Stenographic Transcript Before the

COMMITTEE ON ARMED SERVICES

UNITED STATES SENATE

HEARING TO CONSIDER THE NOMINATIONS OF: DR. LISA J. PORTER TO BE DEPUTY UNDER SECRETARY OF DEFENSE FOR RESEARCH AND ENGINEERING; JAMES N. STEWART TO BE ASSISTANT SECRETARY OF DEFENSE FOR MANPOWER AND RESERVE AFFAIRS; DR. JAMES H. ANDERSON TO BE ASSISTANT SECRETARY OF DEFENSE FOR STRATEGY, PLANS, AND CAPABILITIES; GREGORY J. SLAVONIC TO BE ASSISTANT SECRETARY OF THE NAVY FOR MANPOWER AND RESERVE AFFAIRS; AND DR. CHARLES P. VERDON TO BE DEPUTY ADMINISTRATOR FOR DEFENSE PROGRAMS, NATIONAL NUCLEAR SECURITY ADMINISTRATION

Thursday, May 10, 2018

Washington, D.C.

ALDERSON COURT REPORTING 2020 K STREET, NW SUITE 700 WASHINGTON, D.C. 20006 (202) 289-2260 www.aldersonreporting.com

1 HEARING TO CONSIDER THE NOMINATIONS OF: 2 DR. LISA J. PORTER TO BE DEPUTY UNDER SECRETARY OF DEFENSE FOR RESEARCH AND ENGINEERING; 3 JAMES N. STEWART TO BE ASSISTANT SECRETARY 4 5 OF DEFENSE FOR MANPOWER AND RESERVE AFFAIRS; DR. JAMES H. ANDERSON TO BE ASSISTANT SECRETARY 6 7 OF DEFENSE FOR STRATEGY, PLANS, AND CAPABILITIES; 8 GREGORY J. SLAVONIC TO BE ASSISTANT SECRETARY OF THE NAVY FOR MANPOWER AND RESERVE AFFAIRS; AND 9 10 DR. CHARLES P. VERDON TO BE DEPUTY ADMINISTRATOR 11 FOR DEFENSE PROGRAMS, NATIONAL NUCLEAR SECURITY 12 ADMINISTRATION 13 14 Thursday, May 10, 2018 15 16 U.S. Senate 17 Committee on Armed Services 18 Washington, D.C. 19 20 The committee met, pursuant to notice, at 9:31 a.m. in 21 Room SH-216, Hart Senate Office Building, Hon. James M. 22 Inhofe, presiding. 23 Committee Members Present: Senators Inhofe [presiding], Wicker, Fischer, Cotton, Rounds, Ernst, Tillis, 24 25 Sullivan, Sasse, Reed, Nelson, McCaskill, Shaheen,

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OPENING STATEMENT OF HON. JAMES M. INHOFE, U.S.

2 SENATOR FROM OKLAHOMA

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3 Senator Inhofe: The committee will come to order. Today we meet to consider the nominations of Dr. Lisa 4 5 Porter to be Deputy Under Secretary of Defense for Research 6 and Engineering; Mr. James Stewart to be Assistant Secretary 7 of Defense for Manpower and Reserve Affairs; Dr. James 8 Anderson to be Assistant Secretary of Defense for Strategy, Plans, and Capabilities; Mr. Greg Slavonic to be Assistant 9 10 Secretary of the Navy for Manpower and Reserve Affairs and 11 also an old-time friend of mine; and Dr. Charles Verdon to 12 be Deputy Administrator for Defense Programs, National 13 Nuclear Security Administration.

Before starting -- first of all, we thank all of you for being here. We are looking forward to hearing from you, but I would like to introduce Senator James Lankford who would participate in an introduction of Mr. Slavonic.

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STATEMENT OF HON. JAMES LANKFORD, U.S. SENATOR FROM
 OKLAHOMA

3 Senator Lankford: Senator Inhofe, thank you for that.
4 Allow me to be able to just step in for just a moment. I
5 will be brief.

6 But I wanted to be able to introduce to this committee as well Greg Slavonic. Greg is someone that I not only know 7 but I know extremely well. He has been chief of staff for 8 the last 3 years that I have been here in the Senate. When 9 10 I transitioned from the House, serving 4 years in the House and then serving in the Senate, I was sort of looking for a 11 12 chief of staff that could help us in this process. And I 13 found Greg Slavonic basically out on the golf course without 14 his time being well used.

