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TERRORISM AND THE NEW AGE OF IRREGULAR WARFARE: CHALLENGES AND OPPORTUNITIES

HEARING

BEFORE THE

TERRORISM, UNCONVENTIONAL THREATS AND CAPABILITIES SUBCOMMITTEE

OF THE

COMMITTEE ON ARMED SERVICES
HOUSE OF REPRESENTATIVES

ONE HUNDRED ELEVENTH CONGRESS

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CONTENTS

CHRONOLOGICAL LIST OF HEARINGS

2009

Page

HEARING:

Thursday, April 2, 2009, Terrorism and the New Age of Irregular Warfare: Challenges and Opportunities 1

APPENDIX:

Thursday, April 2, 2009 27

THURSDAY, APRIL 2, 2009

TERRORISM AND THE NEW AGE OF IRREGULAR WARFARE: CHALLENGES AND OPPORTUNITIES

STATEMENTS PRESENTED BY MEMBERS OF CONGRESS

Miller, Hon. Jeff, a Representative from Florida, Ranking Member, Terrorism, Unconventional Threats and Capabilities Subcommittee 1

Smith, Hon. Adam, a Representative from Washington, Chairman, Terrorism, Unconventional Threats and Capabilities Subcommittee 5

WITNESSES

Alexander, Bevin, Adjunct Professor, Longwood University 2

Dreifus, Henry N., Founder and CEO, Dreifus Associates, Ltd., Inc. 3

Hartung, William D., Director, Arms and Security Initiative, New America Foundation 7

Robb, John, Warfare Theorist, Author 5

APPENDIX

PREPARED STATEMENTS:

Alexander, Bevin 34

Dreifus, Henry N. 42

Hartung, William D. 52

Miller, Hon. Jeff 32

Robb, John 48

Smith, Hon. Adam 31

DOCUMENTS SUBMITTED FOR THE RECORD:

[There were no Documents submitted.]

WITNESS RESPONSES TO QUESTIONS ASKED DURING THE HEARING:

[There were no Questions submitted during the hearing.]

QUESTIONS SUBMITTED BY MEMBERS POST HEARING:

[There were no Questions submitted post hearing.]

TERRORISM AND THE NEW AGE OF IRREGULAR WARFARE: CHALLENGES AND OPPORTUNITIES

HOUSE OF REPRESENTATIVES,
COMMITTEE ON ARMED SERVICES,
TERRORISM, UNCONVENTIONAL THREATS AND CAPABILITIES
SUBCOMMITTEE,
Washington, DC, Thursday, April 2, 2009.

The subcommittee met, pursuant to call, at 3:35 p.m., in room 2118, Rayburn House Office Building, Hon. Jeff Miller (ranking member of the subcommittee) presiding.

OPENING STATEMENT OF HON. JEFF MILLER, A REPRESENTATIVE FROM FLORIDA, RANKING MEMBER, TERRORISM, UNCONVENTIONAL THREATS AND CAPABILITIES SUBCOMMITTEE

Mr. MILLER. The chairman is just a few minutes delayed. We have a vote that is scheduled to come up very quickly.

I am a member of the minority party, and ordinarily we would not begin a hearing or a brief with just a member of the minority party. However, I have a microphone, and I am going to ask for unanimous consent to allow me to begin the hearing until such time as a majority member arrives and can take the chair.

Hearing no objections, we will begin the hearing. In fact, I will begin part of my statement and enter the balance of it into the record, because we are going to have a vote—a single vote—then go about 40, 45 minutes, have another vote, and our plan is to continue the hearing moving forward, and so we will not have to take a block of time out.

But we have all realized a significant paradigm shift in our view of national security since entering the new millennium; and that is not to say that we haven't been faced with similar challenges in the past, and we have experienced a number of conventional conflicts in the last century, from World War I to Desert Storm.

Guerilla warfare and insurgencies, counterinsurgencies have pocked the globe from El Salvador to Zimbabwe to Mongolia. Terrorism frequents nightly news reports and the daily papers with hijackings, bombings, hostage taking, and murders.

While these conflicts ran the spectrum of conflict, our national military strategy continues—or continued to that time along Cold War lines of thinking, focusing on the need to respond to major conventional conflicts. Terrorism was treated as a law enforcement issue and national security responsibilities remained fairly well delineated among agencies with little crossover or communication.

That bell signals the start of the first vote. The intention is that the chairman will go vote first and then he will come in and take

my place while I go to the vote. And I will, without objection, submit my statement for the record.

Hearing no objection, so ordered.

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

Mr. MILLER. And I would like to welcome our witnesses today: Mr. Alexander, from Longwood University; Mr. Dreifus, founder and CEO of Dreifus Associates; Mr. Robb, thank you, sir; and Mr. Hartung.

I do not know if there is a—if you, among yourselves, have flipped a coin as to who will begin, but please, if you wish, you may—I believe we will start alphabetically with Mr. Alexander. Bet you got that all your life, didn't you?

Mr. ALEXANDER. Yes, sir. It didn't help me a lot; it helps in the reverse. I usually get the worst jobs because I am first.

Mr. MILLER. Thank you, sir.

STATEMENT OF BEVIN ALEXANDER, ADJUNCT PROFESSOR, LONGWOOD UNIVERSITY

Mr. ALEXANDER. Mr. Chairman, I am going to make a very short presentation which outlines the principle points of the paper that I presented to you. There are six points.

Number one: The world has moved entirely away from conventional warfare because the Global Positioning System, or GPS, permits weapons to be guided with complete accuracy to any point on earth.

This has ended the possibility of concentrating military forces because mass troops become easy targets. Soldiers no longer can survive on traditional battlefields.

Point number two: Military formations today must be small, well trained, well armed, mobile, and stealthy. The Army must be subdivided into combat teams of only a couple dozen or so soldiers each.

These teams will be extremely lethal, however, because they can call in powerful weapons on any target. Warfare in the future will be waged by these small combat teams working in coordination with other teams, all connected within a network of computers, radios, and television cameras that will provide instantaneous communications and quick delivery of bombs and missiles.

Point three: Because of GPS, military elements must disperse widely over the landscape. Dispersion has eliminated the main line of resistance, or MLR, that was a central element of warfare in the 20th century.

The model of warfare in the future will be indirect strikes against targets that are ill-defended or not defended at all. In other words, attacks will avoid enemy strength and strike at enemy weakness.

Point number four: Indirect surprise attacks and ambushes were the original forms of warfare, going back to the Stone Age. They are the only types of attack that will be successful in the future because direct, obvious attacks can be stopped by GPS-delivered bombs, rockets, and missiles.

Point number five: Strikes from the air will be delivered primarily by attack helicopters and unmanned aerial vehicles, or

UAVs, such as the Predator and the Reaper, a more heavily-armed cousin of the Predator. UAVs cost much less than manned aircraft, like the F–22 Raptor fighter plane, and long-range bombers. They can operate much closer to combat teams, they can hover over an area and pick out targets with greater accuracy, and they can deliver powerful rockets or other weapons.

Drones are already the weapons of choice in Afghanistan. Predators and Reapers are flying 34 patrols a day in Iraq and Afghanistan. They are transmitting 16,000 hours of video each month, some of it directly to troops on the ground.

Point number six: The U.S. military today is still largely structured to face the conventional armies that existed in the 20th century. This must change. We must return to our oldest and most successful form of combat: indirect guerilla-like warfare conducted by small, nearly invisible teams.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Alexander can be found in the Appendix on page 34.]

Mr. MILLER. Thank you, sir.

Mr. Dreifus.

STATEMENT OF HENRY N. DREIFUS, FOUNDER AND CEO, DREIFUS ASSOCIATES, LTD., INC.

Mr. DREIFUS. Good afternoon. Thank you, Mr. Chairman.

I also have a statement that I would like to submit, and I have just a few points that I would like to make. First, Dr. Alexander, I believe sums it up very, very acutely and correctly. Everything we know about war is changing. And in fact, I would posit that we are now in the Internet age of war, which is even more asymmetric, it is rapidly evolving, and it is very dynamic.

It is dynamic because it is not just a traditional battlefield; it is a virtual battlefield. There is going to be a new high ground, which we need to learn about and gain its advantage.

It is also propelled by a war of ideas moving at speed that touches billions of people—and I mean billions of people—in literally milliseconds. It does not care about sovereign boundaries. It is leveraged, and a battle can begin and end in the blink of an eye.

The electronic subversion of Estonia—and just before Russia went into the Republic of Georgia—they were electronic attacks that preceded a physical attack, in the case of Russia. That is going to be the new rule and not the exception.

We are already at war. Imagine one morning—and this is not that farfetched—that you wake up and you cannot use or trust the Internet. E-mail and other services we take for granted are not going to be there for us when we want to use them. Now, one hour of that may be a nuisance, but what happens when that one hour becomes one day, and one day becomes one week, and one week becomes one month? That will severely and massively disrupt our economy and our security.

The Internet isn't just about e-mail. There are so many services today that use it that are behind the scenes that get the job done. TV, for example—when you turn on cable or regular TV, most of that information is actually digitized Internet information. When you make a phone call, the backbones of our networks are Internet.

Banking, factories, using your charge card at a store—that is all relying on the Internet today.

The economic consequences of losing this kind of capability are far greater than the current global economic crisis. A loss of the productivity alone—we lose that Internet—will be much greater on our Gross Domestic Product (GDP) than the current economic crisis.

What is important to note here is that all the fighter planes, the submarines, the guns, the tanks, everything we have got in our arsenal, doesn't help us fight this war. A $200 million, $300 million F–22 Raptor gives you no benefit in defeating this kind of threat.

I will also posit that this is not just a problem of defense alone. This has to go across other agencies and other parts of government and industry.

We are at a disadvantage in our country today because we have seams. These are seams across—not only inside defense, but seams across our government. There is high potential for friction, avoidance, divergence between agencies. There is infighting, there is conflict, and there is not a common vision.

And in fact, our enemies count on us not being efficient as a whole of government. So what we really need is a whole of government, and it is easy to say but it is probably much harder to do.

In addition, we also wrestle with an economic dilemma. How do we prepare and defend for these kinds of future threats, given we have a limited amount of resources and very high overheads? And as Dr. Alexander pointed out, we are looking at an Industrial Age Cold War model.

If we are looking at it today, the conventional thinking is it is a 15-year business cycle, which means that tomorrow's technology that is going to be fielded is going to be fought by our soldiers and warfighters who are still in preschool today, and most likely these will be obsolete weapons and they will be combating a challenge and a threat that may not be there.

What we have is also an idea that Defense thinks that bigger is better. I would suggest to the committee that faster, not bigger, is better. Faster is also less expensive.

Today you have got a Hobson's choice: conform to the Defense Department you have or risk having nothing at all. I believe you need to change this from the Hobson model to a new model. Part of the way you do that is to embrace a digital mindset.

Right now we think in an analog—an Industrial Age—mindset. There is much we can do to fuse our agencies and our workforce; not just our military, but across the entire government. And using Information Age tools and applying them, whether it is wikis, and blogs, and even Facebook and social networking tools, that will make our government more efficient and more effective to fight this kind of enemy that attacks in milliseconds.

The summary of my points are that the unconventional is already the conventional. Information travels at the speed of light, and so does our enemy. It impacts billions of people within seconds, and it is important to note that millions of people each day are joining the Internet and becoming online. It does not respect geographies and sovereignty.

And we need to find and understand that new high ground in the digital battlespace. That is going to be challenging and dynamic, but that is what we have to do.

I humbly suggest as a nation that our government needs to think differently and seamlessly. Quite frankly, an analog government in the digital age is rapidly becoming obsolete. Thank you.

[The prepared statement of Mr. Dreifus can be found in the Appendix on page 42.]

STATEMENT OF HON. ADAM SMITH, A REPRESENTATIVE FROM WASHINGTON, CHAIRMAN, TERRORISM, UNCONVENTIONAL THREATS AND CAPABILITIES SUBCOMMITTEE

Mr. SMITH. [Presiding.] Thank you very much.

And I apologize for the comings and goings here. We have our budgets being debated today, which means every 40 minutes we have one vote, and it has got people moving around.

And I apologize that we don't have other members here. They are dashing in between those votes as well. We thought it best to keep going instead of just breaking the hearing up to the point where we couldn't keep track of anything.

So that is what we are attempting to do, and I appreciate your patience. And I do appreciate the witnesses being here. I apologize for being late.

With that, we will turn to Mr. John Robb for your opening statement.

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

STATEMENT OF JOHN ROBB, WARFARE THEORIST, AUTHOR

Mr. ROBB. Well, thank you, Mr. Chairman, for the invitation.

Thank you Mr. Natter and congratulations on the new job.

My focus is on small group warfare and how small groups can leverage new technologies—networks—to take on nation states and win. We have seen a lot of innovation in the theory of warfare over the last five, six years, and we are about to see a big boost in that capability.

One of the big reasons that things are going to become more difficult for us is that we are caught in an economic crisis. And my friend, Nassim Taleb, wrote a great book, "The Black Swan," I recommend it. And we have been looking at the global system as a dynamically unstable system for quite some time that has been weakening nation states and their ability to control their borders, their finances, their economy, their media, et cetera. And this dynamically unstable system is prone to access.

Unfortunately, we have added some bad feedback loops. We have added too much debt—not just in the U.S. government, across the board. We are running at about 350 percent of GDP in debt right now. That is above the 150 percent that is sustainable. It puts us about $20 trillion in the hole.

Last time it peaked at this point it was 290 percent or so in 1929, and it got run down. That has to be taken out before things return to some semblance of normal.

The other part is the derivative side, and I trained on the Street to, you know, do the derivatives trading. Luckily I didn't hop into Citi Bank to do that. But essentially it is just too complex.

My brother-in-law runs—he is chief programmer for RiskMetrics, and, you know, I have always been debating him and telling him that his assumptions—his core assumptions—that he is writing into the software are basically incorrect. And that has essentially proven true over time.

No one knows which levers to pull in order to stabilize the system. Until we get the financial system back to just simple vanilla options and basic economic instruments—utility status for banks—that complexity is going to, you know, drive us into the hole.

So from my perspective, we are headed towards almost an inevitable global depression, and the impact on the government is, of course, smaller budgets. You know, I was at the Highlands Forum about a year or so ago and they asked me for outside-the-box projection. I said, "Get used to operating on 50 percent of your current budget 5 years from now. Get lean." Of course, they looked at me like I had bats flying out of my ears, but you know, knowing that the dynamic global system is going to come off the rails is giving me the kind of insight to project that.

