE OPERATIONS AND MAINTENANCE SPENDING BY REDUCING SERVICE CONTRACTING

SAVINGS: \$262.5 BILLION OVER TEN YEARS

According to the CBO, O&M spending grew by 45% in real terms from 2000 to 2018 at the same time that the size of the U.S. military decreased by 4%. The largest savings in the O&M budget would come from reducing civilian personnel and service contractors.¹³⁰ Another area of significant savings would be reduced fuel use – the Pentagon is the largest institutional user of fossil fuels in the world (see appendix on Pentagon fuel use and climate change).

For purposes of calculating savings, this section looks only at the savings yielded by reducing service contractors, and not replacing them with military or civilian personnel. Accounting for other areas where O&M savings could be reduced would yield a larger figure.

While many think of acquisition at the Pentagon in terms of hardware and goods, the Department of Defense spends roughly the same amount on services. Services encompass everything from professional and management support to providing intelligence analysis. In FY2018, the Department spent \$175 billion in service contracting.¹³¹ This is a marked increase even from 2000, when the Department spent approximately \$73 billion on service contracts.¹³² High levels of spending and the insufficient analysis that goes into decisions to outsource this work makes it an area ripe for reform and savings.¹³³ Our recommendation is to move the Department just a fraction of the way towards reducing its overreliance on service contractors by spending 15% less on them, which would save approximately \$262.5 billion over ten years.¹³⁴

Excessive spending and waste at the Pentagon involves not only overpriced aircraft, ships, and spare parts, but also private companies charging the Department for 100-hour workdays.¹³⁵ Proponents of service contracting routinely assert that outsourcing work will save money. Yet, numerous analyses have found that hiring private contractors to perform this work frequently results in increased costs, even without being compounded by issues like fraud.

The Pentagon's cost assessment office and the Project On Government Oversight have also found that contractor employees were most costly, sometimes costing two to three

times more than a federal employee performing the same work.¹³⁶ The Defense Business Board also identified contracted services as an area in which to significantly reduce costs.¹³⁷

When it comes to major weapon programs, contractors seeking to profit from sustainment and support contracts frequently deliver overly complex and fragile weapons. Former DOD Comptroller Robert Hale estimated operating and support costs make up about two-thirds of the defense budget.¹³⁸ The DOD's Future Years Defense Program estimates that supporting just the software of weapon systems will cost \$15 billion over the next five years, though Congressional auditors also raised concerns that the Department may not know the full costs of these systems.¹³⁹ While contractors benefit from these arrangements, our military suffers as the costs of reliability and maintainability increase.¹⁴⁰

Reducing the Department's reliance on contractors to only those roles where they are most cost-effective would increase both savings and effectiveness.

REPLACE SOME MILITARY PERSONNEL WITH CIVILIAN EMPLOYEES SAVINGS: \$16.7 BILLION OVER TEN YEARS

This proposal would decrease the DOD's budget by replacing 80,000 active-duty military personnel in commercial-support functions with 64,000 civilian personnel over a four-year time period.

Replacing military personnel with civilians in commercial-support positions would provide ample savings and save time. As civilian jobs do not require as much training or require regular transfers, the DOD is able to use fewer civilians to deliver an equal quality and quantity of work. Military members receive higher benefits, and therefore replacing them with fewer civilians will create savings.¹⁴¹

CLOSE UNNECESSARY MILITARY BASES SAVINGS: \$20 BILLION OVER TEN YEARS

The Pentagon estimates that its domestic infrastructure is nearly one-quarter larger than needed.¹⁴² For several years the Department has asked Congress to authorize another Base Realignment and Closure (BRAC) round. Previous BRAC rounds saved a combined \$13.6 billion per year, and another round could save an additional \$2 billion per year.

NUCLEAR WEAPONS, MISSILE DEFENSE, AND SPACE

The nuclear weapons options outlined below are consistent with the “deterrence-only” approach proposed by Global Zero (see sidebar, above, for further details). As indicated, some of these nuclear cuts can be achieved with a less substantial shift in nuclear strategy.

In addition, the cancellation of the Ground-Based Missile Defense System and the Trump administration’s proposed Space Force make sense with or without a shift in U.S. defense strategy.

ELIMINATE THE NEW NUCLEAR CRUISE MISSILE SAVINGS: \$13.3 BILLION OVER TEN YEARS

The new nuclear-armed, air-launched cruise missile, known formally as the Long-Range Standoff Weapon (LRSO), is redundant even under current nuclear policy, and would have no role to play in a deterrence-only strategy. Current U.S. systems can penetrate Russian or Chinese radar in the unlikely event of a nuclear conflict. More importantly, the size and shape of the overall U.S. nuclear arsenal is more than enough to deter any nation from attacking the United States with nuclear weapons. This option represents savings from cancelling the missile system itself. The nuclear warhead planned for deployment on the nuclear cruise missile will be discussed below, alongside the nuclear warhead complex.

As Rep. Adam Smith (D-WA) and Sen. Dianne Feinstein (D-CA) have noted, “the LRSO creates unnecessary risks of miscalculation in a conflict, lowers the threshold for nuclear use, is not necessary to preserve nuclear deterrence, and will draw scarce resources away from other nuclear assets and advanced conventional capabilities.”¹⁴³

CANCEL THE NEW INTERCONTINENTAL BALLISTIC MISSILE (ICBM) SAVINGS: \$30 BILLION OVER TEN YEARS

The deterrence-only strategy eliminates the ICBM leg of the nuclear triad on the grounds that it is vulnerable, dangerous, and unnecessary.

The ICBM is dangerous because the President would have to decide whether to launch ICBMs within minutes in a crisis to avoid potentially losing them in an attack, which increases the risk of a rash, accidental or misguided resort to nuclear weapons. For this reason, former Secretary of Defense William Perry has described the ICBM as the most dangerous weapon in the U.S. arsenal.¹⁴⁴ Eliminating ICBMs makes sense even without a full revamping of U.S. strategy along the lines proposed by Global Zero.

CANCEL PLANS FOR A NEW "SPACE FORCE" SAVINGS: \$10 BILLION OVER TEN YEARS

The Trump administration's plan to create a new Space Force – which the president has described as a "sixth armed service" -- would create a new bureaucracy and further militarize the U.S. approach to space. As former Secretary of Defense James Mattis put it with respect to an earlier iteration of the plan, "[a]t a time when we are trying to integrate the Department's joint warfighting functions, I do not wish to add a separate service that would likely present a narrower and even parochial approach to space operations."¹⁴⁵ House Armed Services Committee Chairman Rep. Adam Smith (D-WA) concurs: "It's too expensive and creates more bureaucracy. We don't want to just, you know, create more people. We want to figure out how to better emphasize space."¹⁴⁶

While the administration is starting slowly – \$306 million to establish a headquarters, a Space Command, and a new Space Development Agency – a full-blown Space Force could cost billions or tens of billions over the next decade. A recent report by the CBO estimates that establishing a new military service for space activities would result in \$1.4 billion to \$3.2 billion in startup costs and \$1.1 billion to \$1.5 billion per year in increased annual costs. Assuming that the additional annual costs would not kick in until the force is fully set up, the low end of the CBO estimate comes in at \$10.2 billion over the next decade.¹⁴⁷

A Space Force is unnecessary. With better coordination, existing bureaucracies within the Air Force and Army charged with developing space assets are more than adequate.

CANCEL RESEARCH AND DEVELOPMENT ON SPACE-BASED WEAPONS SAVINGS: AT LEAST \$3 BILLION OVER TEN YEARS

Pentagon officials have revealed plans to fund research and development leading towards the possible testing of space-based lasers and/or particle beam weapons by 2023. The weapons would be designed to destroy enemy ballistic missiles in their boost phase. The FY2020 budget contains over \$300 million to explore these options. Actually building and deploying such weapons would likely cost tens of billions more. Given that there is no proof yet that either technology could actually work, any estimate of future costs is speculative at best, but even if the budget stabilized at \$300 million per year, taxpayers could save \$3 billion over the decade if funding for space-based weapons were stopped now.

Placing weapons in space, or even announcing an interest in doing so, runs the risk of sparking an arms race in space, as well as potentially stimulating rivals to increase and improve their nuclear arsenals in order to overcome any capabilities the new anti-missile systems may have.