15 Greg Slavonic started as a seaman recruit in 1971 and advanced after 30-plus years in the Navy all the way to a 16 17 rear admiral. He has served both active duty and reserves. 18 He has been a solid person to serve in multiple different 19 theaters. And you have got his list of all his different 20 medals and ribbons and such as well. But he has been a 21 solid leader for us in our State and for the United States 22 in the Navy for all these years.

23 When I reached out to him, he was unofficially retired. 24 He was working multiple different media outlets and other 25 places. But I reached out to him and asked him to be able

1 to step back up and serve his country again.

2 I cannot tell you how thrilled I am that his country is asking him to be able to serve in this role as well. He 3 would be a solid leader for the Navy. He is someone who 4 5 brings a wealth of experience both for active duty and 6 reserves, and that is a great asset to be able to have 7 somebody that has a good perspective in both those areas. 8 And after decades of service to our nation, he is well suited for this task. So he is not only a friend, but I 9 10 think he will be a solid leader for our country in the 11 Pentagon as well. 12 So thank you for allowing to give a brief introduction 13 of him and my overwhelming support for him. Senator Inhofe: Thank you so much, Senator Lankford. 14 15 And I agree wholeheartedly in your remarks. 16 As this is always the case, we have some required 17 questions and answers that have to take place before we can 18 proceed with our hearing. And what I would like to do is 19 ask you the questions and ask you to respond audibly so that 20 we do not have to go back and try to seek you out and pump 21 you for another answer. All right? 22 First of all, have you adhered to applicable laws and 23 regulations governing conflicts of interest? 24 Mr. Slavonic: Yes.

25 Mr. Stewart: Yes.

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1 Dr. Porter: Yes.

2 Dr. Anderson: Yes.

3 Dr. Verdon: Yes.

Senator Inhofe: Will you ensure that your staff
complies with deadlines established for requested
communications, including questions for the record in
hearings?

8 Mr. Slavonic: Yes.

9 Mr. Stewart: Yes.

10 Dr. Porter: Yes.

11 Dr. Anderson: Yes.

12 Dr. Verdon: Yes.

13 Senator Inhofe: Will you cooperate in providing

14 witnesses and briefers in response to congressional

- 15 requests?
- 16 Mr. Slavonic: Yes.
- 17 Mr. Stewart: Yes.
- 18 Dr. Porter: Yes.
- 19 Dr. Anderson: Yes.

20 Dr. Verdon: Yes.

21 Senator Inhofe: Will those witnesses be protected from

22 reprisal for their testimony or briefings?

23 Mr. Slavonic: Yes.

24 Mr. Stewart: Yes.

25 Dr. Porter: Yes.

1 Dr. Anderson: Yes.

2 Dr. Verdon: Yes.

3 Senator Inhofe: Do you agree, if confirmed, to appear
4 and testify upon request before this committee?

5 Mr. Slavonic: Yes.

6 Mr. Stewart: Yes.

7 Dr. Porter: Yes.

8 Dr. Anderson: Yes.

9 Dr. Verdon: Yes.

10 Senator Inhofe: And do you agree to provide documents, 11 including copies of electronic forms of communication, in a 12 timely manner when requested by a duly constituted committee 13 or to consult with the committee regarding the basis for any

14 good faith delay or denial in providing such documents?

- 15 Mr. Slavonic: Yes.
- 16 Mr. Stewart: Yes.
- 17 Dr. Porter: Yes.
- 18 Dr. Anderson: Yes.
- 19 Dr. Verdon: Yes.

20 Senator Inhofe: Lastly, have you assumed any duties or 21 undertaken any actions which would appear to presume the

- 22 outcome of the confirmation process?
- 23 Mr. Slavonic: No.
- 24 Mr. Stewart: No.
- 25 Dr. Porter: No.

1 Dr. Anderson: No.

2 Dr. Anderson: No.

3 Senator Inhofe: Thank you very much.

Dr. Porter, you have been nominated to serve in the Department's acquisition enterprise at an important moment. As we have heard from our senior leaders, America's military advantage is eroding. I go back and listen to the statement of our Chairman of the Joint Chiefs of Staff when he said that we are losing our edge, and we have been losing our edge.

A better acquisition system will be critical in 11 12 reversing this trend. If confirmed, you will be helping to 13 carry out some of the most important reforms, the 14 reorganization of the acquisition enterprise that will 15 require real leadership and vision, and we hope that you 16 will consider us as a partner in this work. And I would add 17 that I can remember this all the way back to the service I had in the House Armed Services Committee. We have been 18 19 working at this. So, Dr. Porter, you are the one who can 20 get it done.