The other part is that as you see the financial systems and the economic systems of marginal states gutted due to the depression environment, you will see the growth in small groups, for motivations across the board, whether they are gangs, whether they are tribes, whether they are different flavors of Jihadi—whatever group that provides the services and security that keep people alive and progressing is going to, you know, step into the fold.

And these groups are super-empowered with new technology being driven at the rate of Moore's Law, doubling in capability. That applies to biotech. You know, what used to take five Ph.D.s a week five years ago is done by a lab technician with a lab on a chip today.

Access to networks we can find out exactly how to do the best Improvised Explosive Device (IED) production, and then access the global economy, which is a phone call away, as the Somali pirates just found out—you take a Saudi tanker, you call up the company that runs it, get money. Those groups are proliferating from Mexico to Pakistan to Nigeria.

They are making money; they are getting better at warfare; they are operating using an open source fashion where they are coordinating their activities. And the innovation rates and the technologies and capabilities that they are fielding is 20 to 30 times faster than we saw with the Irish Republican Army (IRA) and, you know, traditional groups.

This depressionary environment—this economic calamity—is going to drive that trend line forward at a very rapid rate just at the very moment we have fewer resources to combat it.

Thank you very much.

[The prepared statement of Mr. Robb can be found in the Appendix on page 48.]

Mr. SMITH. I don't think I can say thank you. It is just too depressing. We appreciate your analysis, and I think there are certainly key lessons to be learned from that, and I think you are

more accurate than less, certainly, in where we are headed and what we need to do, so I appreciate that.

Mr. Hartung.

STATEMENT OF WILLIAM D. HARTUNG, DIRECTOR, ARMS AND SECURITY INITIATIVE, NEW AMERICA FOUNDATION

Mr. HARTUNG. Yes. Thanks for the invitation to be here today. I am very interested to hear what my colleagues on the panel have had to say.

I am going to talk almost entirely about resources. President Obama's new strategy for Afghanistan and Pakistan and fighting terrorism more broadly is going to be an expensive proposition, not only for additional troops in Afghanistan, additional economic assistance, and it is going to be in a context of a deficit that this year could reach $1.8 trillion—we will stay over $1 trillion next year. So the idea of putting this on our great national credit card—the debt—does not really seem like it is an option for us.

The drawdown in Iraq is going to be complicated; it is not going to be something that happens overnight. There is going to be costs for resetting the force. There is going to be expanded training missions. So I don't think we can look to that as a source of resources to fund some of the increases in these other areas.

So I would argue the best place to find resources, so we don't ramp up the deficit, would be to restructure our national security budget—not just the Pentagon, but the State Department, development assistance, the whole range of civilian and military tools that we use to carry out our foreign policy. I think we need a dramatic rebalancing of how we spend that money.

And in order to do that, I think there is some obvious places that we could cut weapons systems out of the current budget. I know the administration is, as we speak, contemplating just such cuts. I am encouraged that President Obama, at least for starters, stood up to the services' wish lists when they were hoping to ask for $50 billion, $60 billion more than he ultimately set as his top line for the 2010 budget.

And I think some of the places where we would cut would be, for example, you have F–22 combat aircraft in an era when our main adversaries in many cases don't even have an air force. We don't need to purchase the most expensive fighter plane ever built, which has limited ground attack capability, which takes funds away from other military and civilian priorities.

The F–35, the next generation fighter, is being run ahead much too rapidly; it hasn't been tested yet. We may well buy $57 billion worth of F–35s before we have even finished testing, which just means any problem that comes up will have to be dealt with in some sort of expensive retrofit.

The DDG–1000 Destroyer is going to come in at $3.6 billion each. I think that is an expensive way to have a ship that can, you know, put some ammunition and missiles onto land to support our troops. I think there has got to be a better way to do that. Likewise, the *Virginia*-class submarine—a lot of the missions that it has been tasked with I think can be done more cheaply with existing submarines with some adaptations.

I think the biggest areas where we can save money are nuclear weapons where, in keeping with the president's goal of getting rid of these things all together and the practical steps to get there, we could probably save on the order of $10 billion a year on operations and procurement costs. And I think in the short term one of the most important things we could do is forego spending money on new nuclear weapons factories, which the Department of Energy's National Nuclear Security Administration is proposing to do. That makes no sense at a time when we are going to be radically reducing nuclear force.

Finally, missile defense: I don't foresee an instance where a country like North Korea or Iran is going to risk ending their country as they know it in order to launch a ballistic missile at the United States. Even if they chose to do so and they used simple decoys, the tens and hundreds of billions of dollars we have spent gives us no reliable expectation that this system is going to work.

I think we could have a research program. We could look at mid-range defenses which, I think, have more promise, and I think we would be able to cut probably $7 billion a year.

So in closing I would just say, you know, where should we spend this money? Secretary Gates has made a good point about the lack of balance in our security portfolio. He has talked about the need for more spending on the State Department. He made an interesting comparison. He said, "Well, you know, it takes more personnel to run one aircraft carrier task force than we have trained foreign service officers."

So we have 11 aircraft carrier task forces; we only have one State Department. I think we have to start righting that imbalance.

The president has talked about doubling foreign aid by 2015. I think that is a worthy goal. And yet, he is already running into problems in the Congress about whether this is the time to do that, can we afford to do that? And I think there is obvious—and some of the areas I talked about where we can find funding to do that.

I think, finally, on a smaller scale, the aid program for Pakistan that has been proposed, $1.5 billion a year for 5 years, is relatively small amount compared to the savings we could get from cutting unnecessary weapons programs. So I think that is a good summary of my prepared statement, and I look forward to the discussion we are all going to have.

Thank you.

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

Mr. SMITH. Thank you. I want to follow up on that particular point, because I very much agree with you, that is one of the battles we fight in this committee is on the resources and the funding.

You know, we have got a lot of the big, expensive programs, and you have mentioned, I think, the million highlights on that, whereas, on the other hand, if we are going to be fighting more irregular types of warfare there are other places that we need to spend our money—on our special operations forces, on human terrain teams, on asymmetric warfare, cyber-security, a bunch of different areas.

I guess the challenge that always comes back is the potential threat from Russia and China. I mean, I have my own personal answer, and that is that diplomatically, you know, we need to find a

way to peacefully coexist with those countries, and I don't see any reason in the current environment why we can't.

But still, it drives much of what we do at the full committee level. You know, we are constantly getting updates on, "Here is what, you know, here is what Russia is talking about building. China is building submarines. You know, they are going to build the—we have to build the F–22 to respond to whatever it is they are building." And fundamentally I don't accept that analysis, but I am curious how you would counter that argument in terms of what we need to do, and I see Mr. Robb seems to have an interest in this as well, so I would be curious in any other comments from any of the other panelists on that subject.

Mr. HARTUNG. Well, I think one thing to consider is that the same economic pressures we have are coming down, I think, in multiple fashions on Russia, on China. I think if we can work together cooperatively to deal with some of the economic problems of the world, to deal with things like climate change, to find some constructive areas, I think that will help dampen down the military competition.

I also think that for the most part we still have significant technological edge. I think in the case of China, at the most seem to want to be maybe a regional player, not a global threat to the United States. I think Russia still—especially with unpredictable oil prices—I don't think really has a very predictable ability to invest substantially and consistently in its military forces.

And I think to the extent that President Obama reaches out on things like nuclear arms control through the kind of meeting he had with Mr. Medvedev just the other day, I think we have ways to leverage these things politically and through economic relationships so that we don't have to run a sort of traditional arms race. And I think if we try to do that we are going to miss, you know, the real threats that we face.

Mr. SMITH. And I think that is one of the critical policy choices that we face, is to avoid getting into that type of arms race with two countries. And neither country, at this point—China or Russia—has an expansionist approach.

It is not like the Soviet Union when they were trying to find client states all over the world, you know, and to build up their ideology and their military reach. I mean, mostly, you know, China in particular is trying to expand their economic influence, but we can compete with them on that without an F–22.

Mr. Alexander, you have a comment?

Mr. ALEXANDER. Mr. Chairman, I think the point that has been made about that is quite interesting. However, I want Mike to make a point that hasn't been made so far, and that is that we can not fight a war against a nuclear power. We are never going to be able to fight a war against a nuclear power.

There is not possibility of us ever fighting a war against China or the Soviet Union, because the possibilities of engaging in such a war are so devastating that they are never going to happen. So the only way we are going to fight these countries, if we have to fight them, will be by surrogates. So the idea that we have to set up defensing programs to defend against a submarine of the Chinese, for example, or a aircraft of Russia is absolutely false.

We do not have to fight these countries because we can not fight these countries, and we will never be able to fight these countries.

Mr. SMITH. Mr. Robb——

Mr. ROBB. No. I agree with that, and that, I think, was a point from my friend, the historian, Martin Van Grebald. He has written about that extensively. I agree with that.

I think the big problem with China is not that it would be a peer competitor, it is that it rests on a very thin measure of legitimacy, its ability to deliver growth—economic growth—to its middle class. And now that is gone. Mercantless powers like China are getting hit—they are getting devastated by this depressionary environment. And that fear we should have relative to China is that they will fall apart in a disorderly way, and that is all small group stuff, for the most part—small group warfare.

Mr. SMITH. Absolutely.

Mr. Dreifus.

Mr. DREIFUS. Thank you, Mr. Chairman. I agree with my colleagues here on the panel. It is not just China falling apart. It is Russia falling apart. How close are we to that trip wire where we see Russia unwind?

And quite frankly, the point about looking at the kinds of weapons we have, I think you have to look at the entire portfolio and say, "What is it that we are going to need in this new era, this new age of warfare," and saying, "Are any of these things the kinds of weapons we need?"

Because if they are not, then what are they and what are they going to be to better defend this country? And quite frankly, if it is a 15-year business cycle to get them into place, the current construct and model isn't going to get us there fast enough.

Mr. SMITH. Absolutely. Thank you very much.

I have more questions, but I will do those in a second round. And we will call on Mr. Miller.

Mr. MILLER. Thank you, Mr. Chairman. And thank you for your indulgence; apologize, again, for having to depart a few minutes ago.

Mr. Alexander, would you say that the United States should completely ignore near-peer conventional capabilities?

Mr. ALEXANDER. Should we completely ignore what, sir?

Mr. MILLER. Near-peer conventional capabilities.

Mr. ALEXANDER. I don't understand the term "near-peer."

Mr. MILLER. The identical capabilities that our peers may have.

Mr. ALEXANDER. In other words, they have equal weapons to our own?

We do not have to fight an enemy with equal weapons, because there are no countries with equal weapons to ours in the first place. And the likelihood of China, for example, developing these weapons is nil. Russia is in the process of upgrading its military, but it is nowhere close to being peer to the United States.

So I don't see there is any possibility of there being any near-peer confrontation. And what I said just a moment ago is that we can't fight them anyway. There is no possibility of our fighting these countries because if we lose—we found this out in the 1962 Cuban Missile Crisis—if we find ourselves in a position of losing

to a conventional power we will always use the atomic weapon. And the same would apply to Russia and to China.

So for that reason, it is impossible. So it is an illusion to think that we will ever be able to fight another country on conventional warfare. Conventional warfare can no longer be fought for that very reason.

Mr. MILLER. Thank you. Any other comments?

Sir.

Mr. DREIFUS. At the risk of being controversial or unconventional in thinking, when you talk about near-peer you are talking about, you know, like weapons. What happens in the case where they are using un-like weapons, and those are weapons that may cost hundreds of thousands of dollars, or $50 million, or use Federal Express as their delivery infrastructure for a biochemical or some other attack of our nation?

Those types asymmetric attacks, I don't think that we are even in the same league of thinking about in peer-to-peer kinds of combat. And that creates a different kind of thought process as you look at trying to defend against these new kinds of threats. It is not the big countries that necessarily are going to be the problems; it might be organizations that aren't even a country that are going to create the new challenges that face us.

Mr. MILLER. Thank you, Mr. Chairman, and I will yield back.

Mr. SMITH. Thank you.

Mr. Marshall.

Mr. MARSHALL. If I might, Mr. Chairman, I thought that the title of this hearing was intriguing and certainly wanted to come down and read the materials and listen to the witnesses. I was wondering how the panel was gathered and the purpose of the hearing. Was it to hear truly unconventional thoughts about how we ought to organize ourselves?

Mr. SMITH. Yes. These are people who look at the future of warfare, not the present, and the premise of the hearing, basically, is that we are in a transitional moment in terms of, you know, where we are going in terms of our military threats, but we are still, to some degree, stuck in the past, focused on a conventional, you know, peer-to-peer war that many of our weapons systems and many of the ways that the DOD has organized is around that philosophy, and that we need to change that philosophy.

It is of particular interest to this committee because, well, we have jurisdiction of the Special Operations Command (SOCOM), which does a fair amount of unconventional warfare, but we also have jurisdiction on cyber-security, I.T., and science and technology and the future of where the military needs to go. So since we know—I think; there are those who disagree—but since we know that we are not going to be where we were, where are we going to be and how do we need to equip our military to confront those threats? That is the main purpose of having folks who have studied those areas.

Mr. MARSHALL. Thank you for that clarification.

Now, I guess I would ask whether or not the panel is aware of people who purport to have expertise like you have who have a difference of opinion concerning how we ought to organize ourselves for future combat. In other words, are there people, Mr. Alexander,

who differ with your view about appropriate resource allocation and preparation for—realistic preparation for the conflicts this country might have?

Mr. ALEXANDER. In other words, are there other people—specialists in this field—who differ from this position?

Mr. MARSHALL. Yes, sir.

Mr. ALEXANDER. I don't know of any, sir. I mean, it strikes me, we are dealing with a set of facts. And the set of facts are that the wars that we are fighting now are not going to be the wars that we fought in the 20th century. We cannot fight those wars any longer.

Therefore, the set of facts that we are facing are pretty elementary. There are no arguments, as far as I can see, with any of us as regards what we face. The question is, how do we restructure the military in order to do it?

Mr. MARSHALL. So you see no likelihood of a Desert Storm-type of conventional fight—it was brief, but you see no likelihood of that?

Mr. ALEXANDER. We haven't fought a conventional war since Korea. The United States has not fought a conventional war since Korea. All the wars that we have fought since Korea have been unconventional wars, and we fought an asymmetrical enemy—every single one of them.