Kingston Reif of the Arms Control Association has given a succinct summary of the reasons not to deploy weapons in space:

“The deployment of interceptors in space would be a disaster for strategic stability. To ensure the credibility of their nuclear deterrents, Russia and China would likely respond by building additional and new types of long-range ballistic missiles as well as missiles that fly on non-ballistic trajectories. Russia and China could also take steps to improve their ability to destroy such U.S. interceptors, thereby greatly increasing the threat to U.S. assets in space.”¹⁴⁸

CANCEL GROUND-BASED MIDCOURSE DEFENSE SYSTEM (GMD) SAVINGS: \$20 BILLION OVER TEN YEARS

As its name indicates, the GMD is a land-based missile defense system that is currently deployed in Alaska and Southern California. It has failed half of its tests, and none of those tests have been conducted under realistic conditions. Rather than throwing more money at building a system that will not work as planned, the United States can depend on its nuclear deterrent – any country that attacks the United States with a nuclear weapon would risk a devastating retaliation that would destroy its society. Continued research on missile defense may be warranted, but deploying a system that does not work is a waste of time and effort that siphons funds from meeting more pressing needs.¹⁴⁹

CANCEL NEW NUCLEAR WARHEADS AND ROLL BACK MODERNIZATION OF THE NUCLEAR WEAPONS COMPLEX SAVINGS: \$15 BILLION OVER TEN YEARS

A smaller nuclear arsenal would require fewer nuclear warheads, and fewer critical components for maintaining the capability of warheads still deployed. Under a deterrence only strategy, total warheads in the U.S. nuclear arsenal would be reduced by roughly 75%, reducing costs for maintaining the stockpile considerably.

Producing fewer plutonium “pits” – a key component of all current nuclear warheads – could save a minimum of \$9 billion over the next ten years. Abandoning several new warhead development production and upgrade projects would save billions more.¹⁵⁰ The \$14 billion estimate for reduced costs of stockpile maintenance, reduced production of plutonium “pits,” and cancellation of new warhead designs is conservative.¹⁵¹

Most importantly, the plan to build a “low yield” nuclear warhead for use on Submarine-Launched Ballistic Missiles (SLBMs) should be abandoned. While savings would be relatively modest – perhaps a few hundred million dollars – the security benefits of forgoing this option would be significant. Sixteen members of the U.S. Senate have rightly

described the development of “more usable low-yield nuclear weapons” as unnecessary and destabilizing.¹⁵²

INCLUDE THE NUCLEAR WEAPONS COMPLEX IN THE NEXT BASE REALIGNMENT AND CLOSURE (BRAC) ROUND SAVINGS: \$10 BILLION OVER TEN YEARS

For several years the Pentagon has asked Congress to authorize another Base Realignment and Closure (BRAC) round. Previous BRAC rounds saved a combined \$13.6 billion per year, and another round could save an additional \$2 billion per year, as noted earlier.¹⁵³

Savings from consolidating defense facilities would be even greater if the next BRAC round encompassed the nuclear weapons complex, which includes nine sites.¹⁵⁴ The combined annual operating budget of nuclear weapons complex facilities is about \$13 billion.¹⁵⁵ Consolidating the dangerous nuclear materials these labs use for research and weapons production would reduce costs while significantly increasing security.

Removing nuclear material from just two facilities would save approximately \$80 million per year. A removal allowing for the closure of even a single lab would save at least \$1 billion annually.

While the public may think these labs are government agencies, they are actually managed and operated by contractors and overseen by the Department of Energy. In many ways they are even more wasteful and ineffective than traditional Pentagon contractors. Lab waste has spurred criticisms and longstanding advice to reduce unnecessary infrastructure. An Energy Department Task Force found “excess capacity in areas associated with nuclear weapons design and development,” and that political concerns prevented needed downsizing and restructuring.¹⁵⁶ When the Department of Energy initially considered consolidating management and operating contracts for some of the labs, savings were estimated at nearly \$900 million over 10 years.¹⁵⁷ Several studies also found nuclear labs were more expensive than they should be. A Stimson Center study found the labs cost “an average of two to three times more than private industry.”¹⁵⁸ Furthermore, the JASON Science and Technology Advisory Panel found these labs were more expensive than government or private labs.¹⁵⁹

A subsequent expert review echoed concerns about duplicate facilities. “The three design laboratories, consumers of approximately 2/3 of the nuclear weapons budget, routinely compete with each other and set their own requirements as justification for new facilities and redundant research funding in the fear that one laboratory may become superior,” the review said. “The net result is that the Complex sites are competing for programmatic funds and priorities rather than relying upon their divergent and complementary strengths.” The group recommended that a single laboratory be responsible for leadership and management of these materials.¹⁶⁰ Five recent weapons projects overseen by

the labs cost nearly eight times more than initial estimates, with a combined \$28 billion in cost overruns.¹⁶¹

Removing dangerous nuclear materials from just one of the Department of Energy's national laboratories—Lawrence Livermore—saved taxpayers approximately \$40 million per year.¹⁶² Consolidation would also reduce maintenance costs, reduce the number of potential terrorist targets, and decrease security vulnerabilities.¹⁶³ Most notably, consolidation would significantly reduce the need to transport nuclear components from one end of the country to the other, which is almost always done on public highways. When the Department of Energy's Office of Inspector General recommended consolidation, it also found there could be significant cost savings through reducing the force necessary to protect these materials, minimizing administrative costs, and simplifying acquisition oversight.¹⁶⁴

APPENDIX A: THE PENTAGON, FUEL USE, CLIMATE CHANGE, AND THE COSTS OF WAR¹⁶⁵

The Pentagon holds two contradictory positions. On one hand, it has acknowledged that climate change poses a major national security challenge. On the other, the Pentagon is the largest single consumer of petroleum in the world – consumption used in part to defend access to petroleum. They therefore produce the very same greenhouse gases that will make the threats posed by climate change much worse until we act to reduce our petroleum consumption. Indeed, the Department of Defense (DOD) is the world's largest institutional user of petroleum and correspondingly, the single largest producer of greenhouse gases (GHG) in the world.¹⁶⁶ These greenhouse gases, combined with other U.S. emissions, will help guarantee that the nightmare scenarios that the military predicts and that many climate scientists say are possible come to fruition.

U.S. military greenhouse gas emissions, from 2001 through 2017 have been approximately 1,212 million metric tons of CO₂ equivalent. Of those emissions, 766 million metric tons of CO₂ equivalent were emitted in “non-standard” military operations, including overseas contingency operations in the major war zones of Afghanistan and Pakistan, and Iraq and Syria.¹⁶⁷ Another consequence of the mission to protect oil and to hedge against climate-induced conflict is a larger U.S. military.

Reductions in military fuel use would be beneficial in four ways. First, the U.S. military would reduce its greenhouse gas emissions. Second, if the Pentagon reduced the use of greenhouse gas emitting fuels, associated climate change threats to national security would be lessened. Third, the United States would reap political and security benefits, by reducing domestic and U.S. military dependence on oil and those who provide it, including reduced troop dependence in the field. Finally, if the United States dramatically reduced its imports of oil from the Persian Gulf, including fuel used to protect those imports, it could then reevaluate the size of the U.S. military presence in the region and the overall size of the military. As a consequence of spending less money on fuel and operations to provide secure access to petroleum, the United States could, in the long run decrease total U.S. military spending and the size of the military, and reorient its economy to other more economically productive activities.

The U.S. economy and the military are dependent on petroleum. The substantial U.S. military presence in the Persian Gulf and the larger Middle East is meant in part to ensure access to Persian Gulf oil – along with the ongoing fight against terrorism and concerns about the regional ambitions of Iran. The United States also supports friendly oil rich regimes with military force, foreign aid, and arms sales.

The U.S. military seems blissfully unaware of how much its efforts to protect access to Persian Gulf Oil, its other military operations including war, and consumption at installations are a major driver of greenhouse gas emissions, and ultimately of climate change. In sum, the DOD assumes that climate change will be a disaster no matter what they do, even as they believe that they must continue to protect access to Persian Gulf oil so that

the United States and the rest of the world can burn as much oil as it wants at the lowest price per barrel possible. Therefore, the Pentagon focuses their efforts on adapting to climate change, even as they continue to ensure that we can rely on relatively inexpensive access to imported oil. However, if it chose to do so the Pentagon could play a major role in reducing the worst effects of climate change, not just prepare to deal with its consequences.

A better strategy is available. The U.S. military could reduce its consumption of petroleum, including that portion of military operations used to ensure access to Persian Gulf petroleum. If the U.S. military and the overall U.S. economy were to decrease its dependence on oil, the United States could reduce the political and fuel resources it uses to defend access to oil. The U.S. economy has already reduced overall petroleum consumption and so has the military. Further cuts in military petroleum consumption are possible.

The concern about access to oil is twofold. The United States economy is obviously heavily reliant on oil. The military has defended against several scenarios regarding a cut-off of Persian Gulf Oil. The first scenario is the threat that a hostile power would gain control of oil in the Persian Gulf — for instance by occupying Saudi Arabia and Kuwait or by blocking the Strait of Hormuz — and be able to control world supply and increase the price of oil. In response to the first scenario, the United States created the Strategic Petroleum Reserve in 1975 and the Rapid Deployment force in 1980 (which became Central Command in 1983). This mission officially began in late 1979 with the creation of the Rapid Deployment Force whose specific mission was to defend U.S. interests in the Middle East, including oil. In January 1983, when U.S. commands were reorganized, the RDF became U.S. Central Command (CENTCOM).

When Iraq invaded Kuwait in 1990, the Bush Administration reiterated the importance of oil in the region in National Security Directive 45. “U.S. interests in the Persian Gulf are vital to the national security. These interests include access to oil and the security and stability of key friendly states in the region. The United States will defend its vital interests in the area, through the use of U.S. military force if necessary and appropriate, against any power with interests inimical to our own.”¹⁶⁸ In 1991, the United States evicted Iraq from Kuwait because it feared that Iraq posed a threat to Saudi Arabia.