21 Mr. Stewart, during recent years of inadequate funding 22 and budget uncertainty, we know personnel and readiness were 23 often the hardest hit. Looking forward, ensuring the 24 military's ability to recruit and to retain high quality 25 service members will be necessary to maintain an effective

1 all volunteer force. The committee is increasingly

2 concerned that the Defense Officer Personnel Management Act 3 is an outdated policy and mandates rigidity over flexibility 4 and is simply unable to cope with the demands of the modern 5 force. If confirmed, we will look to you to help us 6 modernize the personnel system.

7 Dr. Anderson, if confirmed, you would play a central role in the implementation of the National Defense Strategy. 8 Major decisions lie ahead about how we equip, posture, and 9 10 employ the joint force. You rendered a distinguished service in the Marine Corps and have significant experience 11 12 related to Middle East policy. Today we hope you will 13 explain how you intend to apply your background and 14 experience to exercise strong civilian control of the 15 functional areas for which you would be responsible, 16 including force planning, force development, contingency 17 planning, joint requirements, and joint concept development. 18 Mr. Slavonic, if confirmed, you will be tasked with 19 ensuring the Navy has the people needed to responsibly grow 20 the fleet. As you know, we have got some pretty ambitious 21 ideas on what is going to be happening to the Navy, and you 22 are the guy, if confirmed, that would be overseeing that. 23 Achieving the proper balance between end strength and 24 equipment is no small task. If Navy manpower grows too 25 quickly without the ships to accommodate the new sailors,

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readiness will suffer. Conversely, if the fleet grows
faster than the Navy's ability to recruit new sailors, the
service risks wearing out those who are already serving.
The Navy has innovative plans as it looks to the future, and
we look forward to you to continue those efforts, if you are
confirmed.

7 And Dr. Verdon, your decades of work at the Lawrence 8 Livermore National Laboratory and other National Nuclear Security Administration facilities have, no doubt, prepared 9 10 you to serve as the Deputy Administrator for Defense 11 Programs. If confirmed, you will be charged with 12 implementing the NNSA portion of the Nuclear Posture Review, 13 including life extension programs and supplemental capabilities in a number of large infrastructure projects. 14 15 We look forward to hearing your thoughts on how you would 16 approach these difficult tasks. 17 Senator Reed? 18 19 20 21 22 23

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STATEMENT OF HON. JACK REED, U.S. SENATOR FROM RHODE
 ISLAND

Senator Reed: Well, thank you very much, Mr. Chairman.
Let me join you in welcoming our nominees and also
thanking them for their willingness to serve and also to
thank the family members who are here because none of these
jobs are performed in isolation or alone. So thank you very
much.

Dr. Porter, if confirmed, you will be responsible for 9 10 helping Dr. Griffin, the new Under Secretary of Research and Engineering, stand up his office so that it can promote 11 12 innovation in the Defense Department at a very complex time. 13 You will be tasked to develop strategic guidance and provide 14 leadership to all elements of the research and innovation 15 community, ranging DARPA to the labs to newer offices like 16 the Strategic Capabilities Office and DIUx, the Silicon 17 Valley outreach activity. You will also be responsible for 18 maintaining technological superiority over rising near-peer 19 adversaries, especially in emerging technology areas like 20 artificial intelligence and quantum computing. I look 21 forward to hearing your thoughts on how to address these 22 complex challenges.

23 Mr. Stewart, if confirmed as the Assistant Secretary of 24 Defense for Manpower and Reserve Affairs, you will face many 25 challenges. First and foremost, the Department and the

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1 military services must have adequate numbers of ready and 2 trained service members of sufficiently high character and talent to meet national defense objectives, an increasingly 3 difficult task given the declining propensity and 4 5 eligibility among the nation's youth to serve in the 6 military. You will also be addressing the reform of the 7 officer management system and streamlining the operations of the DOD Education Activity and the Defense Commissary 8 9 Agency.

10 Mr. Stewart, your past experience will serve you well in your new position. I look forward to working with you. 11 12 Dr. Anderson, you have been nominated to serve as the 13 Assistant Secretary of Defense for Strategy, Plans, and 14 Capabilities. This is an important position that oversees 15 the National Defense Strategy, the development of global 16 defense posture, the review of campaign and contingency 17 plans, nuclear and missile defense policy, and security 18 cooperation activities. In other words, the position you will assume, if confirmed, is critical to preparing the 19 20 Department for the future strategic environment.