And we are trying to fight these wars, still, with a structure that was based around the World War II, Korean War paradigm, and that is not the way we can fight these wars. And the point I guess I am trying to make is that we have not been doing that for over half a century.

Mr. MARSHALL. So you see no possibility of conflict—military conflict—with China. You think that if there is a conflict, that it will be surrogates?

Mr. ALEXANDER. It would have to be surrogates, yes, sir. We fought—and I was in the Korean War. I spent a year and a half in Korea, and I am quite familiar with the Chinese. And we fought a conventional war against the Chinese. We actually lost that war.

The reason we lost it was because we were fighting with our conventional weapons and they were fighting us with unconventional weapons, and we basically sacrificed our air power and our artillery, which was superior, to their bunkers, which were superior to our artillery. So we were fighting, essentially, an unconventional war even then.

But the fact is that as far as I can see, there is no possibility whatsoever of us ever fighting a war with China because once we ever get into a conventional war with another country—that is assuming that there are such armies that exist, and they do not—but if they ever did exist, then we would instantly enter into a stalemate, and the stalemate would end any possibility. And what would then happen, if one side then became ahead, then the other side would elect for an atomic bomb.

And that is why we can never fight that war. And anybody who is looked at the military knows that this is absolutely the facts. There is no argument as far as I can see in anybody—any of my peers—who contest that argument whatsoever. We have had mutually assured destruction since 1962.

Mr. MARSHALL. So if there is going to be a fight, you know, by surrogates.

Mr. ALEXANDER. Yes, sir.

Mr. MARSHALL. Can you give an example of what that might be?

Mr. ALEXANDER. Well, we had one in Georgia just the other day, didn't we? We had a case where Georgia was trying to oust Russia from the territory that they had occupied in Georgia. Now, they attacked—they tried to do it in a direct, conventional way and they got socked in their nose, like quick, and their army disintegrated in no time at all.

Mr. MARSHALL. Mr. Chairman, are you going to let me go on, or do you want to just hold——

Mr. SMITH. I think I would like to keep it to five minutes so we can get to everyone. We will come back through.

And if I may, just in following up on your question, there is considerable disagreement about what the implications of all of these changes mean, and I think these four gentlemen in their opening statements certainly had differences about where we should go, how we should restructure the military in light of the changes.

What I think—and I agree with Mr. Alexander—what there is no dispute about is that asymmetrical warfare has become vastly more important than it was, and conventional warfare vastly less important, and how do we change and restructure?

And there is a lot of difference of opinions on this committee and elsewhere about that, and that is what we are trying to get to.

I think Mr. Thornberry is next.

Mr. THORNBERRY. Thank you, Mr. Chairman.

I appreciate you all's indulgence as we come and go because of votes. But let me ask this: I have heard from a number of people that essentially great power warfare is obsolete because of nuclear weapons. Does that mean that, given back to some of what is in the news today, if our nuclear deterrent is reduced to a certain level, does that put great power warfare back on the table, or is there a threshold that we need to maintain to kind of keep that tamped down, I guess, for lack of a better way to put it?

Mr. HARTUNG. Well, I would say we have quite a ways to go before we would reach that point. A lot of people who have supported President Obama's call for a long-term effort to get rid of nuclear weapons have talked about something like 1,000 weapons, maybe 600 deployed, 400 in reserve, which would be more than enough to deter any country from thinking of attacking us.

I think where you get into a problem is if you are going to want to eliminate nuclear weapons all together, what kind of political arrangements, what kind of security arrangements, what kind of verification arrangements would you need to assure yourself that that would be workable? So I think that is a question for down the road; not that we shouldn't think about it now if we are going to—if these things are going to be on the table, but I think in the foreseeable future our deterrent will be there even in the context of the kind of reductions that President Obama and Mr. Medvedev may come to in the next couple years.

Mr. THORNBERRY. Let me ask you, Mr. Robb, because I read your book a year or two ago and enjoyed it, but it makes me think—when I listen or read some of you all's testimony, it makes me won-

der which is the cart and which is the horse, in a way. Because we talk a lot about, "Well, we don't need the F–22 or this that or the other system," but as one person described it in another hearing about a month ago, we seem to buy stuff and then formulate a strategy from it rather than formulate a strategy and then buy stuff that fits within that strategy.

But I just talked to a father yesterday who was darn glad we had some armored vehicles in Iraq, even though that was a counter-insurgency, because it meant his son had his ankles damaged rather than have his, you know, legs blown off. Help me a little bit here. Given what you know about our system—we are not really changing the system if we say, "Cut that airplane and that Army vehicle," are we? Don't we have to start at this from the beginning? And where is that?

Mr. ROBB. Well, personally, I am very much the cynic and I am certainly outside the system as you can be. I mean, I am starting companies in the tech sector, so——

I personally don't think the system can be reformed, given its size, and the amount of money being spent, and the number of people involved. I had a couple brushes with the contracting space, and it is byzantine and tremendously, you know, awful. I couldn't see it actually working in the real commercial sector, but—and that being said, and I am not trying to be obtuse here, but you know, if there is a downdraft in the economy and we do go towards a depressionary environment, the amount of budget cuts that will inevitably follow may open opportunity to relook at how we are structured.

You know, I would like to see, obviously, strategy driving weapons procurement, and you know, I have looked around the DOD for, you know, where strategy is actually, you know, trying to be developed, and I can't find much. We don't really have much of a, you know, a think tank for military theory. We have bits and pieces of strategy being done in a variety of different locations, and I haven't found a place that really does high-quality military theory.

So I don't know if that is not—maybe it is not the answer you are looking for, or it is just——

Mr. THORNBERRY. Oh, I am not looking. I mean, I am just looking at answers.

Mr. Dreifus, do you have something?

Mr. DREIFUS. Thank you, sir. There are two points that I think are appropriate here to suggest. One is that the defense enterprise, as it is constructed today, is configured as an output-driven model—how many of this and at what rate of production?—as opposed to an outcome-driven model. And if you look at outcome, which is more of a business approach to how you solve problems—where do I want to end up and how do I get there the most efficient way—it is a very different type of engagement model.

So the metrics that are used and applied in the convening of the defense approach, which is, as Mr. Robb also pointed out, a very tactical approach and not a strategic approach, puts us at an absolute disadvantage.

And so what has to happen is, the culture that drives this way of doing business needs to be rethought, and rethought in a very

dynamic way that says, "If we really want to figure out where it is we want to go," if Dr. Alexander's position that we will never fight these kinds of wars again is where we are going to end up, it is having almost a Solarium-like rethink of this country's defense concept, and then how do we get there through very discreet and very actionable steps.

Mr. ALEXANDER. May I say something?

Mr. SMITH. Quickly, if I may. Sir, if I may, if you would do it quickly, I want to—we have got the five-minute rule——

Mr. ALEXANDER. I believe exactly what Mr. Dreifus says is absolutely correct. What I think we need to see is the reality that it is not the equipment that we are concerned about, it is the kind of wars we are going to fight that we are concerned about. I don't know that anybody at this table, and certainly myself, is talking about doing away with any of these weapons.

I want to point out, to me the important factor is that we are not going to fight the same kind of wars that we fought before, and we need to organize our military in such a way. Now, your young man that you were talking about in Afghanistan who wants an armored vehicle—I think it is an absolutely valid—I entirely agree with him. He should have that.

But that doesn't mean that we have to organize our military around protecting a young man in Iraq or Afghanistan; we have to figure out how we are going to structure our military to fight the future kind of challenges we face. And that, to me, is the great distinction.

Thank you.

Mr. SMITH. Thank you very much.

Mr. Ellsworth.

Mr. ELLSWORTH. Mr. Chairman, sorry for being late. I am going to pass at this time.

Mr. SMITH. Mr. Conaway.

Mr. CONAWAY. Thank you, gentlemen.

If I could take interest in your comments, given that what we fought in Iraq, what we are fighting in Afghanistan, what would appear to be, over the relatively—future here is fights where it is conducted in and amongst noncombatants, civilian populations, where the government doesn't have a great deal of reach and you need an exquisite combination of State Department and, you know, nation-building, for lack of a better phrase, as well as the fighters and the folks who protect them. We don't have a good model to make that work.

The president's new plan says he is going to send hundreds of State Department people into Afghanistan. I suspect that is going to be at the point of a gun. But how do we—can you configure a military-State Department force that can do what needs to be done with the bad guys and also do what needs to be done with the good guys, and not offend the good guys while you are getting the bad guys, if that makes any sense?

Mr. ROBB. One thing that I have found that is getting a lot of traction, at least mentally, among people who are doing development and stability operations is this idea of a resilient community focusing on the hyper-local, trying to build a community such that

can produce most of its food, energy, and you know, defense within the confines of the community.

Mr. CONAWAY. Yes. That is what we all want to do, but who does that? Is it a hybrid entity that would do that? Who does that?

Mr. ROBB. Probably it would end up being a hybrid entity. There is lots of great tech; there is lots of great methodologies that need to be brought together to be able to do that. And the boots on the ground actually dealing at that hyper-local level need to get more training and support in terms of being able to operate in a solo, you know, difficult decision-making environment.

Go ahead.

Mr. ALEXANDER. The point that I don't think has been made very clearly here is that there is a total distinction between winning a battle or a campaign by military forces and the kind of operation to bring peace, or whatever you call it, after that. And we got very confused in Iraq on that, and there are two different kinds of problems that we face.

The military problem is relatively simple; I think we know what we have got to do in order to defeat an enemy, and we have got the system now working, and I believe it is going to come. The question that you seem to be asking is, what do we do with that country after we have essentially conquered it, or taken it over? Well, that is a political——

Mr. CONAWAY. Let me disagree with you, Mr. Alexander. I mean, we are going to have that issue exactly in Afghanistan. We can't bifurcate the two; we can't wait till we have wiped out the Taliban and al Qa'ida and then start, you know, helping these provinces rebuild themselves. You have got to do that concurrent.

Mr. ALEXANDER. You have to do it concurrently.

Mr. CONAWAY. And you have got folks who aren't real good at toting weapons who need to be the——

Mr. ALEXANDER. I entirely agree with you, and we have to make a decision what we are going to do in every single case, don't we?

Mr. CONAWAY. Right.

Mr. ALEXANDER. In the case, for example, of Afghanistan, are we going to build a nation or are we going to take down the Taliban and al Qa'ida? That is the question that we need to make a decision on as a nation——

Mr. CONAWAY. Let Mr. Dreifus have a whack at it.

Mr. DREIFUS. Thank you, sir. I think what you are asking for is a type of engaged government person that doesn't exist yet. We are not looking for boots on the ground, per se. We might be looking for shoes on the ground, in some of these cases, where we are looking at generating sustained, enduring success in these provinces and these hyper-local scenarios. And that means fusing teams of military and non-military people who need to train together, equip together, and be given the skills to work together, which doesn't exist in this government.

We have economic officers in the Commerce Department; we have the Trade Development Agency; we have the United States Agency for International Development (USAID); we have alphabet letters of many different organizations, but when do you bring them together? How do you converge them?

Mr. CONAWAY. Exactly.

Mr. DREIFUS. And we need to teach and train that. And I think that is—it is not about warfighting; it is about peacemaking, and creating those enduring outcomes that are really measured by success in both military and, more importantly, non-military terms.

Mr. HARTUNG. Yeah, I would just say, I think we need to be modest in our goals. You know, I don't think we are going to make Afghanistan into some sort of model democracy. I think aiming for stability is already a pretty high bar, and within that it is clear to me that we need more civilian resources, but I think you are absolutely right, how we configure those, how they work together is—I think really hasn't been clearly laid out.

Mr. CONAWAY. I guess our point is, if we are looking 10 or 15 years down the road, we want to—do we want to build that capacity? And we are not going to have it in Afghanistan, because we are too far into the ruckus now to make that happen.

I guess if you could get the Peace Corps and the 101st Airborne to train together and deploy together we will be in great shape.

I yield back, Mr. Chairman.

Mr. SMITH. No, I think that is a very, you know, compelling point, and it gets to the resource issue. And following up a little bit on what Mr. Thornberry said, I mean, you could even go, I mean, up to the F–22 and you can sort of look at it and say, you know, within Afghanistan and Iraq and what we are doing right now, you know, what good is that?

But if we are looking at, you know, a future conflict with Iran or a future conflict with North Korea, they have surface-to-air missiles that could threaten air dominance, and we are able to do what we do—I mean, we just—we take air dominance completely for granted now, the idea that we wouldn't be able to fly a military plane anywhere we want within our military zones. It is just something that is, you know, totally assumed.

Future conflicts might have a different situation. And don't get me wrong, I am looking for places to save money, for all the reasons that Mr. Robb outlined. We just lost about $16 trillion, so we are a little short at the moment, you know, but I think we also have to be mindful of what the challenges are out there, and it is not as simple as saying, "Well, we are no longer fighting a conventional war so we no longer need conventional weapons."

And I understand, Mr. Alexander, that it is not your point. But I think it is worth making, that we still have to, you know, make that consideration, which bleeds into what Mr. Conaway was talking about. Which was, okay, if we are still in a situation where it is conceivable that we are going to need a top-of-the-line fighter for air dominance, that we are going to need, you know, the Stryker vehicles, for instance, that have given our brigades—combat brigades—far greater capabilities than they have ever had before, we are going to need all that stuff. And oh, by the way, we are also going to need to build the 101st Airborne-Peace Corps. I think we will let you take ownership of that, and we will generate that unit.

You know, but it is on point. I mean, it is something that, you know, when we went into Iraq and there was, you know, the argument about, you know, we just spent an election campaign talking about how we are not going to do nation-building, we are not going

to do peacekeeping, and Mr. Rumsfeld was very pointed about saying, "That is not what we do; that is not our mission," all right?

Then we got into Iraq and he wanted complete control over that mission with his military that wasn't trained to do that and didn't do that. And I don't think, ideally, anybody who spends any time around the military would say, "That is what we ought to train our military to do." I mean, they are going to have to do pieces of it, but I think if you are looking at the classic nation-building peacekeeping mission, you are talking far more, you know, development people, State Department people, justice people, agriculture people stuff military doesn't do, but then you are talking about a hell of a lot of money. I mean, our military is incredibly capable right now, but it is incredibly expensive.