Since then, the United States has stationed large numbers of troops in the Persian Gulf at Army, Navy, and Air Force bases. In late 2008, President George W. Bush added a concern that extremists might control oil and try to blackmail the United States: “[Y]ou can imagine them saying, ‘We’re going to pull a bunch of oil off the market to run your price of oil up unless you do the following’. And the following would be along the lines of, well, ‘Retreat and let us continue to expand our dark vision.’”¹⁶⁹

While the idea that the United States must protect the global flow of oil, and more specifically oil from the Persian Gulf, has largely been taken for granted, it is no longer clear that a large presence in the Persian Gulf region, and the infrastructure in Europe that supports it, is necessary.¹⁷⁰ The Persian Gulf mission may not be as vital as the Pentagon assumes.

The military and intelligence community tend to cluster the national security implications of global warming induced climate change into three overlapping areas: how climate change will affect U.S. bases and military operations; how climate disasters will stress military operations; and how climate change poses political and national security threats, up to and including war.¹⁷¹

The military has emphasized how climate change challenges military systems, operations, and infrastructure, and in 2014 offered a “Climate Change Adaptation Roadmap” that stressed the necessity of preparing for and adapting to climate change.¹⁷² A 2019 DOD report on issues arising from climate change highlights the fact that the U.S. military already experiences the effects of global warming at dozens of installations.¹⁷³ These include recurrent flooding (53 installations); drought (43 installations); wildfires (36 installations); and desertification (6 installations). The report states that vulnerability will only increase over the next twenty years.¹⁷⁴

The most urgent threat to infrastructure has perhaps been the Navy’s on-going concern that rising sea levels and major storms will inundate coastal infrastructure and limit the use of naval bases.¹⁷⁵ For instance, Norfolk Naval Base is sinking and Keesler Air Force Base regularly floods. This does not even address long-term threats, like the fact that an open Arctic Sea may lead to questions about the need to patrol it.¹⁷⁶

The Pentagon’s response to the infrastructural and operational challenges of climate change has been to urge military preparations — such as moving military bases, developing training and equipment to operate in hotter, wetter or drier climates — to meet climate change related threats to operations and resiliency.

National security officials, anticipating a growing role supporting civil authorities in disaster relief missions, are also concerned that natural disasters, made worse as a consequence of climate change, will stress the operational capacities of the U.S. military. As sea levels rise, critical civilian infrastructure will be at risk. In September 2016, President Obama issued a National Security Memorandum that said, “[c]limate change and associated impacts on U.S. military and other national security-related missions and operations could adversely affect readiness, negatively affect military facilities and training, increase demands for Federal support to non-federal civil authorities, and increase response.”¹⁷⁷

Finally, the military is concerned that climate change will lead to a more chaotic and dangerous world. The fact that the Arctic Ocean will now be open poses a risk to U.S. facilities there. National security analysts now frequently suggest that drought in Syria from 2007 to 2010 and the subsequent mass migration to the cities created the conditions that contributed to the emergence of their civil war in 2011.

Indeed, strategists paint nightmare scenarios where climate change leads to armed conflict such as when crop failures and drought lead to conflicts over water and other natural resources. The White House said in 2016 that “[t]he national security implications of climate change impacts are far-reaching, as they may exacerbate existing stressors, contributing to poverty, environmental degradation, and political instability, providing enabling environments for terrorist activity abroad. For example, the impacts of climate change on

key economic sectors, such as agriculture and water, can have profound effects on food security, posing threats to overall stability.”¹⁷⁸ Similarly, in September 2016, the National Intelligence Council listed a range of concerns from increased migration, to food shortages, to greater conflict and war caused by shortages of fresh water and access to arable land.¹⁷⁹

The Pentagon does use other fuels. The U.S. military relies on nuclear power for some important tasks — most notably to power its fleet of 11 aircraft carriers. While the Pentagon has increased their use of renewable energy since 2009, so far, the savings in emissions offsets less than 1% of DOD Greenhouse Gas consumption.¹⁸⁰ It is possible to substitute some alternative fuels for military applications. There is even research on using bio-fuel in military vehicles, including jets. Many efforts to reduce the energy used at military installations, and to educate soldiers about the need to minimize idling vehicles — from Humvees to tanks, to jets — already exist. All of this could be accelerated to not only save money but also increase the resilience of the armed forces.¹⁸¹ Still, the largest reductions in both budgets and greenhouse gas emissions would come from decreasing the overall size of the military and its operations to defend access to oil.

APPENDIX B: METHODOLOGY FOR ESTIMATING PERSONNEL AND SPENDING REDUCTIONS

OPERATIONS AND SUPPORT SAVINGS

The calculation of Operation and Support savings is based on CBO's *The US Military's Force Structure: a Primer*,¹⁸² which divides all Defense Department spending and personnel into three categories: Combat, Support, and Infrastructure (or Administrative). The CBO report proportionately associates costs and personnel in every category with combat units. This suggests how reductions in combat units might reverberate throughout DOD structures, affecting personnel rosters and costs in each category. Of course, while cuts in combat units would be closely correlated with reductions in combat unit personnel and O&S costs, these would not automatically result in proportionate reductions in support and infrastructure units and offices.

While accepting CBO's association of all support and infrastructure personnel and expenditures with combat units, we assume more modest reductions in the support and infrastructure categories as the number of combat units decline. We assume a 60% correlation between support and combat reductions, and a 33.3% correlation between infrastructure and combat reductions. Also notably, the Sustainable Defense Task Force (SDTF) calculation of O&S savings adjusts CBO's estimates to account for estimated inflation throughout the 2017-2029 period, using DOD deflators.

MODERNIZATION SAVINGS

Major modernization programs are rolled back in accord with reduced demand due to retirement of combat units. Again, CBO's *Primer* serves as a basis for estimating the equipment holdings of tactical units. This information was supplemented by data from Service manuals and publications.¹⁸³ Cost estimates for reduced equipment were based principally on various Selected Acquisition Reports, congressional research agency reports, annual DOD program acquisition reports, and nongovernmental research institutions.¹⁸⁴

Other procurement expenditures are reduced proportionately to the percentage reduction in combat, support, and/or transportation units. For instance, planned expenditures on some types of ammunition, missiles, and aviation support equipment are reduced in accord with reductions in relevant aviation assets - such as combat helicopters or fixed-wing combat aircraft. However, some areas of procurement are not reduced at all, notably purchases supporting Chemical Agents & Munitions Destruction. Also largely spared from cuts are purchases of communications and electronics equipment, which cannot be easily linked to the number of reduced combat assets.

Proposed cuts in Research, Development, Test, and Evaluation funding mostly relate to the B-21 bomber, Minuteman modernization, and Ground Based Strategic Deterrent

programs - all of which are discontinued. Apart from these specific cuts, the alternative would aim to reorient R&D toward more practical, cost-effective ends. While the Trump administration is supporting a qualitative leap in R&D spending, the SDTF force structure alternative sees no necessity to exceed \$85 billion (2020 USD) in annual spending, adjusted for inflation. This level equals or exceeds most R&D spending over the past 35 years. It also implies a \$52 billion reduction in 10 year R&D spending, including the reductions in the programs mentioned above.

OTHER SAVINGS

Proposed family housing expenditures are reduced proportionately to the reduction in personnel end-strength. Funding for military construction overseas is reduced proportionately to the reduction in overseas presence. Military construction expenditures at home are rolled-back proportionately to the percentage cut in force structure - averaging about 10% across services. Funding related to Base Realignment and Closure is untouched. All told, funding for military construction is reduced by 22%.

APPENDIX C: SDTF MEMBER BIOS

Amy Belasco is a former Defense budget and policy specialist at the Congressional Research Service. Before that, she sampled other budget nerd havens, including the the Simpson-Bowles National Commission on Fiscal Responsibility and Reform as head of the defense team, the Congressional Budget Office, the Office of Management and Budget, and the General Accountability Office. From this experience, she's convinced that honest numbers matter because they tell a story that's hard to deny.

Gordon Adams is a professor emeritus of international relations at American University's School of International Service and is a distinguished fellow at the Stimson Center. From 1993 to 1997, he was the senior White House budget official for national security.

Carl Conetta is the director of the Project on Defense Alternatives (PDA) and a Senior Fellow at the Center for International Policy. His work has been published in The Washington Post, The Boston Globe, Defense News, and many other media outlets. Mr. Conetta has also made presentations at the Pentagon, US State Department, US House Armed Services Committee, Army War College, National Defense University, UNIDIR, and other governmental and nongovernmental institutions in the United States and abroad. He is a frequent expert commentator on radio and TV.

Neta Crawford is a Professor and Chair of the Department Political Science at Boston University and a Co-Director of the Costs of War Project based at Brown University.

Matt Fay is the former Director of Defense and Foreign Policy Studies at the Niskanen Center, and is currently pursuing a Ph.D. at George Mason University.