The implementation of the recent National Defense Strategy will likely be your primary challenge. While the reemergence of long-term strategic competition with Russia and China is the central challenge facing our nation, the Department must address other equally urgent situations,

1 including tensions on the Korean Peninsula, Iran's ongoing 2 malign activities, and violent extremist organizations like Therefore, I would welcome your thoughts on the 3 ISIS. priorities you will pursue, if confirmed as the Assistant 4 5 Secretary, in the context of a dynamic defense environment. 6 Admiral Slavonic, if confirmed, you will serve as the 7 Assistant Secretary of the Navy for Manpower and Reserve Affairs where you will face many of the same thorny policy 8 issues as Mr. Stewart. Senator Lankford's commendation can 9 only be seconded. Thank you for your service to the Navy 10 and to the nation. I look forward to working with you as 11 12 you too confront the same problems of finding qualified, 13 eligible, talented young Americans to serve in the United 14 States Navy.

15 Dr. Verdon, you are highly qualified for the position of Deputy Administrator for Defense Programs within the 16 17 National Nuclear Security Administration, or NNSA. You are 18 now the director of the weapons program at Lawrence 19 Livermore Laboratory, and before that, you were at the 20 University of Rochester's Laboratory for Laser Energetics, 21 which serves as an important feeder of scientists to the 22 NNSA laboratories.

If confirmed, you will confront a broad array of challenges in modernizing our stockpile, which right now encompasses programs extending the life of four or even

1 probably six weapon systems within the next 5 years. In 2 particular, you will confront the daunting challenge of restarting plutonium pit production to meet the needs of the 3 4 Department of Defense, while ensuring there is an adequate 5 workforce and infrastructure at the laboratories and plants to accomplish the overall modernization mission. This 6 7 plutonium mission is of particular concern to me, and I am 8 interested in your thoughts on the major issues you expect 9 to confront. 10 Once again, let me thank you all for being here today 11 and for serving the nation. 12 Senator Inhofe: Thank you, Senator Reed.

13 What we are going to do is put your entire statement 14 into the record, but you can have an abbreviated statement. 15 Try to keep within 5 minutes. We will have a well attended 16 bench up here, and we want to have time to ask you 17 questions.

18 And we will start with you, Mr. Slavonic. You are 19 recognized.

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STATEMENT OF GREGORY J. SLAVONIC TO BE ASSISTANT
 SECRETARY OF THE NAVY FOR MANPOWER AND RESERVE AFFAIRS
 Mr. Slavonic: Thank you, Senator Inhofe.
 Senator Inhofe, Ranking Member Reed, distinguished
 members of the committee, it is an honor and privilege to

appear before you today as the President's nominee to be the
Assistant Secretary of the Navy for Manpower and Reserve
Affairs. Words cannot adequately express how I feel.
Should I be confirmed to once serve in the Department of the
Navy and the people of the United States will be a great
honor.

Before I begin, I would like to again thank Senator Lankford for taking time from his busy schedule to come and make comments on my behalf. That was truly appreciated, and I am humbled and honored.

Before I begin, let me say thank you to the President of the United States, Secretary Mattis, Secretary Spencer for their support and confidence in me to serve in this position.

I would like to again thank Senator Lankford for the opportunity to return to Washington, D.C. to serve with him and the people of Oklahoma for the past 3 and a half years as his chief of staff.

Most of all, I want to thank my wife Molly, who has been my partner for 46 years of marriage and truly

understands what it means to be a Navy spouse. Molly; my
 daughters, Kara, Maggie; my son Blake; and my brother Gary
 were all unable to be here today, but I know they are here
 in spirit.

5 As I look at this date, May 10th, it did not dawn on me the significance of it until last night when I was preparing б 7 for this hearing. 46 years ago today I was a young Navy seaman aboard the USS Constellation in the Tonkin Gulf, and 8 we were launching aircraft into Hanoi and minding the 9 10 harbors of Haiphong. And it is truly ironic that some 46 years later I am now here, if confirmed, to be the Assistant 11 12 Secretary of the Navy for Manpower and Reserve Affairs. 13 I had the honor to wear the uniform of our nation for 14 34 years and serve with some of the best and brightest civilians and military in the Department of Defense. If 15 16 confirmed, I intend to once again bring those experiences of success to the position for which I have been nominated. 17 18 If confirmed, I promise to continue the excellence that has been the hallmark of the United States military and 19 20 specifically the Navy and Marine Corps. I will dutifully 21 carry out the laws of this great nation and, most 22 importantly, ensure that U.S. Navy and Marine Corps 23 personnel are of the highest quality and are properly 24 trained and prepared for the missions that they have been 25 called to undertake.