So if all those other entities that I just mentioned have to be close to as capable, we don't have that kind of cash, which is a very long way of walking around, if we are looking to save money—looking to save right now, and not just limiting it to the Defense Department—if we are talking about—for all the different pieces, what is the most cost-effective way to do this—with one final point—admitting that one of the most cost-effective ways to do this is to get out of the business of doing it, is to find a way where we don't believe that our national security is completely dependent upon showing up in the middle of some godforsaken country and taking it over and being responsible for it for the next 50 years.

How do we make all of that come together? Mr. Dreifus, I will——

Mr. DREIFUS. Yes, sir. Thank you, Mr. Chairman.

There are two points I think you could use here very constructively. First is, you have got one other weapon in the arsenal, and that is American industry and industries in the region where you are working. Economic security is one of those legs of this challenge, and to bring business along with that provides an enduring outcome in that country is something which doesn't cost the government anything and can create a long-term better future. Again, what are they looking for in these countries? That there is hope, there is stability, there is a better future for them, and a better outcome.

The second point that I think is important is understanding how to prevent having to go into these places, to detect early, before a country or a part of the world gets into trouble, and having other types of interventions. And so prevention is a lot less expensive than the cure.

Mr. SMITH. Amen to that. And I will just say that I think those are a couple areas that we have this—I mean, as much as, you know, the counterinsurgency stuff at the Special Operations Command (SOCOM) does in areas before they blow into full-scale—I can't say that word, so I won't—conflagration—I always get the syllables mixed up there. We have got SOCOM out there doing it, and a couple dozen of them, you know, can make a huge difference in a country, as opposed to having 175,000 troops in Iraq.

Connected to that is something that I am very concerned about our government right now: We don't really have a global development strategy. We spend an enormous amount of money on global

development in a variety of different ways, but it is in a very chaotic, nonstrategic way that is ineffective.

If we did that better—to some degree that is one of the thoughts behind the Millennium Challenge Corporation, is that it would go in and work with the country to try to not just give them money, but to go in and try to help them develop an overall, you know, development strategy to keep their country from falling apart for a relatively small amount of money.

Mr. Miller? Okay.

Mr. Marshall, we are back to you already.

Mr. MARSHALL. That didn't take too long. All right, back to the surrogate question, and you picked Georgia as an example—pretty remote; we didn't get involved. Can you imagine a surrogate fight where we might be involved and, for example, we have already mentioned this, would be very interested in providing air dominance for our surrogates on the ground or for our forces on the ground?

Mr. Alexander—Dr. Alexander.

Well, I asked you during my last line of questioning to imagine surrogate fights of the future, since you have decided we are not going to have a fight with China directly because of the problem with nuclear weapons.

And the surrogate fight in the future that you mentioned in your testimony and you mentioned a minute ago was Georgia. We didn't get involved in that. Let us assume we do get involved in a surrogate fight in the future. We are going to want to have air dominance; we are going to want to put our people on the ground and be able to protect them.

You describe a world in which military units are not going to be able mass because precision weaponry will simply destroy that unit if it masses. So we are going to want a world in which nobody can use precision weaponry against us—we are effectively able to stop the precision weaponry, we are the only ones with the precision weaponry. Is that a world that is too far?

Mr. ALEXANDER. Well, I don't see that we would be the only ones with precision weaponry. I think that the rest of the world can develop precision weaponry just as well as we.

Mr. MARSHALL. And we won't be able to develop counter measures?

Mr. ALEXANDER. Could they develop counter measures or could we?

Mr. MARSHALL. We have attempted as best we can to maintain our technological edge because we are not going back to Industrial Age warfare, and if we did there is no way we are just going to throw hundreds of thousands of American young men and women into harm's way and just lose all kinds of—we are just not going to do that, and we know we are not going to do that.

So we attempt, as best we can, to maintain significant technological advantage over our enemies, and that includes both the ability to hit and strike and the ability to develop counter measures that keep them from being able to hit and strike us in return, which means we spend a lot of money on things like the F–22, et cetera, with the idea that we will be able to maintain that capacity.

Mr. ALEXANDER. I don't think the F–22 would necessarily affect that. What we are going to have to do in terms of defending against a technologically advanced country that might want to attack us, we want to develop a weapon that will do that. Well, the F–22 Raptor is a fighter plane, and it has a tremendously effective role as a fighter plane if you are fighting other countries that have fighter planes or have targets that a fighter plane could strike.

If you are talking about the surrogate situation that you mentioned—let us take a case that we do know about——

Mr. MARSHALL. If I could interrupt—now, it seems to me that Russia and China are going to continue to develop—they are continuing to develop their own fighters, which will be available to their surrogates, and so if we sit back and do not develop, the next generation of American fighters that have a technological edge over the next generation of Chinese or Russian fighters, we are essentially conceding air dominance to whoever the surrogate is representing those two countries. Is that not correct?

Mr. ALEXANDER. If we assume that we will be fighting using those kind of aircraft. I don't believe——

Mr. MARSHALL. We are assuming that air dominance is something that we are interested in. You have posited the possibility that if we get into a fight with one of those superpowers, those who could conceivably contest our air dominance, it will be through surrogates. They will want to provide air dominance for their surrogates. That is a no-brainer, it seems to me.

And so we are in this posture of trying to anticipate the ways in which they will seek to support their surrogates in combat against our surrogates, I guess——

Mr. ALEXANDER. I suspect that if we get a situation like that, that the aircraft that they will be using against us will be UAVs, not a F–22. And I suspect that the—for a number of reasons. One reason is it is a whole lot cheaper, and the other is that it is a lot more effective.

So the idea that an extremely advanced fighter plane is going to be the wave of the future, I don't think that is correct. I think the wave of the future is a Predator.

Mr. MARSHALL. So we are on the same page, in the sense that we can anticipate the need, whether it is by developing some other platform besides the F–22—maybe an unmanned platform—we can anticipate the need to continue technological development that assures our air dominance.

Mr. ALEXANDER. Yes, sir. I think we definitely have to do that. And I think we should always try to be the extreme top nation in the world in terms of technology. We have it now and I think we need to keep it. But the weapons that we are going to do it with are not the weapons that we have today.

Mr. HARTUNG. Well, I would just add——

Mr. SMITH. Oh, I am sorry.

Mr. HARTUNG [continuing]. To the extent that there is surrogate warfare, it is going to be asymmetric. It is going to be guerilla warfare, it is going to be trying to get ahold of weapons of mass destruction. I don't think it is going to be kind of air force-on-air force and army-on-army, so I think some of these capabilities will be less relevant than they might have been in a different time period.

Mr. SMITH. Mr. Marshall has a quick——

Mr. MARSHALL. I appreciate that. It is somewhat similar to what we are facing now in Pakistan and Afghanistan. And we have decided that—I think rightly so—our objective is to deny al Qa'ida the space to sort of gather and develop its capacity to continue to do damage against the West. And in order to do that, air dominance is something that is critically important to us. I mean, you just can not survive in those territories without air dominance.

So we can argue about whether the F–22 or some other platform is the correct choice, but we are going to have to concede that at least for the near term, we have got to spend a lot of money on air dominance. Wouldn't you agree?

Mr. HARTUNG. Well, I don't know who we are dominating. I mean, the Taliban doesn't have an air force, Afghanistan doesn't have an air force——

Mr. MARSHALL. If I could, I am going to—let me interrupt. You are right. They don't. The point is, if we don't have air dominance, we are in trouble. And it is conceivable that in a different setting, in a different part of the world, with a different relationship, we could have a surrogate of one of these superpowers that is providing air strength, and we don't have air dominance, in which case we are not going to be able to go in there or stay there very long.

Mr. SMITH. I am sorry. You are going to have to give like a 15-second rebuttal, and then I have got to move on.

Mr. HARTUNG. I think to the extent that we need that we should do it at $350 million a plane. I guess that is what I was saying.

Mr. SMITH. Okay.

Mr. Thornberry.

Mr. THORNBERRY. Mr. Dreifus, let me go back to where I think we left off—you all have to be a little flexible as we walk back and forth. As I understand it, it would be nice to have a strategy that would inform our acquisition and so forth, and I think you are last comment was, it requires a cultural change in order to achieve that.

We hear that a lot, by the way, in not just the Department of Defense, but in other departments and agencies too. The first question is, okay, what do we put on our to-do list to create a cultural change?

Secondly, this subcommittee had a hearing a couple weeks ago where it was suggested that a good—talking back about putting strategy first—a good model goes back to the—we ought to consider back to the Eisenhower days where his National Security Council (NSC) had a small number of people who did try to provide a strategic guideline at that overarching level, and then a separate group was focused on implementing.

Can that help, not just with culturally, but provide that strategic framework that other things operate? Or do you have other suggestions?

Mr. DREIFUS. Thank you, sir. Let me answer the second question first, and that my help set the change in culture.

First, it is a function of leadership. And if you look at some famous examples, Harvard case studies and so forth, of businesses that had to shift the way they did business, their whole funda-

mental model, either because their markets were ending or their business was in trouble, they had to change the way the did it.

And they did it through leadership, and the leadership had to understand the value of corporate culture or organization, and using that as a tool to how to innovate that workforce. But that leadership has to have a strategy first.

What President Eisenhower did in trying to grasp what the new threats were facing the country in the 1950s was to get that small group of people in the Solarium at the White House and put them to work and look at courses of action. I would argue that in this age that moves a lot faster than we do in the 1950s, that is something that needs to be a little bit more continuous and not something we do every 60 or 70 years.

And so, reconvening a Solarium, or another name for a similar effort, with the leadership, but doing it now and doing it in a sustained way—again, keeping it small and keeping it focused on, what are the battles to come and where do we want to end up—will then drive the shift in the way in which we are going to engage. And some of the points that are made here about the types of wars we are going to fight, the types of tools we are going to use to fight those wars—where we are losing on the high ground, I think it is especially important, such as in the cyberspace, where we are not addressing with nearly the same level of veracity of investment, that is where the enemies will come. They will never attack us at our strengths; they will always exploit our weaknesses, just as we exploit theirs.

So the first thing I would suggest is to empanel a Solarium-style effort. And I think that encompasses both the legislative and the executive branch in bringing the best minds to the table from wherever they come from. And then from there, that then becomes your beginning part of a new discussion about how you change the culture.

And the culture comes down to the people that you put into those positions. The selection of the types of candidates that go into those offices and the job description and the objectives that you assign them, either by legislation or that comes out of the Solarium II, or whatever strategy effort or a combination of both.

Mr. SMITH. Thank you.

Mr. Ellsworth.

Mr. ELLSWORTH. Thank you, Mr. Chairman.

I think my question will be for Mr. Robb. Mr. Robb, kind of following up on what we have been talking about, about the new kind of war with the State Department employees and the soldiers both—I was in a hearing, I am not sure if it was this subcommittee or another, that I was a little bit taken aback by some comments about the Iraqi people wanted more say in regard to the provincial reconstruction teams and wanted more input into what we were doing to help them out.

I guess, like I said, I was taken aback that—are we over there building things that they don't want, don't need, just for the sake of building those?

And I don't know if we have discussed that today yet, but like I said, it sure seems like that is something we would do is ask them—first things I think of are food, water, medicine, and shelter,

and after that it is—we talk about prisons without other legs on the stool, when we don't have a court system or judges, and I guess—what are we—are we just over there deciding what we want to build? And maybe that is your area of expertise, and if you could explore that a little bit.

Mr. ROBB. Well, I have seen it, and I have analyzed it, and frankly, you know, going in at the high level typically doesn't work. Building high-level infrastructure has a horrible, horrible track record across the board. And if the projects don't, you know, fall apart naturally through mismanagement, all the money is whisked away in corruption.

I saw that recently with decorations of Senator Clinton in regards to the reconstruction of Afghanistan and the $7 billion we spent there. And then also, these high-level teams typically end up being the target of attacks, like Contract International was a classic example back in 2005, where 60 percent of the budget went to security because they were being attacked on an ongoing basis.

The way around that, and whether you are looking at counter-insurgency operations where you subdivide the country into inkblots, or you are doing stability operations, or you are doing development, is that the macro-level in a nation state typically doesn't work, and that its service delivery and its political goods delivery is very, very weak. The best way to fix the problem and get control of it is to start at the local and going towards the resilient community and getting organic growth of communities that can actually get things done across the board. And getting those technologies together and getting those methodologies together, being able to do that, you can go in and create centers of organic order.

And you combine that in most of our instances where we are actually winning conflicts on the ground in unstable areas—winning, quotation marks—is that we are not actually defeating those forces in military means or even through development, we are cutting deals with militias, which are another centers of organic order. And our ability to manage those militias, manage those groups on the ground is pretty weak.

I mean, I suggested in the paper that we look at maybe taking a customer relation management system from the private sector, you know, the same sales management system that people use at IBM or whatever, just to maintain contact, you know—what did you say to this, you know, this tribal chieftain or this person, you know, who is rising in the ranks in this or that militia so we have some kind of institutional memory, and, you know, take salesforce.com and six-month convert it, it is really short dollars.

But we are maintaining this kind of management of, you know, 500, 600 militias inside of Iraq, and we are going to do the same thing in Afghanistan, and we are hoping to do the same thing in, say, in Pakistan, with the Frontier Corps and judicial militias. Talk about anti-Somali piracy, it is probably going to be coming down to, you know, hiring our own local militias to—not probably through U.S. dollars—Saudi dollars, Chinese dollars to go in and take the pirates up.

But that is how you end up winning, and it is that management of the local. Does that help?

Mr. ELLSWORTH. I think sometimes it seems like we build—like the Hogan's Alley down the road at the FBI Academy, we are over there doing this, it looks nice, and it is the shell, but there is nothing really behind the walls. And that is a huge waste of our money. And I am sure the Iraqi people—and in the future, Afghanistan or Pakistanis—would resent us for that kind of interference and/or a that kind of help.

Mr. ROBB. Well, they also resent the guy who is in the Capitol. You know, they are supposed brethren and the like. So if you can bypass the big companies that want a big contract to do the big project in—you know, the U.S. companies, outlet companies that want to do those—and go straight to the local with that package of technology and methodology and practice.

I mean, you know, you can grow food faster and better, you can produce cleaner water, and on the cheap now—a lot of great innovation. The technology to do things in a super-powered way is amazing, even in the developing situations. But there is really not much other infrastructure.

Mr. ELLSWORTH. Okay. Thank you.

Thank you, Mr. Chair.