Benjamin Freeman, Ph.D., is the Director of the Foreign Influence Transparency Initiative at the Center for International Policy, and a Faculty member at the Institute for Defense and Business. His articles have appeared in the New York Times, the Washington Post, the Nation, and in numerous other media outlets. He previously worked at the Project On Government Oversight, where he testified before the Senate Armed Services Committee, and taught in the Political Science Department at Texas A&M University.

Benjamin H. Friedman is Policy Director at Defense Priorities, and an Adjunct Lecturer at George Washington University and the University of Maryland.

William D. Hartung is the director of the Arms and Security Project at the Center for International Policy and a senior adviser to the center's Security Assistance Monitor. He is the author of *Prophets of War: Lockheed Martin and the Making of the Military-Industrial Complex* (Nation Books, 2011) and the co-editor, with Miriam Pemberton, of *Lessons from Iraq: Avoiding the Next War* (Paradigm Press, 2008). articles on security issues have appeared in the New York Times, the Washington Post, the Los Angeles Times, The Nation, and the World Policy Journal. He has been a featured expert on national security issues on CBS 60 Minutes, NBC Nightly News, the PBS Newshour, CNN, and Fox News.

Laicie Heeley is the founder and editor of Inkstick and the host of the PRI and Inkstick-produced podcast, Things that Go Boom. She is also a Partner with the Truman National Security Project.

John King is a retired civilian senior budget analyst who handled over \$60 billion in Pentagon money performing financial due diligence on hundreds of R&D, procurement, operation and maintenance, military personnel, construction and housing, and contingency budget (both war budgets and disaster assistance/humanitarian aid) programs over 35 years. A volunteer on the Simpson-Bowles deficit commission defense budget team who wrote some of the \$100 billion a year in cuts to the defense budget, he also teaches Navy staff on the Planning, Programming, Budgeting and Execution (PPBE) process. He recently started King Brown & Company LLC to advise government and companies how to use private finance to leverage public investment. He lives in Stafford, Virginia.

Lawrence J. Korb is a senior fellow at the Center for American Progress. He is also an adjunct professor at Georgetown University. Prior to joining the Center for American Progress, he was a senior fellow and director of national security studies at the Council on Foreign Relations. From July 1998 to October 2002 he was council vice president, director of studies, and holder of the Maurice Greenberg Chair. Prior to joining the council, Dr. Korb served as director of the Center for Public Policy Education and senior fellow in the Foreign Policy Studies Program at the Brookings Institution; dean of the Graduate School of Public and International Affairs at the University of Pittsburgh; vice president of corporate operations at the Raytheon Company; and director of defense studies at the American Enterprise Institute. Dr. Korb served as assistant secretary of defense (manpower, reserve affairs, installations, and logistics) from 1981 through 1985. In that position, he administered about 70 percent of the defense budget.

Lindsay Koshgarian is the Program Director of the National Priorities Project, where she oversees NationalPriorities.org. Lindsay's work on the federal budget includes analysis of the federal budget process and politics, military spending, and specifically how federal budget choices for different spending priorities and taxation interact. A particular area of focus is how a decades-long policy of outsized military budgets has eroded political will to invest in opportunity and human potential through greater federal support of education, health care, infrastructure and more. Prior to joining NPP in 2014, Lindsay was a researcher at the University of Massachusetts Donahue Institute, where she conducted state and regional economic development studies.

Miriam Pemberton is an Associate Fellow at the Institute for Policy Studies, working on military budget and military economy issues. With Lawrence Korb she led the task force that produced the annual "Unified Security Budget for the United States", as well as a series on military vs. climate security. She is at work on a book about the military economy (Routledge, forthcoming).

Mandy Smithberger is the director of the Center for Defense Information at the Project On Government Oversight (POGO). Previously she was a national security policy adviser to U.S. Rep. Jackie Speier (D-Calif.) and served as an analyst at the Defense Intelligence Agency and U.S. Central Command.

Lawrence Wilkerson is the Distinguished Visiting Professor of Government and Public Policy at the nation's oldest public university, The College of William & Mary in Williamsburg, Virginia, where he has taught for the past fifteen years. Previously, while serving in the US Army for 31 years, he also taught at the Naval War College in Newport, Rhode Island and the Marine Corps War College in Quantico, Virginia. Positions he has held outside teaching include in the military, special assistant to General Colin L. Powell when the General was chairman of the Joint Chiefs of Staff and, in civilian life, chief of staff to Powell when he served as U.S. Secretary of State.

Isaiah "Ike" Wilson III is the director of the Strategic Studies Institute at the Army War College. He is a colonel (retired) in the United States Army and an Army strategist. He served as chief, Commander's Initiatives Group (CIG), at U.S. Central Command from 2013 to 2016, with prior assignments as chief of plans, 101st Airborne Division (Air Assault) in Northern Iraq (2003-2004), as a theater war planner and strategic adviser in Afghanistan, and as professor and director of American politics, policy and strategy with the Department of Social Sciences at West Point. He has served as a visiting professor at George Washington University and a fellow with the New America Foundation.

ENDNOTES

1. This report is a follow-on to a 2010 analysis that outlined how to cut \$1 trillion from projected Pentagon budgets over a ten-year period, as part of the debate that led up to the passage of the Budget Control Act of 2011. See Sustainable Defense Task Force, *Debt, Deficits, and Defense: A Way Forward*, June 11, 2010.
2. On troop levels, see Amy Belasco, *The Cost of Iraq, Afghanistan, and Other Global War on Terror Operations Since 9/11*, Congressional Research Service, December 8, 2014, p. 10.
3. For detailed statistics on historical, current, and projected defense spending see section two of this report.
4. For a detailed analysis of defense spending and the national debt, see part 2 of this report.
5. Nick Turse, "Why Are U.S. Special Operations Forces Deployed in Over 100 Nations?," *The Nation*, January 7, 2014.
6. National Defense Strategy Commission, *Providing for the Common Defense: The Assessment and Recommendations of the National Defense Strategy Commission*, November 2018, Executive Summary, page v.
7. U.S. Department of Defense, "Summary of the 2018 National Defense Strategy: Sharpening the American Military's Competitive Edge," January 2018.
8. National Defense Strategy, op. cit., note 4, p. 4.
9. For example, the \$716 billion allocated for the Pentagon and related activities like nuclear weapons work at the Department of Energy for Fiscal Year 2019 was nearly 14 times \$53 billion allocated for the budget for the State Department and Agency for International Development for that year. On the State Department budget, see "Addendum to the FY 2019 President's Budget to Account for the Bipartisan Budget Act of 2018: Department of State, Foreign Operations, and Related Programs Congressional Budget Justification," February 12, 2018.
10. White House Office of Management and Budget, FY2020 Federal Budget, Historical Tables, Outlays by Function and Subfunction, 1962 to 2024. Ratio of national defense to the State Department is based on FY 2019 budget figures.
11. National Defense Strategy Commission, p. 52.
12. For an analysis of the Pentagon's growing role in areas formerly handled by the State Department and other agencies see Gordon Adams and Shoon Murray, editors, *Mission Creep: The Militarization of U.S. Foreign Policy* (Washington, DC: Georgetown University Press, 2014). For ongoing analysis and data on the Pentagon's role in foreign assistance programs see the Security Assistance Monitor web site, at securityassistance.org.
13. David Vine, "Where in the World Is the U.S. Military?" *Politico Magazine*, July/August 2015; Nick Turse, "Commandos Sans Frontières: The Global Growth of U.S. Special Operations Forces," *TomDispatch*, July 17, 2018.
14. National Defense Strategy Commission, p. vi.
15. Nan Tian, Aude Fleurant, Alexandra Kuimova, Pieter D. Wezeman and Siemon T. Wezeman, "Trends in World Military Expenditure, 2017," *Stockholm International Peace Research Institute*, May 2018, p. 2. Countries covered in the comparison are the United States, France, the United Kingdom, Japan, Germany, South Korea, Italy, Australia, and Canada.
16. Stephen Walt, "The End of Hubris and the New Age of American Restraint," *Foreign Affairs*, May-June 2019, p. 30.
17. Eugene Gholz, "No Man's Sea: Implications for Strategy and Theory," LBJ School of Public Affairs, University of Texas at Austin, February 2017, p. 3.
18. International Monetary Fund, *World Economic Outlook, GDP Dataset*, April 2019. By the IMF's measure, U.S. Gross Domestic Product is \$21.3 trillion, versus \$1.6 trillion for Russia.
19. Dave Majumdar, "Not So Scary: This Is Why Russia's Military is a Paper Tiger," *The National Interest*, October 20, 2015.
20. Stephen Biddle and Ivan Oelrich, "Future Warfare in the Western Pacific," *International Security*, Vol. 41, No. 1 (Summer 2016), p. 10.
21. Michael Beckley, "The Emerging Military Balance in East Asia: How China's Neighbors Can Check Chinese Naval Expansion," *International Security*, Vol. 42, No. 2 (Fall 2017), p. 116.
22. "Military Spending: Russia Vs. NATO," *Radio Free Europe/Radio Liberty*, July 3, 2018.
23. Malcom Scott and Cedric Sam, "Here's How Fast China's Economy is Catching Up with the U.S.," *Bloomberg*, May 12, 2016 (updated May 24, 2018).
24. "China Development Bank Commits \$250 Billion to Belt and Road," *Nikkei Sun*, January 15, 2018. For more details on the Asian Infrastructure Investment Bank see its web site at: <https://www.aiib.org/en/index.html>
25. Jane Perlez, "China Retools Vast Global Building Push Criticized as Bloated and Predatory," *New York Times*, April 25, 2019.
26. Noah Smith, "The Future is in Africa, and China Knows It," *Bloomberg Opinion*, September 20, 2019.