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1 I am fully aware of the challenges that face our 2 military, especially the Navy, but I also know the military is full of very bright minds and determined individuals and 3 I will not have to face these challenges alone. If 4 5 confirmed, I will have dedicated military and civilian 6 personnel alongside that I can count on as a team and we can 7 work together to solve the problems and these future 8 challenges.

9 Looking to the future, should you confirm my 10 nomination, I have identified two objectives which I would 11 like to address immediately.

12 First is to ensure the people within the Navy and 13 Marine Corps team, uniform and civilian, are always our 14 first priority. I learned 34 years ago during my naval career -- and it appears to continue today -- that we ask 15 16 our military to do more with less. At some point, this 17 cycle must be broken. People are our greatest and most 18 powerful asset. We must ensure that they have the tools to 19 accomplish the mission.

Second is to ensure we continue to have the best and brightest serving in the Navy and Marine Corps. There is a war for talent and we must win. As former Chief of Naval Operations Admiral Vern Clark once told a group of fellow flag officers, "We are not in the business of finishing second." This statement is true today as it was 15 years

1 ago.

2	If confirmed, I commit to working with the committee
3	and every Member of Congress to address any concerns that
4	may arise and to be accessible and transparent. After all,
5	I believe it is in the best interest of our military to work
б	hand in hand with the legislative branch to address any and
7	all issues that affect the Navy, Marine Corps, and the
8	security of our nation.
9	I want to reiterate my appreciation to the chairman and
10	ranking member and the committee staff for their courtesies
11	and professionalism that I have been shown. I look forward
12	to your questions.
13	[The prepared statement of Mr. Slavonic follows:]
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1	Sena	tor	Inhofe:	Thank	you,	Mr.	Slavonic.
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STATEMENT OF JAMES N. STEWART TO BE ASSISTANT 1 2 SECRETARY OF DEFENSE FOR MANPOWER AND RESERVE AFFAIRS Mr. Stewart: Senator Inhofe, Ranking Member Reed, and 3 4 distinguished members of the Committee on Armed Services. I 5 am deeply humbled and honored to be here with you today. 6 Thank you for considering my nomination for the Assistant 7 Secretary of Defense for Manpower and Reserve Affairs. 8 I am also grateful to the President and Secretary Mattis for their support and trust and confidence in my 9 10 ability to fill this important position. Finally, I would like to thank my immediate family 11 12 members who are here with me today: my wife of 40 years 13 Kristi, my daughter Aubrey, and my son Aaron. Senator Inhofe: Hold their hands up here. 14 15 Mr. Stewart: Right behind me here. 16 Senator Inhofe: Good. Thank you. 17 Mr. Stewart: I would also like to thank my brothers 18 and sisters, my mother, my father, who is no longer with us, 19 for their untiring support over these many years as I served 20 like my father and brother in the United States Air Force. 21 There are over 4.5 million active, reserve component, 22 and retired military personnel and over 860,000 appropriated 23 and non-appropriated civilian employees in the Department of 24 Defense. If confirmed, it will be my responsibility to 25 serve as the principal advisor to Secretary Mattis and Under

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Secretary Wilkie on all personnel policy, plans, and program
 issues involving these outstanding Americans and, most
 importantly, their families as well. From rating systems
 and awards to child care, education, groceries, this is an
 enormous and humbling charge.

6 Given the diverse and extensive scope of the manpower 7 and reserve affairs portfolio, it is crucial that each decision made by the Assistant Secretary enhances Secretary 8 Mattis' vision to provide management systems and policies 9 10 where leadership can harness opportunities and ensure effective stewardship of the taxpayer resources. This 11 12 position has the awesome responsibility of ensuring our most 13 important asset, our people and their families, are well 14 served by providing them with the tools and the help they 15 need to ensure our national defense in a budget constrained 16 environment.

17 As the Department of Defense seeks to improve and sustain readiness, balance capability and capacity, and 18 maximize our lethality, improvement must be pursued in the 19 20 overall management of the total force of the active and 21 reserve component, government civilians, and contracted 22 service personnel. Reforms and efficiencies should be 23 pursued in order to provide the maximum capability and 24 lethality for the personnel dollars spent. If confirmed, I 25 will work with the Under Secretary of Defense for Personnel

1 and Readiness, the Office of Personnel Management, the 2 Department's subject-matter experts, along with the Joint Staff, service chiefs, and reserve component leadership to 3 pursue promising courses of action that best serve our 4 5 mission needs while freeing up money for readiness demands. 6 I will organize for innovation by adapting organizational 7 structures to best support the force, to drive budget discipline, consolidate and streamline processes, and 8 eliminate duplication of effort. 9

10 Sustainment of the all volunteer force is my ultimate 11 priority, and this objective cannot be met unless you take 12 care of the member's family. Whether it is spouse 13 education, career opportunities, dependent education, 14 medical care, child care, relocation assistance, the 15 exchange or commissary, deployment support, Yellow Ribbon reintegration, employer support of the Guard and Reserve --16 17 yes, all of these fall underneath the purview of the 18 Assistant Secretary of Defense for Manpower and Reserve 19 Affairs -- if you do not pay attention to the family's 20 needs, the member will leave. Trust me. There are numerous 21 civilian companies looking for the skills our members 22 possess.