Mr. SMITH. Thank you.

Mr. Conaway? Okay.

Does anybody else have anything to follow up on?

I guess I have one question, applying specifically to a lot of the stuff you are talking about, to what we are doing in Afghanistan. And, you know, any of you who want to comment on sort of, you know, here is a smart approach, here is the not-so-smart approach, here is how we can sort of restructure our military, restructure our approach there—how is Afghanistan an example of whether we are or are not learning some of the lessons that you all are talking about here?

Anybody want to take a stab at that?

Mr. HARTUNG. Well, I think it is way too early to tell. I mean, the fact that it has been going on longer than the Iraq War indicates that we have a lot of learning to do. And I am glad to hear the president maybe lowering the bar a little bit about what our objectives are. I am glad we are not viewing it as a, you know, primarily mission, that there is going to be other resources.

But I think, as has been raised by some of the other members, it isn't really clear that we have a detailed strategy of how that is going to work. We don't even have a, you know, a good structure within the government of how to decide which threats are most important. Is it traditional military threats? Is it terrorists getting hold of a nuclear weapon? Is it HIV/AIDS? Is it climate change?

And to some degree, the military has taken on looking at all of those things because there is not an alternative structure across the government to look at them. So I think Afghanistan is still kind of a work in progress, and because, as was mentioned, we are already deep into it, I think it is going to be challenging to kind of change strategy and approach in the midst of the conflict.

Mr. SMITH. Anybody else——

Mr. Robb.

Mr. ROBB. Yes. Personally, I would like us to leave. I don't think it is a winnable situation. You can take out terrorist camps from

afar, you know, through Special Ops. You can work and buy local militias.

A problem even in Iraq now, because our attention is off the ball, is that our agreement with the militias where we bought them, which is a fundamental break with counterinsurgency doctrine, because that says that everything you do in the country is towards enhancing the legitimacy of the host state—by cutting deals with people that aren't loyal to the host state, we broke with doctrine. So if we don't—part of that deal with those folks in Iraq, the Sons of Iraq, Anbar Awakening, whatever you want to call it, was that we would protect them from the Shia who were winning the civil war 2 years ago, which drove them to the bargaining table with us, and we would arm them.

And we are still arming them, but the pay isn't coming, and now that we are withdrawing from areas, they are vulnerable again to attack. So we could be back into the soup again with that, you know, in another couple months; it could go really quick. I mean, those guys were guerillas just before we cut those deals.

Mr. DREIFUS. I agree that we are—it is too early to tell in Afghanistan. However, I think that Einstein defined insanity as trying to do things the same and hoping for a different result when you repeat it, and what we may want to look at is using this as a strategic opportunity to think about how we engage this new type of fight with a new type of answer.

And part of that goes to perhaps looking beyond the traditional, just asking the question of defense in the Defense Committee, but perhaps bringing more people to the table, and perhaps even forcing the issue of looking at it in a holistic way and asking other agencies to all get together in a unified way, explain to the Congress and likewise to their own strategic approach how they would go about solving the problem together.

I see the point about maybe it is the Peace Corps training with the 101st Airborne as one extreme example, but it is bringing all the parts of the government together in order to solve a complex challenge.

Mr. SMITH. Thank you very much.

Mr. ALEXANDER. I agree with what Mr. Dreifus says.

I would like to make a point about Afghanistan: If I understand what Mr. Obama said just the other day, that he is going after the Taliban and he is going after al Qa'ida, wherever they happen to be, that strikes me as being an imminently sensible way of looking at the problem. Now, I know that there is some mission-building involved in this, and many people have been commenting on that, but if we are thinking as our main goal to get rid of the danger, wherever it happens to be, I think we will be a lot clearer thinking in terms of our solutions.

I understand the idea, and I agree entirely with the idea of putting the 101st Airborne with the State Department; it would be a great solution. But that is a decision we have to make as a nation.

The problem we face at the moment is how to take care of these great challenges that we have in a military point of view, and I think that Mr. Obama's approach, if I understand it correctly, is exactly the correct way to do it. Thank you.

Mr. SMITH. Thank you.

I think the challenge is—and I will close with this, and then if any other members have anything else—is that while I agree with both Mr. Robb and Mr. Alexander's sentiment that, you know, the idea—disrupt the networks that threaten us. That is what we want to do. That is simple, that is straightforward, and I think that is what the president articulated was the threat from this region is al Qa'ida and the Taliban that support them because they are developing, planning attacks against the West, and we want to disrupt them. And I get that.

The problem is, and I think where we go down the slippery slope of some of these more difficult issues that we have explored is, okay, if you pull back and just do that and the Taliban take over southern Afghanistan, and Karzai is a nightmare, he doesn't have the support, so they are back in charge of Afghanistan shortly thereafter.

And then if you want to spin the nightmare scenario out even further, you know, given, you know, the dysfunctional nature of the Pakistani government at the moment, it is not hard to believe that, you know, a Taliban-like group takes over there.

And while we are pulled out letting this happen, all of a sudden the job of disrupting those terrorist networks becomes a hell of a lot more difficult because they have real live state sponsors, and that opens up a whole new batch of problems. And that is why it is not quite as simple as just pulling back from the other responsibilities.

But I thank you very much for coming and testifying. I am glad that we have managed to avoid being interrupted by votes but the one time, and really appreciate your testimony.

Before I close it officially, Mr. Miller—I want to thank Mr. Miller, also. I was neglectful; I didn't do that.

Thank you for opening the committee in my absence. I apologize for that.

And thank you very much, and we will certainly stay in touch with all of you as we work these problems. And we are adjourned.

[Whereupon, at 4:55 p.m., the subcommittee was adjourned.]

A P P E N D I X

March 11, 2009

PREPARED STATEMENTS SUBMITTED FOR THE RECORD

MARCH 11, 2009

Terrorism, Unconventional Threats and Capabilities Subcommittee
Chairman Adam Smith
Hearing on the New Age of Irregular Warfare: Challenges and Opportunities

April 2, 2009

"Today, the Terrorism, Unconventional Threats and Capabilities Subcommittee will meet to discuss the concept of 'irregular warfare,' the types of threats our country faces now and in the future, and how we are equipped to counter those threats. I want to thank our witnesses for attending and lending their expertise to this important discussion. We welcome you and your thoughts.

"There is broad consensus that, while threats from states do still remain, the primary threats we face are transnational in nature – such as terrorism, WMD proliferation and economic instability.

"Many have expressed the concern, which I share, that our military and entire national security apparatus is not appropriately structured and resourced to effectively counter the irregular threats we face. Certainly there has been improvement in the years since 9/11, but by and large our national security institutions still maintain a Cold-War era posture.

"We must adapt our thinking and approach to meet these ever changing, irregular threats. I look forward to hearing from our distinguished panelists today about how we can reform our national security system to more squarely face the threats we face today and better prepare for the threats of the future. Again, I thank the witnesses for being with us today and look forward to discussing this important issue."

Mr. Miller Opening Statement for Hearing on "Terrorism and the New Age of Irregular Warfare: Challenges and Opportunities"

April 2, 2009

"We have realized a significant paradigm shift in our view of national security since entering the new millennium. This is not to say that we have not faced similar challenges before –we certainly experienced a number of conventional conflicts last century, from World War I to Desert Storm. Guerrilla warfare, insurgencies and counterinsurgencies pockmarked the globe from El Salvador to Zimbabwe to Mongolia. Terrorism frequented nightly news reports and the daily papers with hijackings, bombings, hostage taking and murders. While these challenges ran the spectrum of conflict, our national military strategy continued along Cold War lines of thinking, focusing on the need to respond to major conventional conflicts. Terrorism was treated as a law enforcement issue, and national security responsibilities remained fairly well delineated among agencies, with little cross over or communication.

"In the aftermath of 9/11, we began to see the shortcomings of our previous approach and realized the need to translate our national strategy into a whole of government effort that interconnects agencies that previously had significant barriers between them and jealously guarded turf. In Iraq and Afghanistan, our military adapted its tactics and strategy to operate in counter-insurgency environments and to work with other agencies in ways previously unseen. In facing al Qaeda, our ability to bring interagency capabilities together has proved extremely effective in disrupting the group's operations. The State Department has sought to become more expeditionary, while the military has moved to expand 'special operations'-like capabilities and leverage partner nation capabilities.

"We are increasingly cognizant of the asymmetric aspect of conflict today. In its September 2007 Joint Operating Concept for Irregular Warfare, the Department of Defense defined Irregular Warfare as 'a violent struggle among state and non-state actors for legitimacy and influence over the relevant populations' and further explained that that Irregular Warfare 'favors indirect and asymmetric approaches,' potentially in combination with more traditional military capabilities, to erode the opponent's power, influence and will.

"Conflict is about breaking the power and will of an adversary—be it a conventional opponent or a non-state actor—and we cannot limit our view of Irregular Warfare to violent groups like al-Qaeda. In Unrestricted Warfare, written before the 9/11 attacks, Chinese military authors Qiao Liang and Wang Xiangsui point to Desert Storm as showcasing the dominance of the United States on the conventional battlefield and the necessity for the use of unconventional approaches in the face of such overwhelming conventional capability as the U.S. possesses. In recent years, we have seen the use of 'unconventional' methods to counter conventional advantages—from using small, fast boats to swarm conventional naval vessels to combining cyber attacks with

military action. So we should not consider Irregular Warfare to be limited to insurgency, counterinsurgency, terrorism and counterterrorism.

"Ultimately, we are in a thinking man's game, or, as T.E. Lawrence put it, 'Irregular warfare is far more intellectual than a bayonet charge.' We cannot charge forward expecting to face a purely conventional threat on the battlefield. We will have to carefully balance investments in conventional and unconventional capabilities to meet the range of threats our nation faces. Secretary Gates said so much in his February article in Foreign Affairs. The challenge will be finding what that appropriate balance is. Today's hearing should provide us excellent food for thought as we wait to see how Secretary Gates' vision is articulated in the President's budget. I look forward to your testimony and your thoughts on how we best strike a balance in military investments and capabilities."

Statement of Bevin Alexander

Before the House Armed Services Subcommittee on Terrorism,

Unconventional Threats and Capability

On *Terrorism and the New Age of Irregular Warfare*

April 2, 2009

Winning Future Wars

How Weapons that Never Miss Have Eliminated Conventional Warfare

The United States military must not find itself in the position that the French and British armies found themselves in 1940. In the campaign in the West, the Allied commanders were trying to fight the same sort of static war along a heavily defended, continuous front that they had conducted successfully in World War I. But Germany was fighting an entirely new kind of war that broke through these fronts with fast-moving panzer or armored divisions. These panzers drove deep into the Allied rear, dissolved the continuous front, and created chaos. In six weeks Germany shattered France and threw Britain off the Continent at Dunkirk. This German victory was achieved by only four German corps, 164,000 men, less than 8 percent of the German army. They brought about the complete rout of the better-equipped and much more heavily armed Allied armies totaling 3,300,000 men. At the critical point where the victory was won, Sedan, France, fewer than 60,000 of

these men were present. Thus, the actual victory was achieved by about 3 percent of the German army.

We face an equally decisive turning point in warfare today, and our military structure must change to accommodate it.

Defense Secretary Robert M. Gates alluded to this fact when he told the Association of the United States Army on October 10, 2007, that wars like those in Iraq and Afghanistan "would remain the mainstay of the contemporary battlefield for some time." His message was a challenge *not* to treat the current conflicts as anomalies, and thus return to preparing for conventional combat, as the Army did after the Vietnam War.

The world has moved entirely away from orthodox or conventional warfare because the Global Positioning System or GPS permits weapons to be guided with complete accuracy to any point on earth. This has ended the possibility of concentrating military forces, because massed troops and weapons become targets that can be destroyed from afar. It has also eliminated traditional battlefields, because soldiers no longer can survive on them. GPS-delivered weapons have forced a profound movement to the other extreme of indirect warfare conducted by small, clandestine forces that avoid the enemy's main strength and aim at weakly defended targets or targets that are not defended at all.

Military forces no longer can be concentrated because they can be located by unmanned surveillance aircraft like the long-range Global Hawk and

the shorter-range Predator, and they can be destroyed by bombs or missiles dropped directly by GPS.

Inerrant weapons have obligated all military elements to disperse widely over the landscape. Dispersion has eliminated the Main Line of Resistance or MLR that was the central element of conventional warfare in the twentieth century. Although the Germans destroyed the Allies' MLR in the West in 1940, the continuous front reappeared in later campaigns when German armored power declined, and also defined the later stages of the Korean War. If armies were lined up along an MLR today, they could be destroyed by missiles launched from over the horizon.

Large armies no longer are possible, and conventional offensives along discernible paths—such as the spectacular drive across France by General George Patton's U.S. 3rd Army in 1944—can no longer be carried out. If any army today should attempt a movement on the order of Patton's, its spearheads could be destroyed almost as soon as they formed, and the offensive would collapse almost as soon as it began.

The absence of a defended front line has the added effect that all military elements can move at will in *any* direction. Military forces no longer have any front or rear, and they can attack any enemy force from any side and can also *be* attacked from any side. Since military forces can move on the ground and in the air, they have almost total fluidity, and they can strike anywhere within an entire theater of war. We see this today in Afghanistan, where the Taliban

and al Qaeda insurgents are able to conduct strikes all over the country, while at the same time American and NATO forces can pick and choose wherever they wish to hit the enemy.

This new pattern applies not only to conflicts in weak, non-nuclear countries, such as in Iraq and Afghanistan, but it also emphasizes a fact that became clear in the 1962 Cuban missile crisis. This crisis showed that nuclear powers cannot challenge each other directly, even with non-nuclear weapons. Any nuclear-armed nation threatened with destruction by conventional weapons would strike back with nuclear weapons. Faced with the threat of missile strikes from Cuba in 1962, the U.S. was prepared to go all the way to nuclear war with the Soviet Union. To avoid its own nuclear destruction, the Soviet Union backed down and removed its missiles. Because of this mutually assured destruction (MAD), warfare between nuclear-armed powers can never be more extensive than small-scale blows by surrogates to prevent or neutralize some unwanted action. The more direct and conventional that surrogate actions are the more they are likely to fail, however. For example, the effort by Georgia to halt the incursion of Russia into its territory by a direct challenge was stopped quickly by superior Russian military power in 2008.