27. Jesse Dillon Savage and Jonathan Caverley, "Training the Man on Horseback: The Connection Between U.S. Training and Military Coups," *War On The Rocks*, August 9, 2017; Jesse Dillon Savage and Jonathan D Caverley, "When human capital threatens the Capitol: Foreign aid in the form of military training and coups," *Journal of Peace Research* (Jul 2017); Lauren Chadwick, Military trainees at defense universities later committed serious human rights abuses (Washington DC: Center for Public Integrity, Jan 18, 2017); Peter Munson, "The Limits of Security Cooperation," *War On The Rocks*, Sep 10, 2013; Patricia L. Sullivan, et. al., "US Military Aid and Recipient State Cooperation," *Foreign Policy Analysis*, Vol. 7, Issue 4 (Oct 2011).
28. See for example, Adam Taylor, "Why Countries Might Want Out of China's Belt and Road," *Washington Post*, August 22, 2018.
29. Michael Beckley, "The Emerging Military Balance in East Asia: How China's Neighbors Can Check Chinese Naval Expansion," *International Security*, Vol. 42, No. 2 (Fall 2017), p. 113.
30. See note 8, above.
31. Barbara Demick, "Escalating Tension Has Experts Simulating a New Korean War, and the Scenarios Are Sobering," *Los Angeles Times*, September 25, 2017; Barry R. Posen, "The Price of War With North Korea," *New York Times*, December 16, 2017; and for an analysis that estimates that a North Korean nuclear attack could kill up to 2.1 million people and injure 7.7 million more, see Michael J. Zagurek, "A Hypothetical Nuclear Attack on Seoul and Tokyo: The Human Cost of War on the Korean Peninsula," 38 *North*, October 4, 2017.
32. William J. Perry, "Why I'm Still Hopeful About Trump's North Korea Deal," *Politico*, July 2, 2018.
33. *Ibid.*
34. For an analysis of the Trump administration's latest counterproductive move, see Trita Parsi, "Trump's Iran Terrorist Designation is Designed to Lock in Endless Enmity," *The Guardian*, April 12, 2019.
35. The quote is from Julian Borger, David Smith, Spencer Ackerman, and Kamali Dehghan, "Trump Administration 'Officially Putting Iran on Notice,' Says Michael Flynn," *The Guardian*, February 2, 2017.
36. Stephanie Savell and SW Infographics, "Where We Fight," Brown University Costs of War Project, January 2019.
37. Neta C. Crawford, "United States Budgetary Costs of the Post-9/11 Wars Through FY 2019: \$5.9 Trillion Spent and Obligated," *Costs of War Project*, Brown University.
38. Figures on troops killed in the conflicts are from the Brown Costs of War Project; and as of 2015, the Congressional Research Service had compiled statistics indicating that over 138,000 veterans of the post-9/11 wars were suffering from PTSD, with over 327,000 suffering from Traumatic Brain Injuries of one level of severity or another. See Hannah Fischer, "A Guide to U.S. Military Casualty Statistics: Operation Freedom's Sentinel, Operation Inherent Resolve, Operation New Dawn, Operation Iraqi Freedom, and Operation Enduring Freedom," *Congressional Research Service*, August 7, 2015.
39. Neta C. Crawford, "Human Costs of the Post-9/11 Wars: Lethality and the Need for Transparency," *Costs of War Project*, Brown University, November 2018.
40. For an assessment of the impacts of global terrorism, see Institute for Economics and Peace, *Global Terrorism Index 2018*, November 2018. The vast majority of terrorist deaths have been in combat zones. In 2017, for example, according to the report, 84% of all terrorism-related deaths occurred in ten countries, all of which were categorized as being "in conflict." The top nations in terms of terrorism-related deaths were Afghanistan, Iraq, Nigeria, Somalia, and Syria.
41. For a review of domestic security measures that have helped reduce the threat of terror attacks in the United States in the wake of 9/11, see Michael A. Cohen and Micah Zenko, *Clear and Present Safety: The World Has Never Been Better and Why That Matters to Americans*, (New Haven and London: Yale University Press, 2019), pp. 135 through 138.
42. New America Foundation, "Part II: Who Are the Terrorists," in *Terrorism in America After 9/11*, accessed April 15, 2019.
43. New America Foundation, "Part IV: What Is the Threat to the United States Today?" in *Terrorism in America After 9/11*, accessed April 15, 2019.
44. David Zucchino, "Why Iraqi Army Can't Fight, Despite \$25 Billion in U.S. Aid, Training," *Los Angeles Times*, November 3, 2014.
45. Nick Turse, "The U.S. Military Is Conducting Secret Missions All Over Africa," *Vice News*, October 24, 2017.
46. Nick Turse, "It's Not Just Niger - U.S. Military Activity is a 'Recruiting Tool' for Terror Groups Across West Africa," *The Intercept*, October 26, 2017.
47. *Ibid.*
48. Ari Rickman and Salih Booker, "The Future Is African - and the United States Is Not Prepared," *Washington Post*, June 6, 2018.
49. For an analysis of the security benefits of a strategy of nuclear sufficiency, see Bruce G. Blair, Jessica Sleight, and Emma Claire Foley, *The End of Nuclear Warfighting: Moving to a Deterrence-Only Posture, Global Zero*, September 2018.

50. On the dangers of ICBMs and the policy of launch on warning, see William J. Perry, "Why It's Safe to Scrap America's ICBMs," *New York Times*, September 30, 2016.
51. Rebecca Kheel, "Two Dozen Senators Urge Trump to Extend Nuclear Treaty with Russia," *The Hill*, April 12, 2019.
52. Paul Sonne and John Hudson, "Trump Orders Staff to Prepare Arms-Control Push with Russia and China," *Washington Post*, April 25, 2019.
53. Jon Wolfsthal, "A U.S.-Russia-China Arms Treaty? Extend New START First," *Defense One*, May 2, 2019.
54. On warfighting versus deterrence-only, see Bruce G. Blair, with Jessica Sleight and Emma Claire Foley, *The End of Nuclear Warfighting: Moving to a Deterrence-Only Posture*, Global Zero, September 2018.
55. For one example among many analyses presenting the benefits of a no first use policy, see Michael Gerson, "No First Use: The Next Step for U.S. Nuclear Policy," *International Security*, Vol. 35, No. 2, Fall 2010.
56. The letter is cited in Tom Z. Collina, "America Would Never Be the First to Use Nukes. So Why Say We Might?" *The National Interest*, July 28, 2016.
57. William J. Perry, "Why It's Safe to Scrap America's ICBMs," *New York Times*, September 2016.
58. Blair et. al., *Global Zero*, op. cit.
59. Kingston Reif and Alicia Sanders-Zakre, "U.S. Nuclear Excess: Understanding the Costs, Risks, and Alternatives," *Arms Control Association*, April 2019.
60. *Ibid.*, p. 3.
61. See part two, below, for a detailed analysis of defense spending and the debt problem.
62. For more detailed figures and sources, see part two of this report.
63. For a summary of major negative impacts of climate change, see National Aeronautics and Space Administration (NASA), "Global Climate Change: Vital Signs of the Planet," accessed April 16, 2019.
64. For a comprehensive update on the impacts of climate change on public health see Nick Watts, et. al., "The 2018 Countdown of the Lancet Report on Health and Climate Change: Shaping the Health of Nations for Centuries to Come," *Lancet*, Vol. 392, Issue 10163, December 8, 2018.
65. Marshall Burke, Solomon M. Hsiang, and Edward Miguel, "Global Nonlinear Effect of Temperature on Global Production," *Nature*, Vol. 527, November 12, 2015.
66. Dana Varinsky, "Trump Administration Released a Dire New Report on Climate Change That Predicts Hundreds of Billions of Dollars in Economic Losses," *Business Insider*, November 23, 2018.
67. Matthew Taylor, "Climate Change Will Create World's Biggest Refugee Crisis," *The Guardian*, November 2, 2017.
68. These emissions are a result not only of war, but of on-going non-war operations and maintenance of military installations.
69. For a detailed analysis of the Pentagon's role in and policy towards climate change see appendix A.
70. Jerry M. Melillo, et al (eds), *Climate Change Impacts in the United States: The Third National Climate Assessment* (Washington DC: US Global Change Research Program, 2014); and, R.K. Pachauri and L.A. Meyer (eds), *Climate Change 2014: Synthesis Report* (Geneva, Switzerland: Intergovernmental Panel on Climate Change, 2015).
71. Ellen Powell, Miriam Pemberton, and Nathan Doctor, *Combat Vs. Climate: The Military and Climate Security Budgets Compared* (Washington DC, Institute for Policy Studies, Oct 5, 2016; and, *The Adaptation Gap Report 2018*, op. cit.
72. Not including biogenic sources or reductions from renewable energy use; the latter were less than 1% of emissions. In the most recent year for which statistics are available, total greenhouse gas emissions by the Department of Defense for Fiscal Year 2017 were about 58.4 million Metric Tons of CO₂ equivalent.
73. National Defense Strategy Commission, *Providing for the Common Defense: The Assessment and Recommendations of the National Defense Strategy Commission*, November 2018.
74. Continuing resolutions – which set funding at the spending level of the prior year – have been enacted frequently in recent years when Congress and the Administration cannot agree on the total spending level for defense.
75. National Defense Strategy Commission.
76. Figure drawn from: American War Library, "Vietnam War Allied Troop Levels 1960-73," December 2008. <https://www.americanwarlibrary.com/vietnam/vwatl.htm>.
77. This refers to funding that finances normal peacetime activities, like training and preparing for wars and supporting the extensive defense establishment of bases and support activities.

78. Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, "Defense Budget Overview," United States Department of Defense, March 2019, Figure 6.3. https://comptroller.defense.gov/Portals/45/Documents/defbudget/fy2020/fy2020_Budget_Request_Overview_Book.pdf.
79. Cheryl Pellerin, "Service Chiefs Detail 2014 Sequestration Effects," U.S. Air Force, September 19, 2013. <https://www.af.mil/News/Article-Display/Article/467167/service-chiefs-detail-2014-sequestration-effects/>.
80. U. S. Government Accountability Office, "Sequestration: Observations on the Department of Defense's Approach in Fiscal Year 2013," November 7, 2013. <https://www.gao.gov/products/GAO-14-177R>.
81. Amy Belasco, "Defense Spending and the Budget Control Act Limits," Congressional Research Service, July 22, 2015. <https://digital.library.unt.edu/ark:/67531/metadc743415/>.
82. Brendan W. McGarry, "Defense Budget and the Budget Control Act: Frequently Asked Questions," Congressional Research Service, July 13, 2018. <https://fas.org/sgp/crs/natsec/R44039.pdf>.
83. Amy Belasco, "The Cost of Iraq, Afghanistan, and Other Global War on Terror Operations Since 9/11," Report. Congressional Research Service, December 8, 2014. <https://fas.org/sgp/crs/natsec/RL33110.pdf>.
84. Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, "Defense Budget Overview," United States Department of Defense, March 2019.
85. Russell Rumbaugh, "What We Bought: Defense Procurement from FY01 to FY10," Stimson Center, October 31, 2011. <https://www.stimson.org/content/what-we-bought-defense-procurement-fy01-fy10>.
86. Sustainable Defense Task Force, Debt, Deficits, and Defense: A Way Forward, June 11, 2010. <http://www.comw.org/pda/fulltext/1006SDTReport.pdf>.
87. CNN Wire Staff, "Mullen: Debt Is Top National Security Threat," CNN, August 27, 2010. <http://www.cnn.com/2010/US/08/27/debt.security.mullen/index.html>.
88. Congressional Budget Office, "Budget and Economic Data." <https://www.cbo.gov/about/products/budget-economic-data#2>.
89. See Congressional Budget Office, 2019. <https://www.cbo.gov/system/files/2019-01/51134-2019-01-historicalbudgetdata.xlsx>.
90. OMB Historical Table 14.6, found here: <https://www.whitehouse.gov/omb/historical-tables/>.
91. Kimberly Amadeo, "Did TARP Help You or the Banks?" The Balance, November 15, 2018. <https://www.thebalance.com/tarp-bailout-program-3305895>.
92. Congressional Budget Office, "The Budget and Economic Outlook: 2019 to 2029," January 28, 2019.
93. Congressional Budget Office, "The Budget and Economic Outlook: 2019 to 2029," January 28, 2019.
94. U.S. Government, "A Budget for a Better America," The White House, March 11, 2019. <https://www.whitehouse.gov/wp-content/uploads/2019/03/budget-fy2020.pdf>.
95. On the supposed democratic advantage in war, see Dan Reiter and Alan C. Stam, *Democracies at War*, Princeton University Press, 2002.
96. For these estimates, see Neta C. Crawford, "United States Budgetary Costs of the Post-9/11 Wars Through FY 2019: \$5.9 Trillion Spent and Obligated," (Providence, RI: Watson Institute for International and Public Affairs, Brown University, November 14, 2018).
97. Thomas Oatley, *A Political Economy of American Hegemony: Buildups, Booms, and Busts*, 1st edition (New York, NY: Cambridge University Press, 2015).
98. For example, John Mearsheimer argues that recurrent military buildups are common under offshore balancing strategies similar to restraint. See John J. Mearsheimer, *The Tragedy of Great Power Politics* (New York: Norton, 2001), p. 157. Advocates of restraint also argue that preparations should be made to regenerate military capabilities reduced under the strategy in case of a future crisis. See Will Ruger, "The Case for Realism and Restraint," *Reason* 46, no. 8 (January 2015), p. 30.
99. Sarah Kreps, *Taxing Wars: The American Way of War Finance and the Decline of Democracy* (Oxford, New York: Oxford University Press, 2018), p. 17. This is also the logic behind the democratic advantage in war. See Reiter and Stam, *Democracies at War*.
100. Rosella Cappella Zielinski, *How States Pay for Wars*, 1 edition (Ithaca: Cornell University Press, 2016) 18-23; and Sarah Kreps, *Taxing Wars: The American Way of War Finance and the Decline of Democracy* (Oxford, New York: Oxford University Press, 2018), p. 8-11.2016
101. Sarah Kreps, *Taxing Wars*, p. 164-165.

102. Ibid, p. 4.
103. Ibid, p. 3-7; 16-21.
104. Crawford, "United States Costs of the Post-9/11 Wars Through FY 2019, p. 2; 6.
105. Tanisha M. Fazal, "Dead Wrong?: Battle Deaths, Military Medicine, and Exaggerated Reports of War's Demise," *International Security* 39, no. 1 (July 2014), p. 95-125.
106. Zielinski, *How States Pay for Wars*, p. 29-46.
107. Ibid, p. 54-59.
108. Ibid, p. 12.
109. John R. Zaller, *The Nature and Origins of Mass Opinion*, 1st edition (New York, NY, USA: Cambridge University Press, 1992). On elite cues and war, see Adam J. Berinsky, *In Time of War: Understanding American Public Opinion from World War II to Iraq*, 1st edition (Chicago: University of Chicago Press, 2009).
110. See Douglas Kriner, Breanna Lechase, and Rosella Cappella Zielinski, "Self-Interest, Partisanship, and the Conditional Influence of Taxation on Support for War in the USA," *Conflict Management and Peace Science* 35, no. 1 (January 1, 2018), p. 58.
111. Jonathan D. Caverley, *Democratic Militarism: Voting, Wealth, and War* (New York: Cambridge University Press, 2014).
112. Allen Schick, *The Federal Budget: Politics, Policy, Process*, Second edition (Washington, D.C: Brookings Institution Press, 2000), p. 294.
113. Tanisha M. Fazal and Sarah Kreps, "The United States' Perpetual War in Afghanistan," August 20, 2018, <https://www.foreignaffairs.com/articles/north-america/2018-08-20/united-states-perpetual-war-afghanistan>.
114. Heidi Garrett-Peltier, "Job Opportunity Cost of War," *Political Economy Research Institute*, May 25, 2017. <https://www.peri.umass.edu/publication/item/995-job-opportunity-cost-of-war>.
115. Jonathan Caverley, "America's Arms Sales Policy: Security Abroad, Not Jobs at Home," *War on the Rocks*, April 6, 2018. <https://warontherocks.com/2018/04/americas-arms-sales-policy-security-abroad-not-jobs-at-home/>.
116. Bureau of Industry and Security, "Offsets in Defense Trade: Twenty-First Study," U.S. Department of Commerce, December 2016. <https://www.bis.doc.gov/index.php/documents/pdfs/1620-twenty-first-report-to-congress-12-16/file>.
117. Miriam Pemberton, Ellen Powell, and Nathan Doctor, "Combat Vs. Climate," *Institute for Policy Studies*, October 5, 2016. <https://ips-dc.org/report-combat-vs-climate/>.
118. Infantry Brigade Combat Team Mobility, Reconnaissance, and Firepower Programs (Washington DC: Congressional Research Service (CRS), Updated Mar 27, 2019); The Army's Armored Multi Purpose Vehicle (Washington DC: CRS, Mar 14, 2019); Matthew E. Boyer, et al, *Assessing Conventional Army Demands and Requirements for Ultra Light Tactical Mobility* (Santa Monica: Rand Corp CA, 2018); US Army, *Weapon Systems Handbook 2018* (Washington DC: Office of the Assistant Secretary of the Army for Acquisition, Logistics and Technology, 2018); US Army, *Army Equipment Program 2017* (Washington DC: Dept of the Army, Feb 2016); Andrew Feickert, *The Army's M 1 Abrams, M 2/M 3 Bradley, and M 1126 Stryker* (Washington DC: CRS, Apr 5, 2016); and, *Selected Acquisition Reports for Joint Light Tactical Vehicle* (Mar 2016), *MH 60R Multi Mission Helicopter* (Mar 2016), *Guided Multiple Launch Rocket System/ Guided Multiple Launch Rocket System Alternative Warhead* (March 2016).
119. Shawn Snow, "MARSOC's light strike vehicles have limited use in the age of IEDs," *Marine Corps Times*, Jan 17, 2018; US Marine Corps, *2018 Marine Aviation Plan* (Washington DC: HQ USMC, 2018); *Amphibious Combat Vehicle Acquisition: Marine Corps Adopts an Incremental Approach* (Washington DC: Government Accountability Office, April 2015); and, *Selected Acquisition Reports for the Amphibious Combat Vehicle* (Dec 2017), *CH 53K King Stallion* (Dec 2017), *V 22 Osprey Joint Services Advanced Vertical Lift Aircraft* (Dec 2017), and *H 1 Upgrades* (Mar 2016).
120. David Z. Morris, "The V-22 Osprey Again Reveals Flaws in New Mishap," *Fortune*, August 5, 2017, <http://fortune.com/2017/08/05/v22-osprey-crash-australia/>.
121. Deputy Chief of Naval Operations, *Report to Congress on the Annual Long-Range Plan for Construction of Naval Vessels for Fiscal Year 2019* (Washington DC: Office of the Chief of Naval Operations, Feb 2018).
122. Jerry Hendrix, *ABuilding a 355-Ship Navy: It's Not Just the Number, It's the Mix*, *National Interest*, Sep 25, 2017; and, Bryan Clark, *ADeploying Beyond Their Means: The US Navy and Marine Corps at a Tipping Point*, *National Interest*, Nov 18, 2015.
123. Congressional Research Service, *Navy Frigate (FFG(X)) Program: Background and Issues for Congress* (Washington DC: Updated May 7, 2019); and, Sam LaGrone and Megan Eckstein, "Navy Picks Five Contenders for Next Generation Frigate FFG(X) Program," *USNI News*, Feb 16, 2018.
124. Colin Clark, *AWilson Presses For 40K More Airmen, 74 More Squadrons*, *Breaking Defense*, Sep 17, 2018.