If confirmed for the Assistant Secretary of Defense for Manpower and Reserve Affairs position, I will strive to be a consistent, transparent, and honest advocate for the needs

1	of all of our Department of Defense personnel and their
2	families while maintaining open lines of communication
3	between my office and the Congress. To this end, I will
4	proactively communicate with Congress and ensure the
5	congressional defense committees receive timely and
6	informative updates on all major issues and initiatives in
7	my portfolio, were I to be confirmed.
8	Thank you.
9	[The prepared statement of Mr. Stewart follows:]
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1	Sena	ator	Inhofe:	Thank	you,	Mr.	Stewart.
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STATEMENT OF DR. LISA J. PORTER TO BE DEPUTY UNDER
 SECRETARY OF DEFENSE FOR RESEARCH AND ENGINEERING
 Dr. Porter: Senator Inhofe, Ranking Member Reed, and
 distinguished members of the committee, thank you for the
 opportunity and the privilege to appear before you today.
 I would like to thank President Trump and Secretary

7 Mattis for nominating me for the position of Deputy Under
8 Secretary of Defense for Research and Engineering and this
9 committee for consideration of my nomination.

10 The dominance of our military depends critically on our ability to develop and deploy technologies that provide our 11 12 warfighters with an overwhelming advantage over our 13 adversaries. Both DOD leadership and this committee have 14 emphasized that the increasingly global nature of technology advancement necessitates a shift in our strategy regarding 15 16 our military's technology development. Furthermore, we face 17 not only a diversity of threats but also a diversity of 18 technological approaches being used against us, which range 19 from innovative uses of existing technologies in ways we 20 have not always anticipated to the employment of cutting-21 edge capabilities ranging from space systems to cyber 22 attacks to machine learning to hypersonics to biotechnology. 23 Delivering effective technological solutions at the speed of 24 relevance against such a complex threat space demands 25 significant depth and breadth of expertise coupled with a

1 sense of urgency and a laser focus on mission impact.

2 Fortunately, our nation possesses an incredible amount 3 of talent that spans our universities, government, and nonprofit laboratories, and the private sector. My 4 5 experience at DARPA, NASA, IARPA, and In-Q-Tel has exposed 6 me to brilliant innovators across the country, and I have 7 seen firsthand the great things that can be accomplished when those powerful minds are focused on a really hard 8 problem and asked to solve it. Each of these communities 9 10 has an important role to play, and I am confident that the DOD will be able to unleash the full power of the expertise 11 12 resident throughout our nation's research and engineering 13 enterprise to develop solutions to our military's most pressing problems. If confirmed, I will be fully committed 14 15 to achieving this goal.

I greatly appreciate the focus of this committee and of current senior DOD leadership on the need to significantly expedite technology transition to operational use. The "valley of death" is a term that has been used extensively for decades. It is not a new problem, and importantly, it is not a problem unique to DOD or even to the government. It is a fundamental challenge of innovation.

23 My experience has taught me that one of the key 24 ingredients of successful technology transition is a culture 25 of experimentation and prototyping, with full and early

1 engagement from end users. Rapid and effective prototyping, 2 where meaningful failures steer us quickly through an exploration of both the opportunities and the limitations of 3 4 innovative ideas, can build a bridge over the valley of 5 death. Such an approach must be accompanied by both the 6 willingness to stop doing the things that do not work and 7 the utilization of sound science and engineering principles 8 that guide the experimental testing of new technologies and systems. If confirmed, I will work with the USDR&E to 9 10 establish a culture of experimentation, technical integrity, 11 and warfighter engagement to ensure that we design, develop, 12 and transition technological solutions that enhance the 13 lethality of our joint force.

I would like to thank this committee for its commitment to ensuring that the DOD maintain its ability to rapidly develop and deploy the breadth of technological capabilities that our warfighters need to remain the most impressive and dominant military force in the world. I am truly humbled to be here today, and I look forward to answering your questions.