Military elements today must be extremely small, extremely well-trained, extremely well-armed, and extremely mobile. The army must be subdivided into combat teams of only a couple dozen or so soldiers each. But these small units will be incredibly lethal—not only because the weapons they carry will be

powerful, but also because they can call in the most devastating missiles, rockets, or bombs to be delivered by air onto any target within seconds or minutes. However small these combat teams will be, they will possess the fire power and thus the effective strength of much larger conventional forces.

Warfare in the future will be waged by these small combat teams operating alone, but in coordination with other teams, all connected within a network of computers, radios, and television cameras that will provide instantaneous communications and quick delivery of bombs and missiles onto any target anywhere within a theater of war.

Military formations must be small because outfits larger than forty or fifty soldiers can be located by unmanned aerial vehicles and can be destroyed from afar by GPS-directed weapons. Even individual cannons and tanks can be spotted by Global Hawks, Predators and other surveillance methods. A force today must be so innocuous and so unobtrusive that it attracts no notice until it actually strikes.

Traditional military formations—the armies, corps, divisions, brigades, regiments, battalions, and companies of the twentieth century—are obsolete. Massed armies are now targets ripe for destruction, not marks of strength. And, because computer networks provide instant global communication, there is no need for the traditional military hierarchy of command. Since actions can be carried out much faster and over far greater distances than in the past, command decisions can be made quickly. And they often must be made

quickly because targets are normally fleeting. This eliminates the possibility of maintaining traditional military formations and hierarchies.

Conventional warfare for nearly four-hundred years was based on movements of large formations onto battlefields where they confronted the enemy in stand-up conflict. This form of warfare is not possible today. Armies no longer can be maneuvered as large units, and they no longer can be concentrated on a battlefield. If such were to happen, the army could be annihilated by missiles and bombs delivered from afar.

The model for warfare in the future will be indirect strikes. That is, blows will be delivered against undefended targets or targets that are ill-defended. Sending in a strike against a well-emplaced, expectant enemy force is an invitation to disaster—because a defending force, however small, can call in immense defensive weapons, provided it knows that the strike is coming. Successful warfare in the future will require that the enemy *not* know where the blow is coming, or he must be in a position where he cannot defend against it. For example, an enemy may be defending a series of supply depots, bases, and cities. But he cannot defend all cities, bases, and depots. Otherwise his strength would be so dissipated that he would be defending nothing. Therefore, undefended important places will exist, and they will be vulnerable. Warfare must aim at these vulnerable, unsuspecting targets, not focus on alert, well-defended targets.

In other words, an attack should avoid enemy *strength* and strike at enemy *weakness*. This indirect approach is the original form of warfare. The anthropologist Lawrence H. Keeley, in his book *War Before Civilization,* shows that surprise attacks, usually at night, on an unprepared enemy were the most common form of primitive warfare. It was successful because it avoided strength and struck at weakness. Indeed, guerrilla warfare is the *most* successful form of warfare for precisely this reason.

The conventional or primarily direct methods that have characterized warfare since the Thirty Years War (1618-48) are obsolete because armies—faced with being hit from afar by inerrant weapons—must disappear from view. The main characteristic of guerrilla or partisan warfare in the past was that soldiers were unobtrusive or nearly invisible. They did not emerge into view until they actually struck their targets. This must be the pattern of warfare in the foreseeable future. The new kind of warfare will repeat in a new form the old pattern of hidden, indirect, secretive attacks of our ancestors.

In preparing for the new form of war, we must learn the old pattern thoroughly. We have only scattered evidence of indirect warfare from the Stone Age. We have much stronger evidence from historical times. Alexander the Great suffered his only defeats from partisans in central Asia in 329 B.C. The Roman Quintus Fabius Maximus kept his forces scattered in the hills of southern Italy to defeat Hannibal's superior Carthaginian cavalry in 217 B.C. The Scots preserved their independence by following the "testament" of Robert

the Bruce (1274-1329). He recommended that the Scots abandon direct challenges to the English longbows and fight only among hills and morasses, retire to the woods rather than fortify castles, ravage open country in front of the advancing enemy, and confine their attacks to night surprises and ambushes. The Spaniards gave us the modern name for this form of conflict—guerrilla means "small war" in Spanish—when they successfully challenged Napoleon's armies from 1808 to 1814.

Modern practices of partisan warfare emerged in the American Civil War when John Singleton Mosby hobbled large parts of the Union army by his strikes in northern Virginia in 1863-65. The Boers of South Africa, using guerrilla tactics and employing only 15,000 men, throttled a British army of a quarter of a million men in 1900-02. T.E. Lawrence of Arabia led the Bedouins in a successful guerrilla war against the Turks in 1917-18. Mao Zedong developed highly effective partisan tactics in his war against the Chinese Nationalists under Chiang Kai-shek from 1928 to 1949. The Vietnam Wars 1945-75 were won by partisans against conventional forces.

The U.S. military today is still largely structured to face the conventional armies that existed in the twentieth century. We must return to our oldest and most successful form of conflict. The weapons of war have changed, but the principles of indirect warfare remain the same.

Prepared Statement

Henry N. Dreifus

Committee on Armed Services, United States House of Representatives

2 April 2009

"Becoming comfortable about being uncomfortable"

Chairman Smith, Congressman Miller, and distinguished members of the committee, it is an honor to offer the following observations and concepts for consideration and discussion in forging better ways to continuously improve the vision and outcome for our nation's defense.

The fundamental nature of what it means to deliver Defense has already changed, and will continue to evolve in the modern digital age at an accelerating pace. Military strategy has always sought the high ground in any situation to gain and sustain advantage. The only difference today is in the definition of "high ground." The world is now engaged in a new and highly leveraged non-state battle space; one that is increasingly asymmetric and virtual, rather than physical. The paradigm now must account for a "human terrain" versus the traditional "geographic terrain" and needs a new framework to solve this problem. Equally, this can also become a tremendous opportunity as a combat force multiplier. The existential non-state challenges include biological threats, rapid globalization of illegal drugs and smuggling, chemical attacks and cyber disruption – which can manifest in ways using our own infrastructures to disrupt our everyday lives and impact our freedom without firing a single shot.

Concomitantly we have entered an age of the war of ideas, propelled by a globalized ability to digitally connect and reach billions of people in milliseconds without regard to physical boundaries. The electronic subversion events in Estonia, and more recently in the Republic of Georgia are the new rule, not the exception. It is very possible and conceivable that we could wake up one morning and not be able to use or trust the web, email and many of the services we now take for granted. This is a next world war we must prevent.

Defense is only one of a broad spectrum of organizations charged with delivering national security's "public good" promise to our country. It plays an important role within a portfolio of tools and resources that spans beyond the traditional military and includes diplomacy, intelligence, education and global economic enfranchisement. Attention is now focused on post-conflict reconstruction and preventing nations from failing. These are also part of the new Defense paradigm - creating enduring successful outcomes, and preventing destabilizing conflicts.

Success will require developing new, agile and accretive ways to achieve long term holistic outcomes with especial focus on economic and self governance. It also requires efficiently applying a whole-of-government and even a whole-of-nation engagement – not solely Defense. Today's current national security engagement model is seamed; "bright lines" bisect different discrete organs responsible for different elements. The potential for friction, avoidance and divergence frequently arises at these seams between agencies, especially where there is ambiguity in vision, funding, authorities, and skill-sets of how to best deliver the mission. Although much easier to say than accomplish, the national security engagement model must become seamless. Our adversaries are already adept at exploiting these seams and thriving "in between" organizations. These new generation adversaries, who act like small and independent franchises, exploit our present industrial age model which gives them an asymmetric advantage. A prime example of this is the escalating war on illegal drugs – happening now – without regard to borders.

Today's inter-agency coordination efforts, although growing, are still discrete, purpose-driven and episodic. By example, we do not invest in truly combining across Federal (and State/Local) agencies a most important of assets – the human capital. Nor does our government aggressively "train" inter-agency collaboration and skills. Horizontal fusion across these elements is critical: Not getting this right risks our very ability to succeed in meeting this nation's integrated national security missions, both today and tomorrow. Although our government highlights and increasingly encourages interagency dialogue, communities of interest, and stresses coordination, current efforts are still largely "by invitation" and it is a specific and discrete individual management decision to participate. For

tomorrow's missions to succeed, inter-agency collaboration must become fully institutionalized; where natural incentives exist and encourage a collaborative outcome. This Culture of Collaboration must become the norm, not the exception.

Undoubtedly, the synchronization and coordinated execution of a shared vision across multiple entities is a huge and complex task. Today our nation employs millions of dedicated professionals, both directly and indirectly, engaged daily in delivering national security. Executing the mission is however encumbered and made more difficult by an ever-growing excrescence of constraints, policies, conflicting corporate cultures and bureaucratic constructs that overburden the efficiency and efficacy of the efforts. Much time, energy, money and scarce management bandwidth are spent on non-value added, agility-weakening 'industrial age' activities which result in a costly and cumbersome sub-optimal national security outcome incapable of the necessary agility to adapt to the dynamics of an ever-changing environment.

In 1947 our government undertook an encompassing 'reorganization' effort to establish the modern foundation for management and governance which our nation still applies today, 62 years later. The National Security Act of 1947 was designed to improve the agility of our government as a direct result of the 'lessons learned' from prosecuting the Second World War. Defense, along with other agencies, has also undertaken a number of significant actions since 1947, including the Goldwater-Nichols' Reorganization Act of 1986, the establishment of the Department of Homeland Security, and numerous agency and sub-agency efforts to address recognized unmet needs in a constantly changing national security landscape. These changes, however, have all lagged - not led - the strategy, governance and management of our nations' national security.

Our nation's collective approach to national security continually struggles with often dichotomous challenges in how to adequately yet economically prepare and defend against current and forthcoming threats to our nation's, allies' and partner's national successes. Improvement efforts have become largely incremental and 'at the margin'; overcome by immediate requirements. The

result is a tactical not strategic framework, which remains reactive, using stepwise methods to address problems. This results in an increasingly trailing process that cannot move out "ahead of the wave" in addressing our nation's forward enterprise challenges. Simply put, a requirement articulated today has a business cycle of approximately 15 years before it is fully fielded. That means tomorrow's war fighters, still in pre-school, will inherit potentially obsolete capabilities and technologies to combat a challenge that may no longer exist.

Why? The answer lies in the fact that Defense primarily operates and uses metrics and measures calibrated in output versus outcome terms. The enterprise is also designed around a 'bigger is better' approach. This makes outcomes much costlier, risks agility and impacts flexibility. There is a tremendous institutional resistance – including an entrenched Defense industry supply chain – which requires a huge amount of inertia to overcome. The infrastructure and culture cannot accept the rapid introduction of new ideas and innovative processes or methods. Existing programs become entrenched within an enterprise culture which rewards risk-avoidance. In many instances, this country's leadership – including Congress – continually faces a Hobson's choice; conform and work within the current framework or risk having nothing at all. This paradigm needs to be inverted, to create new agile models and frameworks with the right incentives, culture and environment for encouraging continuous outside-the-box innovation and improvement.

Our society has already entered the information age which, by example, provides our military complex computer-based battlefield technologies that deliver unprecedented precision and accuracy onto the battlefield. Our government, however, still largely thinks and operates under an industrial age management model from both a cultural and structural configuration.

Globally, we are already engaged in a war of ideas. The power of perception is enormous and our adversaries are successfully using the information age to exploit our weaknesses to mass effect. Information and media is socially networked and touches everything, impacting what we read, see and hear and influencing how we should interpret it. Our best weapon in this new war is an

ability to deploy knowledge and new ideas more rapidly and precisely. This requires an entirely new Defense model.

Today the Defense enterprise continues to think in an analogue way in an increasingly digital world. The aggressive implementation of modern information technology should not simply create more paper faster, but rather it should be used to enable us to operate more efficiently and effectively in a digital universe. There are many well documented best practices from the corporate world on how to "manage digitally." This can enhance efficiency, cooperation and collaboration. Today, collaboration tools, including portals etc. are sporadic and not widely practiced in government, and especially inter-agency. As an example, it is likely that a huge number of the meetings being held within government today could achieve equal (if not better) results using content-rich and cost-effective digital methods including webinars, wiki's, blogs, and social networking tools to cross-connect within and across agencies in a continuous v. discrete way. Our government could become much more productive and agile, and able meet the presently unmet needs within the existing resources and manpower.

Defense, within a "whole-of-government" vision and strategy, must look to create enduring incentives that encourage a return to an outcome-focused enterprise. We critically need an outcome-based government that supports and accelerates the advancement of an integrated digital-age national security vision in which the sum is greater than the individual parts.

To provide a catalyst, the agencies could be reinforced by Congress, which uniquely has an opportunity to help better synchronize across the whole of government. Asking a single agency such as Defense for an approach/answer will result in a Defense-only outcome; the same for State, Homeland Security, Commerce, Justice, etc. By example, hearings of the future should regularly and equitably engage participants across multiple agencies in collaboration toward solving the common challenges.

Just as members are empanelled across multiple committees that have direct relevance to the whole-of-government, an ability to better see across all of government within the executive branch, not just within a single agency, will

result in a better-coordinated, cooperative culture across agencies. This is an essential step in turning a seamed government into a seamless one.

Achieving this more accretive government offers not only tremendously better tax payer value, but a more effective way to leverage the assets we already have with greater efficiency. In a sentence, the coordination of collective actions can be made to efficiently work in this digital age by applying information-age collaborative tools which will ultimately provide for a better national security outcome.

Further, achieving the correct balance of longer-term strategic requirements with the pressing tactical needs of today is not easy to accomplish. Sending the correct signals, however, is critical and by engaging in broad, encompassing discussions across committees on the very nature of how to better and continuously engage the executive branch as "a whole of government" in delivering on our nation's security is not only directly beneficent, but sends a unified message to the millions of professionals both inside and outside government engaged in delivering this critical mission.

In summary, the unconventional is already the conventional. In an age where information travels at the speed of light, impacts billions of people within minutes, and flows across geographies without regard to traditional sovereign or state-based boundaries, taking the "high ground" in this new virtual battle space is challenging, dynamic, and driven faster than we can currently react.

I humbly suggest as a nation our government needs to begin to think differently: an analogue government in the digital age is becoming rapidly obsolete.

Thank you for inviting me here today, and I welcome your questions.