125. Lt Gen T. Michael Moseley, "Operation Iraqi Freedom B by the Numbers," CENTAF Assessment and Analysis Division, 30 April 2003.
126. Congressional Budget Office, Options for Reducing the Deficit: 2019 to 2028 (Washington DC: Congressional Budget Office, Dec 13, 2018), ADefer Development of the B-21 Bomber, p. 143-144; and, Jeremiah Gertler, Air Force B-21 Raider Long-Range Strike Bomber (Washington DC: Congressional Research Service, Oct 12, 2018)
127. Op Cit, Counts of Active Duty and Reserve Service Members. The recent (2017) total of US active- and reserve-component personnel abroad is approximately 240,000. However, at least 60,000 of these are regarded as an increment tied to combat operations. Source of savings estimate: Michael J. Lostumbo, et al, Overseas Basing of U.S. Military Forces An Assessment of Relative Costs and Strategic Benefits (Santa Monica CA: RAND Corp, 2013)
128. Estimate derived from Michael J. Lostumbo, et al, Overseas Basing of US Military Forces An Assessment of Relative Costs and Strategic Benefits (Santa Monica CA: RAND Corp, 2013)
129. Congressional Budget Office, Options for Reducing the Deficit: 2019 to 2028, December 13, 2018.
130. Congressional Budget Office, Options for Reducing the Deficit: 2019 to 2028, December 13, 2018, pp. 125-127.
131. Federal Procurement Data System, "Total Actions by PSC Report."
132. Ibid.
133. Public comments from Scott Amey, General Counsel of Project On Government Oversight, submitted to Aisha Hasan of the Office of Federal Procurement Policy, Office of Management and Budget, on the use of cost comparisons, "Feds vs. Contractors: Federal Employees Often Save Money, But an Advisory Panel is Needed to Create a Cost Comparison Model," Project On Government Oversight, April 15, 2013. <https://www.pogo.org/letter/2013/04/feds-vs-contractors-federal-employees-often-save-money-but-advisory-panel-is-needed-to-create-cost-comparison-model/>
134. Note that this is higher than CBO's O&M savings option, which would save \$220 billion over ten years by freezing O&M spending at current levels for five years and then increasing it at the rate of inflation. In the view of this task force, the CBO option does not go far enough in addressing the wasteful spending on O&M.
135. Anthony Capaccio, "Military Pushes Parts Maker TransDigm to Return 'Excess Profit,'" Bloomberg, February 26, 2019. <https://www.bloomberg.com/news/articles/2019-02-27/military-pushes-parts-maker-transdigm-to-return-excess-profit>; Neil Gordon, "The 100-Hour Workday Is the New \$435 Hammer," Project On Government Oversight, October 19, 2015. <https://www.pogo.org/analysis/2015/10/100-hour-workday-is-new-435-hammer/>
136. Cost Assessment and Program Evaluation, Office of the Secretary of Defense, Comparing the Cost of Civilians and Contractors: Performance of Comparable DoD Functions, April 2017. https://admin.govexec.com/media/gbc/docs/pdfs_edit/dodcontractorcivilianpart1.pdf and https://admin.govexec.com/media/gbc/docs/pdfs_edit/dodcontractorcivilianpart2.pdf; Project On Government Oversight, Bad Business: Billions of Taxpayer Dollars Wasted on Hiring Contractors, September 13, 2011. <https://www.pogo.org/report/2011/09/bad-business-billions-of-taxpayer-dollars-wasted-on-hiring-contractors/>
137. Defense Business Board, "Transforming DoD's Core Business Processes for Revolutionary Change," January 22, 2015, p. 10. <http://apps.washingtonpost.com/g/documents/investigations/defense-business-board-study-from-jan-2015-identifying-125-billion-in-waste/2236/>
138. Robert Hale, "Testimony of Honorable Robert F. Hale, Former Comptroller and Chief Financial Officer, Department of Defense, before the House Armed Services Committee on 'Starting Acquisition Programs Well: Budget Issues,'" February 3, 2016, p. 6. <https://docs.house.gov/meetings/AS/AS00/20160203/104381/HHRG-114-AS00-Wstate-HaleR-20160203.pdf>
139. Government Accountability Office, Weapon Sustainment: DOD Needs to Better Capture and Report Software Sustainment Costs, February 25, 2019, p. 1, 18. <https://www.gao.gov/assets/700/697069.pdf>
140. Dan Grazier, "Defense Contractors Holding the Pentagon Hostage with Service Contracts," Project On Government Oversight, November 30, 2017. <https://www.pogo.org/investigation/2017/11/defense-contractors-holding-pentagon-hostage-with-service-contracts/>
141. Congressional Budget Office, Options for Reducing the Deficit: 2019 to 2028, December 13, 2018, p. 130-131.
142. Christopher A. Preble and William D. Hartung, "America Has Too Many Military Bases," The National Interest, February 6, 2017.
143. Sen. Dianne Feinstein and Rep. Adam Smith, "Cancel the New Nuclear Cruise Missile," in Tom Z. Collina and Geoff Wilson, editors, "10 Big Nuclear Ideas for the Next President," Ploughshares Fund, November 2016, p. 21-24.
144. William Perry, "Why It's Safe to Scrap America's ICBMs," New York Times, September 30, 2016.
145. Jeremy Herb, "White House, Mattis Oppose Creation of 'Space Corps,'" CNN.com, July 12, 2017.
146. Ellen Mitchell, "House Armed Services Committee Chairman Casts Doubt Over Trump's Proposed Space Force Budget," The Hill, March 13, 2019.