21 [The prepared statement of Dr. Porter follows:]
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1	Senator Inhofe: Thank you, Dr. Porter.
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STATEMENT OF DR. JAMES H. ANDERSON TO BE ASSISTANT
 SECRETARY OF DEFENSE FOR STRATEGY, PLANS, AND CAPABILITIES
 Dr. Anderson: Senator Inhofe, Ranking Member Reed,
 distinguished members of the committee, it is an honor to be
 here today.

I am thankful for the confidence that President Trump
and Secretary Mattis have placed in me as the nominee to be
Assistant Secretary of Defense for Strategy, Plans, and
capabilities.

10 I would not be here today without the support of 11 family, friends, and mentors who have helped me throughout 12 my career. My parents, Barbara and Michael Anderson, 13 instilled in me the value of hard work, honesty, and respect 14 for others. My children, James and Olivia, inspire me every 15 day. I wish to thank Emily Anderson, my much better half, 16 who is present today. She knows well the sacrifices of 17 Pentagon positions --

Senator Inhofe: Where are you? There you are.
Dr. Anderson: -- from my prior service in the
building. Her love and support make everything worthwhile.
My professional experience has helped prepare me for
this opportunity.

I served in the Office of the Secretary of Defense from 24 2001 to 2009, initially working in legislative affairs. I 25 then spent most of my appointment working policy issues in

international security affairs. I served as Country
 Director, Israel, and coordinated defense cooperation
 activities for a key United States ally. I also served as
 Director, Middle East, and gained a broader perspective on
 regional dynamics.

I have also taught national security topics at several civilian and military educational institutions, to include the George C. Marshall Center for European Security Studies in Germany. Living overseas and working at this splendid institution reinforced to me the importance of working with allies and partners.

I have authored or in some cases co-authored a wide range of strategy-related topics throughout my career. These topics include the threat of weapons of mass destruction, theater and national missile defense, security alliances, great power competition, and national defense strategy.

In my current job at Marine Corps University, I am the chief academic officer for educational programs that reach thousands of marines annually. In this capacity, I help officers and enlisted personnel develop the critical and creative thinking skills necessary to prevail on future battlefields.

I served 3 years on active duty as a Marine Corps officer in the late 1980s, an experience that indelibly

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imprinted upon me the importance of teamwork and esprit de
 corps. Nothing is more inspiring than working alongside
 fellow professionals in defense of the country's interests
 and values.

5 The Department of Defense issued its National Defense Strategy in January. This document clearly outlines 6 7 priorities and concepts needed to ensure our nation's 8 competitive advantages amid the exacting demands of great power competition. If confirmed, I will do my level best to 9 10 help implement this strategy in a cost effective and 11 affordable manner. The men and women in uniform, as well as 12 the citizens of our great nation deserve no less from their 13 senior defense leaders. 14 I look forward to your questions. [The prepared statement of Dr. Anderson follows:] 15 16 17 18 19 20 21 22 23 24

1	Senator	Inhofe:	Thank yo	u, Dr.	Anderson.
2	And Dr.	Verdon?			
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1STATEMENT OF DR. CHARLES P. VERDON TO BE DEPUTY2ADMINISTRATOR FOR DEFENSE PROGRAMS, NATIONAL NUCLEAR

SECURITY ADMINISTRATION

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4 Dr. Verdon: Senator Inhofe, Ranking Member Reed, 5 distinguished members of the committee, it is a privilege to appear before you today. I am honored by this opportunity б 7 serve my country and thank President Trump and Secretary Perry for placing their trust and confidence in me, putting 8 forward my nomination as Deputy Administrator for Defense 9 10 Programs within the Department of Energy's National Nuclear Security Administration. 11

Unfortunately, my family is unable to be here today but watching from California are my wife Joyce, my son Ryan, and his wife Camille. I am grateful to them and the rest of my family for their tireless support over the years and as I prepared for today's hearing.

17 The DOE and NNSA have the nation's responsibility of 18 ensuring a safe, secure, and effective U.S. nuclear stockpile. To do this, the NNSA must maintain confidence in 19 20 the state of the current stockpile, carry out life extension 21 programs as required, and ensure that the nation has the 22 capabilities, the underpinning science, technologies, and 23 engineering, the facilities and workforce necessary to 24 sustain the U.S. nuclear stockpile and hence the deterrent for the long term. 25