Congressional Testimony
House Armed Services Committee

John Robb
April 2, 2009

Threats to US Security in the early 21st Century

I am here before the subcommittee today to provide testimony on 21st Century security threats. I hope this testimony is of value despite its brevity. My analytical method is to provide frameworks for decision makers to help them make sense of rapidly changing environments. These frameworks are intended to provoke high quality thinking -- agreement or disagreement with their specifics works equally well to achieve this.

The threat the US faces today is as dire as the darkest days of the Cold War. In fact, this threat may be even more dangerous because it is so insidious. The threat we face is a combination of global systemic threats (economic, financial, energy, etc.) that will damage us from above and the rapid emergence of violent non-state groups (a multitude of gangs, religious sects, tribes, clans etc.) that thrust at us from below.

Let's begin with an acknowledgement that globalization has fundamentally changed the strategic security landscape. Most critically, it has enabled the emergence of a global super-network that is a tightly interconnected mixture of economic, financial and communication networks. The growth of this super-network has weakened nation-states across every measure of power, from control of its borders, finances, economy, media, etc. Worse, due to a combination of design decisions (hyper-efficiency, from just-in-time global supply chains to trillion dollar daily financial flows) and a complete lack of oversight during its growth phase, this super-network has now become a dynamically unstable system that is too large, fast, and complex for any nation-state or collection of nation-states to control.

This super-network has now entered a period of extreme turbulence due to several very dangerous feedback loops. These feedback loops include:

- **Extreme debt**. The US economy is saddled with a level of debt unseen since the start of the 20th Century's Great Depression. Total indebtedness -- the combination of consumer, corporate, GSE, financial, and government debt -- is now over 350% of GDP. That is $30 trillion in debt over traditionally sustainable levels of 150% of GDP (in contrast, in 1929, the debt level was 290% of GDP). Unfortunately, this excess debt must be eliminated before we can return to economic growth. We are already seeing this as individual citizens and corporations cut back spending to repair dangerously damaged balance sheets.

- **Excessive complexity**. Due to relaxed oversight a vast unregulated financial system of extreme complexity, beyond the ability of ***anybody*** to understand, has emerged. This "shadow banking system" is a collection of derivative financial products that are based on unsupportable assumptions for what constitutes "normal behavior" (as in the use of normal curves that don't account for the occurrence of extreme movements in financial markets over medium to long time horizons). Worse, this "shadow banking system" is

nearly an order of magnitude larger than the global economy upon which it was built. The failure of AIG and the near miss financial meltdown last fall are examples of how this system can catastrophically fail.

The likely outcome from this situation, barring a government sponsored unwinding of debt and derivative financial products (this is not being done), is a deep and protracted global depression that financially and economically guts nation-states across the globe. What this means for US security includes:

- **Widespread state failure**. Weak nation-states will quickly fall victim to financial collapse and internal chaos. Developing nations, like China, that are both dependent on exports to the US and weakly legitimate -- China's legitimacy rest solely on its ability to deliver economic growth -- may become very disorderly. It's important to note that the real threat from China is not as a peer competitor; it is that it may suffer a disorderly fragmentation.

- **Rapid growth in the number of violent non-state groups**. With the failure or weakening of nation-states across the board and the lack of ideological alternatives, people will shift their primary loyalties to any group that can provide them security and the basics of survival. These groups will span the gamut of gangs, tribes, criminal syndicates, militias, religious sects, etc. Many, if not most of these groups, will maintain and expand the interests both vigorously and violently. The worst version of this trend line would be the expansion of the criminal insurgency in Mexico into the US (through expansion of the criminal ecosystem more than anything due to ethnic identity).

- **Radical cuts in US defense spending**. US budget deficits, already running in the trillions of dollars, will continue as the US tax base shrinks and bailouts continue. The rapid onset of severe budgetary restrictions will force a disorderly shrinkage in the DoD, DHS, and intelligence agencies, and due to gross misallocation of funding, severely damage the ability of the US to respond to the rise in non-state threats.

The rapid growth in violent non-state groups is likely to become the most worrisome security trend and it will likely define the vast majority of the conflicts we will face in the next twenty years. How these small groups organize, fight, coordinate, and ultimately defeat nation-states was the subject of my book, "Brave New War" (amazingly, it's in its third printing, which is very unusual for a book on military theory). Here's a quick summary of some of its findings.

The rampant growth in interconnectivity (from economics to travel to communications) and torrential improvements in technology have already super-empowered small groups by radically increasing their ability to conduct warfare. This will only increase over time. Due to the combination of a doubling of computer power every two years (Moore's Law and Carlson curves) and the expansion of electronic networks from cell phones to the Internet (Metcalfe's Law), small groups are getting more powerful by the day. This will lead to:

- **Do-it-yourself weapons (DIY).** Cheaper and more powerful technology makes it possible to build more accurate, plentiful, and destructive weaponry. For example, DIY rockets being used in Gaza against Israel can now benefit from commercially available tools that include $150 rocket design software to a $25 autopilot system. We also saw numerous examples of this at work in Iraq with IED design. Over the longer term, DIY bioweapons will become commonplace as "labs on a chip" and the expertise that used to

take a room full of PhDs a week to build five years earlier is doable by a hastily trained technician in a couple of minutes.

- **Systems disruption.** Societal reliance on vast networked infrastructures (from electricity to oil to communications) makes it possible for small disruptions to do outsized harm. Recent examples, like the disruption of a gas pipeline in Mexico that shut down 1,800 factories/companies for a week, show returns on investment of 100,000,000 percent (calculated by the damage done divided by the cost of the attack). Systems disruption is growing in usage due to the successful example seen in Iraq, where the country's economy was held in limbo due to shortages of electricity, fuel, and water. Al Qaeda's unsuccessful attack on Abqaiq (a central hub of the global oil system) and it successful attack on the Golden Mosque (in Iraq) which set off the civil war in 2006 are other examples of system disruption.

- **Global criminal financing.** Easy access to vast multi-trillion dollar global criminal supply chains (made possible by the emergence of a global super-network), that connect customers with illegal goods/services, have made it possible for small violent groups to become not only financial viable, but financially successful. For example, the Taliban now has access to a portion of billions in opium sales to expand their operations, Mexico's Narco-cartels and thousands of associated criminal subgroups are successfully waging a war with the government to protect and extend a market worth tens of billions, Nigeria's gangs bunker billions in oil and fuel that in part funds disruption of oil production in the country.

In addition to the above, small violent groups are now developing new methods of organizing warfare. Rather than hierarchical and ideologically cohesive insurgencies (i.e. Communist insurgencies), we now face insurgencies that are made up of many small groups (organized around a plethora of motivations, as in many flavors of jihadi, nationalist, ideological, and criminal) that can loosely coordinate their activities. We saw this recently in Iraq and we are now facing this in Mexico and Pakistan. In this type of "open" insurgency, we see very rapid rates of innovation in both tactics and weapons (as in the rate of improvement we saw in Iraq with IEDs). Worse, since these groups are so small and can rapidly emerge, any success against one group means little to the larger insurgency.

Against this dark picture, a combination of assault by a global economic system running amok and organic insurgency by superempowered small groups, there are few hard and fast recommendations I can provide. It's complex. However, it is clear:

- **We will need to become more efficient**. Force structure will shrink. Most of the major weapons systems we currently maintain will become too expensive to maintain, particularly given their limited utility against the emerging threat. Current efforts from the F-22 and the Future Combat System appear to be particularly out of step with the evolving environment. Smaller and more efficient systems such as unmanned aerial vehicles and coordination systems built on open platforms (as in a Intranet) that allow organic growth in complexity make much more sense.

- **We should focus on the local.** In almost all of these future conflicts, our ability to manage local conditions is paramount. Soldiers should be trained to operate in uncertain environments (the work of Don Vandergriff is important here) so they can deal with local chaos. Packages of technologies and methodologies should be developed to enable communities in distressed areas to become resilient - as in, they are able to produce the food, energy, defense, water, etc. they need to prosper without reference to a dysfunction

regional or national situation. Finally, we need to get build systematic methods for managing large numbers of militias that are nominally allied with us (like Anbar Awakening, Pakistan's Frontier Corps, etc.). Even a simple conversion of a commercial "customer relationship management" system would provide better institutional memory and oversight than we currently have.

- **We need to get better at thinking about military theory.** Military theory is rapidly evolving due to globalization. It's amazing to me that the structures and organizations tasked with this role don't provide this. We are likely in the same situation as we were prior to WW2, where innovative thinking by JFC Fuller and Liddell Hart on armored warfare didn't find a home in allied militaries, but was read feverishly by innovators in the German army like Guderian and Manstein. Unfortunately, in the current environment, most of the best thinking on military theory is now only tangentially associated with the DoD (worse, it's done, as in my situation, on a part time basis).

Thank you for the opportunity to testify today. It was a wonderful opportunity. I hope this brief introduction will serve as the basis of valuable thinking on future US security needs.

Testimony of William D. Hartung
Director, Arms and Security Initiative
New America Foundation

Before the House Armed Services Committee
Subcommittee on Terrorism, Unconventional Threats and Capability

Hearing on
"Terrorism and the New Age of Irregular Warfare:
Challenges and Opportunities"

April 2, 2009

Let me begin by thanking Chairman Smith and the members of the Subcommittee for providing me with the opportunity to testify on this critical issue.

My main focus today will be on resources. As we were reminded by President Obama's presentation last week regarding his administration's new strategy for Afghanistan and Pakistan, counterinsurgency and counterterrorism can be expensive propositions.

We have already spent over $173 billion on the war in Afghanistan, an average of over $20 billion per year.[1] That number will rise significantly as we send more troops and spend more on training Afghan security forces. Military and economic aid to Pakistan will increase sharply. And additional civilian development aid to Afghanistan will be a crucial part of the mix as well. These will be long-term efforts, not the work of a year, or two years, or even five years. And while Afghanistan and Pakistan may be the central front, dealing with the threats posed by terrorism and irregular warfare will require investments on a global scale. Where will the funds to underwrite this new strategy come from?

The Congressional Budget Office has projected a deficit of $1.8 trillion this year and $1.4 trillion for FY 2010.[2] This suggests that we can't simply put the costs of implementing a more comprehensive approach to terrorism on our great national credit card.

Contrary to popular belief, savings generated by reductions in U.S. forces in Iraq are also unlikely to be significant, at least for the next few years. The planned reductions are fairly gradual. Even after the end of 2011 we may leave a residual force of 50,000 or more military personnel, along with an expanded effort to train and equip the Iraqi armed forces. Finally, the military services are calling for tens of billions of dollars to reset our armed forces by replacing equipment lost or

damaged in the war. I question whether the costs of reset will be this high going forward, in large part because a lot of this money has already been included in prior emergency supplementals for financing the wars in Iraq and Afghanistan. But regardless of what estimate one chooses, reset funding will clearly diminish any savings we may expect from the winding down of the Iraq war. All of these factors suggest that the short-term personnel reductions in Iraq will not free up significant resources that can be applied to other objectives.

In the light of all of this, the best way to fund the Afghan buildup and other related objectives is by restructuring the Pentagon budget.

We must ensure that every defense dollar is spent as efficiently and effectively as possible. The days of a "both/and" approach to national security spending are over. We can't afford to simultaneously fund Cold War era weapons, *and* equipment designed for use in current conflicts, *and* sophisticated systems destined to address distant threats that may or may not emerge decades down the road. Continuing to do so will have significant negative consequences on our ability to train, equip, and sustain forces designed to address the immediate threats posed by terrorism and other forms of irregular warfare.

In several recent speeches and interviews, Secretary of Defense Robert Gates has acknowledged the need to make choices within the military budget. He has suggested that we should place more emphasis on the wars of the present than on the potential conflicts of the future. In line with this approach, Secretary Gates has asserted that we may not be able to afford to continue buying expensive systems like the F-22 combat aircraft that are not being used in either Iraq or Afghanistan. President Obama reinforced this point in his recent address to Congress when he said that we need to "reform our defense budget, so that we're not paying for Cold War-era weapons systems we don't use."

But before suggesting where cuts can be made in the current Pentagon spending plan, I would like to spend a little time discussing how we got to this point. During the eight years of the Bush administration, few choices needed to be made for the simple reason that the rapid increase in defense spending allowed real trade-offs to be kicked down the road, to be dealt with by a future administration. While a few systems were cut or cancelled – most notably the Crusader artillery system – the general approach during the Bush years was anything goes.

This tendency to buy virtually everything the Department of Defense asks for is evidenced by the fact that the Pentagon's core budget has risen rapidly, even though it plays no role in funding the wars in Iraq and Afghanistan. Up until now these conflicts have been financed by separate emergency appropriations.

The Pentagon's baseline budget rose by 82% between FY 2002 and FY 2009, *after* adjusting for inflation.[3] Add to that the costs of the wars, and we are now spending more in real terms than we have spent at any time since World War II – more than at the height of the Vietnam War, more than at the height of the Korean War, and more than at the peak of the Reagan buildup of the 1980s. In light of the current economic crisis and the competing demands to fund health care, alternative energy, civilian infrastructure, more robust diplomacy, and other domestic and foreign policy priorities, these levels of military spending are no longer sustainable.

Thankfully, there are early signs that the Obama administration is prepared to make some real choices. Most notable in this regard is the administration's proposed top-line budget for the Pentagon for FY 2010, which is $534 billion.[4] Although this represents a modest increase of about 3% over the Bush administration's Pentagon budget for FY 2009, it is $50 billion less than the Pentagon requested.[5] The Pentagon's number was a "wish list" budget that was designed to test the new president. Would he dare to say no to a request made by the military services and the Department of Defense during wartime? If he did so, wouldn't he be labeled "soft on defense"?

President Obama did say no to the Pentagon's wish list, and thus far he has paid no political price for doing so. Aside from articles by a few conservative commentators, there has been no suggestion that imposing some fiscal discipline on the Pentagon undermines our national security. This is particularly true with respect to funds that are not destined to be used for the wars in Iraq and Afghanistan.

A second sign that the Pentagon is going to be required to put its budgetary house in order is the administration's decision to subject war spending to the same level of scrutiny that applies to the regular Department of Defense appropriations, starting with the FY 2010 budget. Rather than rushing through huge spending packages worth tens of billions of dollars without demanding detailed line items or careful vetting by the budget, appropriations, and armed services committees, the Obama administration has proposed that we demand the same level of accountability and transparency for war funding that we do for the rest of the Pentagon budget.