147. Congressional Budget Office, "The Personnel Requirements and Costs of New Military Space Organizations," May 2019, p. 6. The estimate is based on \$1.4 billion in startup costs, along with \$1.1 billion in additional annual costs over 10 years. This allows two years for the force to be set up before additional annual costs begin to accrue.
148. Patrick Tucker, "Pentagon Wants to Test a Space-Based Weapon in 2023," *Defense One*, March 14, 2019.
149. Congressional Budget Office, *Options for Reducing the Deficit: 2019 to 2028*, December 13, 2018, p. 152-153.
150. For example, canceling a proposed "interoperable warhead" that could be used both on ICBMs and Submarine-Launch Ballistic Missiles could save \$2.8 billion over 10 years. Retiring the B-83 warhead once a replacement has been completed could save an additional \$3 billion. See National Nuclear Security Agency (NNSA), "Projected Costs for the 3+2 Versus Status Quo Options for the B-61" and Congressional Budget Office, "Approaches to Managing the Costs of U.S. Nuclear Forces, 2017 to 2046," October 2017, p. 31.
151. For the estimate of savings from reduced "pit" production, see Congressional Budget Office, "Projected Costs of U.S. Nuclear Forces, 2019 to 2028," January 2019, p. 5.
152. Letter to President Trump from Senators Markey, Feinstein, Merkley, Warren et. al., January 29, 2018.
153. "An Open Letter on BRAC," Cato Institute, June 29, 2017. https://object.cato.org/sites/cato.org/files/articles/brac_letter2.pdf; Department of Defense, Department of Defense Infrastructure Capacity, March 2016, p. 18-19. <https://defensecommunities.org/wp-content/uploads/2015/01/2016-4-Interim-Capacity-Report-for-Printing.pdf>
154. Amy F. Woolf and James D. Werner, The U.S. Nuclear Weapons Complex: Overview of Department of Energy Sites, Congressional Research Service, September 6, 2018, p. 1. <https://fas.org/sgp/crs/nuke/R45306.pdf>
155. Congressional Budget Office, *Options for Reducing the Deficit: 2019 to 2028*, December 13, 2018, p. 125-127.
156. Secretary of Energy Advisory Board Task Force on Alternative Futures for the Department of Energy National Laboratories, *Alternative Futures for the Department of Energy National Laboratories*, February 1995. http://scipp.ucsc.edu/~haber/UC_CORP/galvin.htm; Department of Energy Office of Inspector General, *Management Challenges at the Department of Energy*, November 2011, p. 2-3. <https://www.energy.gov/sites/prod/files/IG-0858.pdf>
157. Department of Energy Office of Inspector General, *Management Challenges at the Department of Energy*, November 2011, p. 2-3. <https://www.energy.gov/sites/prod/files/IG-0858.pdf>
158. Stimson Center, Task Force on Leveraging the Scientific and Technological Capabilities of the NNSA National Laboratories for 21st Century National Security, *Leveraging Science for Security: A Strategy for the Nuclear Weapons Laboratories in the 21st Century*, March 2009, p. 37. https://www.stimson.org/sites/default/files/file-attachments/Leveraging_Science_for_Security_FINAL_1.pdf
159. "POGO Releases Defense Dept. Memo that Points to Weaknesses of Energy Dept. Labs," *Project On Government Oversight*, April 18, 2012. <https://www.pogo.org/letter/2012/04/pogo-releases-defense-dept-memo-that-points-to-weaknesses-of-energy-dept-labs/>
160. Nuclear Weapons Complex Infrastructure Task Force, *Recommendations for the Nuclear Weapons Complex of the Future*, July 13, 2005, pp. 2, 21. https://www.globalsecurity.org/wmd/library/report/2005/nwcltf-rept_13jul2005.pdf
161. Lydia Dennett, "Nuke Agency Needs Budget Accountability," *Project On Government Oversight*, May 1, 2018. <https://www.pogo.org/investigation/2018/05/nuke-agency-needs-budget-accountability/>
162. National Nuclear Security Administration, "NNSA completes removal of high security special nuclear material from the Laboratory," September 21, 2012. <https://www.llnl.gov/news/nnsa-completes-removal-high-security-special-nuclear-material-laboratory>
163. Lydia Dennett, "A realignment commission for national labs: How to downsize America's bloated and unsecure nuclear weapons complex," *Bulletin of the Atomic Scientists*, November 1, 2014. <https://thebulletin.org/2014/11/a-realignment-commission-for-national-labs-how-to-downsize-americas-bloated-and-unsecure-nuclear-weapons-complex/>
164. Department of Energy Office of Inspector General, *Management Challenges at the Department of Energy*, November 2011, p. 11-12. <https://www.energy.gov/sites/prod/files/IG-0858.pdf>
165. For a more detailed analysis of the issues covered in this appendix, see Neta Crawford, "The Pentagon, Fuel Use, Climate Change, and the Costs of War," *Brown University Costs of War Project*, forthcoming.
166. These emissions are a result not only of war, but also of on-going non-war operations and maintenance of military installations.
167. Not including biogenic sources or reductions from renewable energy use; the latter were less than 1% of emissions. In most recently available statistics, total greenhouse gas emissions by the Department of Defense for Fiscal Year 2017 were about 58.4 million Metric Tons of CO₂ equivalent.
168. The White House, "National Security Directive 45," *Federation Of American Scientists*, August 20, 1990. https://fas.org/irp/offdocs/nsd/nsd_45.htm.

169. Peter Baker, "Bush Says U.S. Pullout Would Let Radicals Use Oil as a Weapon," *Washington Post*, 5 November 2006. <http://www.washingtonpost.com/wp-dyn/content/article/2006/11/04/AR2006110401025.html>.
170. See Charles L. Glaser and Rosemary A. Kelanic, eds., *Crude Strategy: Rethinking the U.S. Military Commitment to Defend Persian Gulf Oil* (Washington, DC: Georgetown University Press, 2016); John Glazer, "Does the U.S. Military Actually Protect Middle East Oil?" *Cato Institute*, 9 January 2017. <https://www.cato.org/publications/commentary/does-us-military-actually-protect-middle-east-oil>; Emma Ashford, "Unbalanced: Rethinking America's Commitment to the Middle East," *Security Studies Quarterly*, vol. 12, no. 1 (Spring 2018) p. 127-148. Also see Milton R. Copulos, "America's Achilles Heel: The Hidden Cost of Imported Oil," *The National Defense Council Foundation*, (Washington, DC: October 2003). <http://citeseerx.ist.psu.edu/viewdoc/download?sessionid=DD3F77E8166A096D9F1BB3B6151991257&doi=10.1.1.186.7523&rep=rep1&type=pdf>.
171. For instance, see the US National Intelligence Council, "Implications for U.S. National Security of Anticipated Climate Change," 21 September 2016.
172. Department of Defense, "2014 Climate Change Adaptation Roadmap," https://www.acq.osd.mil/eie/Downloads/CCAR-print_wForward_e.pdf.
173. Department of Defense, "Report on the Effects of a Changing Climate to the Department of Defense," Office of the Undersecretary of Defense for Acquisition and Sustainment, January 2019. https://climateandsecurity.files.wordpress.com/2019/01/sec_335_ndaa-report_effects_of_a_changing_climate_to_dod.pdf.
174. Department of Defense, "Report on the Effects of a Changing Climate to the Department of Defense," p. 5. Thawing permafrost is already occurring at Fort Greeley, Alaska.
175. See U.S. Navy "Climate Change Roadmap," April 2010, Department of the Navy, <https://www.navy.mil/navydata/documents/ccr.pdf>.
176. US Navy Task Force on Climate Change, "The United States Navy Arctic Roadmap, 2014-2030," February 2014, <http://navysustainability.dodlive.mil/files/2014/02/USN-Arctic-Roadmap-2014.pdf>.
177. Memorandum for the Heads of Executive Departments and Agencies, Climate Change and National Security, 21 September 2016, <https://www.justice.gov/opa/file/895016/download>.
178. White House, "Findings from Select Federal Reports: The National Security Implications of Climate Change" May 2015, p. 3.
179. National Intelligence Council, "Implications for US National Security of Anticipated Climate Change," NIC WP2016-01, 21 September 2016, https://www.dni.gov/files/documents/Newsroom/Reports%20and%20Pubs/Implications_for_US_National_Security_of_Anticipated_Climate_Change.pdf.
180. Annual Data on Energy from <https://www.energy.gov/eere/femp/federal-facility-annual-energy-reports-and-performance>.
181. Office of the Assistant Secretary of Defense, Department of Defense Annual Energy Management and Resilience Report (AEMRR) <https://www.acq.osd.mil/eie/Downloads/IE/FY%202017%20AEMR.pdf>.
182. Congressional Budget Office, *The US Military's Force Structure: a Primer* (Washington DC, Jul 2016).
183. US Army, FM 3-04 Army Aviation (Washington DC: Dept of the Army, Jul 2015); US Marine Corps, Amphibious Ready Group and Marine Expeditionary Unit - Overview (Washington, DC: USMC, 21 Mar 2014); US Army, Supplemental Manual 3-90, Force Structure Reference Data Brigade Combat Teams (Fort Benning, GA: Maneuver Center of Excellence, Sep 2012); and, Naval Aviation Vision (Patuxent River MD: Naval Aviation Enterprise, Jan 2012).
184. Key sources for weapon system cost and acquisition data include Office of the Under Secretary of Defense Comptroller/Chief Financial Officer, Program Acquisition Costs by Weapon System 2018, 2019, 2020 (Washington DC: Mar 2019, Feb 2018, and May 2017); Office of the Under Secretary of Defense for Acquisition, Technology and Logistics, Selected Acquisition Reports (Washington DC, 2015-2018); and, Jacob Cohn, Ryan Boone, Amber Oar, FY 2018 Weapon Systems Factbook (Washington DC: Center for Strategic and Budgetary Assessment, 2017) - as well as numerous weapon system acquisition reports from the Congressional Budget Office (CBO), Congressional Research Service (CRS), and Government Accountability Office (GAO).