Perhaps most importantly of all, the administration has indicated that it will seriously consider deep cuts in or elimination of a number of major weapons projects. Some press reports have suggested that as many as six major programs may be cut. Doing so will make it easier to accommodate the costs of adding

92,000 personnel to the Army and Marines, while leaving leeway to spend on new weapons systems more suited to counterinsurgency or counter-terrorism operations, or to invest in diplomacy and foreign economic assistance, key non-military tools of security that have been chronically underfunded.

My recommendations for six weapons systems that can be cut without undermining our security are as follows:

The F-22 "Raptor": Designed to engage in air-to-air combat with a Soviet fighter plane that was never built, the F-22 – officially designated the Raptor – is the most expensive fighter plane ever developed. Counting R&D expenditures, each F-22 costs over $350 million. While considerably lower, the marginal cost – the immediate cost of adding one new aircraft to the inventory, not counting R&D costs already incurred – is still $143 million per plane.[6]

The F-22 is a plane in search of a mission. In an era in which current adversaries like the Taliban and the Iraqi insurgency have no air forces and potential future adversaries like Russia and China cannot match the capabilities of current U.S. fighter planes, whatever new capabilities the F-22 may bring with it are not worth the cost. As for recent efforts to re-purpose the Raptor as a ground attack aircraft, they beg the question of why one would use a $143 million plane for this mission when we have aircraft that can carry out the same mission at one-third to one-half of the cost.

Counting the four aircraft likely to be included in the FY 2009 emergency supplemental on Iraq, the Air Force has already purchased 187 F-22s at a cost of over $65 billion. Any decision to stop funding the plane now would not strictly speaking be a cancellation of the program, but rather a termination that would leave a considerable number of F-22s in the arsenal. Until it was instructed to stop speaking publicly about the number of F-22s it would like to procure – a number far beyond what the Pentagon considers necessary – the Air Force routinely suggested more than doubling the force to 381 aircraft. In late February, without mentioning any specific numbers, Air Force Chief of Staff Norton Schwartz said he planned to ask Defense Secretary Gates for more F-22s, but that the request would fall short of the service's oft-stated goal of 381 fighters.

Over the past few years, it has cost the Pentagon an average of $4.2 billion per year to purchase about 20 F-22s. Ending the program now would free up that $4 billion-plus for other purposes.

The F-35 Joint Strike Fighter: The Joint Strike Fighter was designed to be a versatile, affordable aircraft that would be produced in large quantities for the

United States and its key allies. In an effort to simplify logistics and benefit from economies of scale, variants of the plane are being developed for the Army, the Navy, the Marines, and the Air Force. As a next-generation fighter and attack aircraft it will fill a real need, but the Pentagon and the prime contractor should take the time to get the design right before going into full-scale production.

Current plans call for the military services to buy over 2,400 F-35s at a total cost of $240 billion, or about $100 million per plane. Although it is still at the very early testing stage, the cost of the program has already increased by nearly 20 per cent, even as the number of aircraft to be purchased has decreased by over 400 planes. The Government Accountability Office (GAO) has suggested that the cost overruns thus far are attributable in significant part to the Department of Defense's rush to buy production models of the aircraft while development and testing activities are still in their very early stages. Despite this warning, the Pentagon is looking to *accelerate* production of the Joint Strike Fighter. If current plans are allowed to go forward, the Department of Defense will buy the first 360 F-35s *before full flight testing has occurred*, at a cost of $57 billion.[7] Many of these planes will be purchased on cost-plus contracts, which means that for the most part the manufacturer will receive more money for running over budget than it would for coming in on time and on budget. With no incentive to cut costs, further overruns are inevitable.

Rather than rushing the F-35 into production, the Pentagon should slow down purchases of the plane while development and testing proceed. That way any changes that need to be made can be done up front as part of initial production, instead of as expensive retrofits later. Cutting purchases of the F-35 in half relative to the Pentagon's current procurement schedule would save $3 to $4 billion per year.

The Zumwalt Class Destroyer (DDG-1000): The DDG-1000 has been described as a "multi-mission" destroyer which can engage in combat against enemy ships, fire cruise missiles from long-range, and provide support to ground forces by use its two 155mm cannons. It is a massive ship, displacing 15,000 tons of water, 50% more than any current Navy surface combatant.

Cost is the key variable here. At $5 billon per ship for the first two and an estimated $3.6 billion for every ship thereafter, the DDG-1000 is a luxury that we can't afford in a time of tightening defense budgets. Its main mission of engaging other combat ships on the high seas was conceived in 1991, just as the Soviet Union was falling apart and well before it was clear that its main successor state, Russia, would be drastically reducing the size of its Navy. With China at most

looking to develop a force of surface combatants that can operate within its region, there is no pressing need for a huge, costly destroyer.

As for providing fire support for the Army and Marines, there has to be a cheaper way to launch cruise missiles and put two 155mm cannons in reach of a land battle. This program should be ended at the two ships already authorized, rather than proceeding to the seven ship level that has been discussed. The savings would be $3.6 billion per year over the next five years.

Virginia-class submarine (SSN-74): Similarly to the DDG-1000, the main mission envisioned for this submarine is no longer relevant. In a conventional battle with other combat ships, a submarine of this type can play an important role, but as noted above, the likelihood of this kind of combat occurring has diminished dramatically since the end of the Cold War. Other missions cited for the SSN-74 – from intelligence gathering, to providing a platform for inserting or removing Special Operations Forces, to launching conventionally-armed cruise missiles – can all be carried out more affordably by adapting or upgrading existing submarines. Ending production of the Virginia-class submarine would save over $3 billion per year.

Missile defense: Missile defense has been caricatured as "a weapon that doesn't work aimed at a threat that doesn't exist." While this may overstate the case, there is no question that the over $10 billion per year devoted to ground-, sea-, and air-based forms of missile defense could be far better spent on other defense, foreign policy, or domestic priorities.

President Obama has asserted that he will take an "evidence-based" approach to missile defense. If so, the evidence is in. This year marks the 26th anniversary of President Ronald Reagan's Star Wars speech, and there has yet to be realistic test that indicates that we can reliably shoot down incoming nuclear warheads launched from a long-range ballistic missile. The elements of the missile defense budget that involve defending against ICBMs can be eliminated without harming our security in any way. There is some indication that mid-range systems designed to protect troops or nearby allies from medium-range missiles may prove to be more effective.

In addition to questions of cost and effectiveness, there is one overriding argument against throwing billions of dollars at missile defense year after year. It is not needed to prevent a nuclear attack on the United States. As Greg Thielmann, a proliferation expert who worked at the State Department's Bureau of Intelligence and Research (INR) has noted, even if a nation like Iran or North Korea were to

develop nuclear weapons and the ability to launch them from a ballistic missile, the concept of nuclear deterrence would still operate:

"For emerging missile powers to anticipate effectively intimidating the United States with threats of direct missile attack on the American homeland is a dubious proposition. There is no empirical evidence that even the most erratic foreign leader would believe himself immune from . . .counterattack. . .Devastating retaliation and the end of the attacker's regime would have to be assumed."[8]

Given these realities, it makes sense to scale back missile defense spending dramatically, to perhaps $3 billion per year to cover the costs of ongoing research and development, and for refining technologies for defending against medium-range missiles. This would save $7 billion per year.

Nuclear Weapons:

Maintaining a huge arsenal of nuclear weapons poses a serious risk to our security. At this point in our history, their liabilities far outweigh any benefit they could possibly provide. That is why President Obama has pledged to work for a world free of nuclear weapons, and to pursue immediate, concrete measures towards that goal, including negotiating a new treaty with Russia involving deep cuts in our respective nuclear arsenals; seeking ratification of the Comprehensive Test Ban Treaty (CTBT); accelerating spending designed to eliminate "loose nukes" and bomb-making materials (plutonium and enriched uranium) in Russia and beyond; and ending all new production of bomb-making materials worldwide.

These common sense measures will all require Congressional support, either through providing necessary funding or via the ratification of treaties related to nuclear reductions. The time for eliminating or drastically reducing global nuclear arsenals is long overdue, as has been noted by a wide range of current and former government officials ranging from former Secretaries of State Henry Kissinger and George Shultz, to former Senate Armed Services Committee chairman Sam Nunn, to former Defense Secretary William Perry, to dozens of prime ministers, former defense secretaries, secretaries of state and foreign ministers from all over the world. The common thread uniting the arguments about the need to eliminate nuclear weapons is that since the greatest danger is the possibility of a terrorist organization acquiring one, we need to reduce that risk by cutting back global arsenals to the lowest levels possible. Substantially reducing our arsenal will also give us greater leverage in persuading other nations to scale back their own nuclear stockpiles or abandon their pursuit of these weapons. The fewer nuclear weapons there are, the safer we will be.

Moving from an active stockpile of roughly 5,000 deployed nuclear weapons to an arsenal of 1,000 total weapons – 600 deployed and 400 in reserve – would save on the order of $14.5 billion per year. Net savings after accounting for additional investments in securing "loose nukes" would be about $11 billion per year. This would still leave the United States with a more than adequate deterrent against any existing nuclear-armed state, while providing a first step towards President Obama's goal of eliminating all nuclear armaments.

These are my six candidates of weapons programs that can either be eliminated or steeply cut back without harming our security at a time when the greatest threats to our safety are posed by terrorism and other forms of irregular warfare. Taken together they would free up over $35 billion per year that could be applied to other objectives.

Additional examples of prudent cuts in military spending could be cited, but I will not address them in detail in this testimony. Along these lines, I would recommend to the subcommittee the recently published report, *A Unified Security Budget for the United States, FY 2009*, produced by a task force on which I served alongside eighteen other experts, including a former high-ranking Pentagon official and two retired military officers. The report identifies over $60 billion in potential cuts in military spending, and suggests shifting those funds towards non-military tools of security such as diplomacy, foreign economic assistance, public health, and alternative energy development.[9]

An important element of President Obama's new strategy for Afghanistan and Pakistan is to address the current imbalance between military and economic assistance. For example, a recent report by the Center for American Progress notes that thus far Department of Defense spending devoted to the conflict in Afghanistan has been more than ten times the amount spent on non-military foreign aid and diplomatic operations.

Interestingly enough, one of the most vigorous proponents of increasing spending for non-military tools of security is Secretary of Defense Robert Gates, who called for major increases in State Department funding at a speech he gave at his alma mater, Kansas State University. To drive the point home, he noted that there are more personnel engaged in running one aircraft carrier task force than there are trained diplomats in the entire U.S. Foreign Service.[10] He might have added that the Navy has eleven aircraft carriers, while there is only one State Department.[11]

Diplomacy must be one part of a more comprehensive strategy. Foreign assistance is another. Investing in roads, schools, clean water, agriculture, and

energy and communications technologies is our best hope for heading off "failed states" and nascent insurgencies in the developing world. That is why so many of us welcome President Obama's pledge to double U.S. foreign assistance over the next four years. Unfortunately, this promising initiative has already hit a potential road block. In its recent mark-up of the Obama administration's FY 2010 Foreign Affairs Budget proposal, the House Budget Committee cut the president's request by nearly 10%. By contrast, the proposal for the Pentagon was untouched. This counterproductive action seems to reflect a combination of an understandable urge to find places to cut spending in a period of trillion dollar-plus budget deficits and an unfortunate failure to grasp that diplomacy and development assistance are every bit as important to our national security as military forces.

The $35 billion in savings that can be derived from cutting unnecessary weapons programs could help underwrite President Obama's pledge to dramatically increase development spending, as well as allowing us to invest substantially more in the diplomatic capabilities of the State Department.

Perhaps most importantly of all, more flexibility in the use of our national security budget could help fund the President's new initiatives on Afghanistan and Pakistan. There is an emerging consensus that instability in Pakistan – a nuclear-armed state plagued by violent extremists -- is one of the greatest threats we face. A central part of the Obama administration's plan for addressing this threat is a package of civilian support and development assistance valued at $1.5 billion per year for five years. Yet there is already some concern as to whether this plan will be fully funded by the Congress. If we use our existing national security resources wisely, there should be no reason *not* to finance the President's entire aid package for Pakistan.

Let me just conclude by saying that if we want to fund a robust, multi-faceted strategy for addressing terrorism and irregular warfare, we need to realign our national security budget, both within traditional defense areas and across the spectrum of non-military tools that are so essential to success. I look forward to your questions, and I thank you again for this opportunity to address the subcommittee.

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[1] Amy Belasco, "CRS Report for Congress: The Cost of Iraq, Afghanistan, and Other Global War on Terror Operations Since 9/11," Congressional Research Service, updated October 15, 2008, p. 7.

[2] Congress of the United States, Congressional Budget Office, "A Preliminary Analysis of the President's Budget and an Update of CBO's Budget and Economic Outlook," March 2009, p. 2.

[3] Steven M. Kosiak, "Analysis of the FY 2009 Defense Budget Request," Center for Strategic and Budgetary Assessments, 2008, p. 55.

[4] White House Office of Management and Budget, "A New Era of Responsibility: The 2010 Budget," p. 53.

[5] Travis Sharp, "Pentagon Budget Faces Uncertain Future," Center for Arms Control and Non-Proliferation, February 3, 2009, p. 1.

[6] Except where otherwise indicated, figures on weapons costs cited in this section come from one or more of the following sources: U.S. Department of Defense, "Program Acquisition Costs by Weapon System: Department of Defense Budget for Fiscal Year 2008," February 2007; U.S. Department of Defense, "Fiscal Year 2009 Budget Request, Summary Justification," February 4, 2008, pp. 154-210; Travis Sharp, op. cit., note 5; Miriam Pemberton and Lawrence Korb, editors, "A Unified Security Budget for the United States, FY 2009," Foreign Policy in Focus, September 2008; and Lawrence J. Korb et. al., "Building a Military for the 21st Century: New Realities, New Priorities," Center for American Progress, December 2008.

[7] United States Government Accountability Office, "Joint Strike Fighter: Accelerating Procurement Before Completing Development Increases the Government's Financial Risk," GAO-09-303, executive summary.

[8] Greg Thielmann, "Rumsfeld Reprise?—The Missile Report that Foretold the Iraq Intelligence Controversy," Arms Control Today, (July/August 2003).

[9] Pemberton and Korb, op. cit., note 6.

[10] Secretary of Defense Robert Gates, Landon Lecture (Kansas State University), November 26, 2007.

[11] United States Navy Fact File, "Aircraft Carriers: CV, CVN," updated February 2009.

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