1 In addition, NNSA pays a great deal of attention to the 2 safety and security of the weapons and associated materials throughout their life cycle. Robust security protects 3 weapons and weapons materials at each of the NNSA sites and 4 5 through securely transporting materials and weapons between 6 NNSA facilities and NNSA facilities and military locations. 7 My top priority, if confirmed, is the effective execution of the nuclear weapons activities within the NNSA. 8 Success in carrying out this enduring mission requires 9 10 working closely with NNSA Administrator Gordon-Hagerty and the close coordination and integration across the NNSA 11 12 federal workforce, NNSA laboratories and production sites, 13 and the Department of Defense. Of particular importance is 14 the ongoing stockpile modernization effort. The successful execution of this effort requires the careful balancing, 15 16 planning, and execution of NNSA's production infrastructure 17 modernization with the stockpile modernization. In 18 addition, continued development of the science, technology, 19 and engineering required to sustain confidence in our 20 nuclear deterrent must also be maintained. 21 I look forward to executing the vision expressed by 22 Administrator Gordon-Hagerty to ensure a partnership between 23 NNSA, the laboratories and production sites and with the 24 It will take all of us working together to continue to DOD. 25 ensure maintaining a modern and appropriately tailored

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1 nuclear deterrent in an ever-changing geopolitical

2 environment.

I believe my work experience provides a unique skill 3 set of more than 30 years of experience and vision to the 4 5 position. During this time, I have gained experience ranging from an individual technical contributor to the 6 7 leader of the nuclear weapons program at Lawrence Livermore National Laboratory. I have firsthand knowledge and 8 experience working with some of NNSA's most talented and 9 dedicated scientists, engineers, technicians, and safety and 10 security professionals and with very dedicated and 11 12 professional individuals within the Department of Defense. 13 I have devoted my career to the national security mission. 14 To lead the nuclear weapons activities within NNSA, if 15 confirmed, would be the highest honor. I will work to 16 ensure our nation's stockpile remains safe, secure, and 17 effective, modernization of the stockpile is well planned 18 and being actively executed, and that the capabilities, 19 facilities, and workforce continue to be developed and 20 matured to ensure the long-term viability of our nuclear 21 deterrent.

I thank you again for inviting me to appear before this committee today. I am prepared to answer any questions you have and, if confirmed, to address questions you may have in the future.

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1	[The	prepared	statement	of	Dr.	Verdon	follows:]
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Senator Inhofe: Thank you, Dr. Verdon.

2 Let me ask a question of Dr. Porter. I alluded to 3 this. You know, when we are out talking to the American 4 people, there is this assumption that the United States has 5 the best of everything. In fact, we do not. And we have 6 gone through a period of starvation where we really need to 7 get out of this thing. And you are fully aware of this, Dr. Porter. In such areas as hypersonics, we are actually 8 behind China and Russia at this time. In the areas of 9 10 artillery -- and normally artillery is measured with rapid fire and range -- both China and Russia are ahead of us in 11 12 that area. Our nuclear triad -- we had not done any 13 modernization in a long period of time, while they have. 14 When you look at these things, how do you view these 15 things in terms of what do you want to do to make sure that 16 we get back in the position that the American people think 17 we are in right now?

Dr. Porter: So, Senator, I think you have highlighted very succinctly the fundamental frustration that a lot of us share. It is why I appear before you today, hopefully to help to contribute to solutions to this.

I believe actually, as I said in my opening remarks, we do have a tremendous amount of talent throughout our enterprise. Our universities are world-class, as we all know. Our DOD laboratories and national laboratories more

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1 broadly, including the DOE, are fantastic.

2 It is a question of how do you focus that energy and that talent and create a sense of urgency that I believe we 3 have lost. Dr. Griffin has spoken publicly about we have 4 5 been on a holiday, and you mentioned the starvation. Ι 6 think we have gotten too comfortable being in first, and 7 that is not a good strategy. So we have got to get back to the business of excellence and urgency and focus on mission, 8 and that is hopefully what I will be able to do. 9

10 Senator Inhofe: You know, it is pretty obvious. We 11 had a hearing not too long ago in a subcommittee hearing. 12 We had all the vices in front of us, and they came to the 13 conclusion we are kind of back to the old hollow force days 14 and we are going to have to address that.

15 And a very similar thing, Mr. Slavonic. Right now we 16 are talking about increasing the Navy 7,500. The problem 17 that you are going to have is you have got to make this attractive and go after these people because we do not want 18 19 to find ourselves in the position -- and those of us would 20 all agree with this on this committee -- that in order to 21 reach that number, you are going to have to lower standards 22 or lower quality. Have you thought about this?

23 Mr. Slavonic: Yes, Senator. There is no way in my 24 opinion that we should ever lower our standards. We have to 25 somehow work through the process and figure out how we bring

in the best and brightest to the Navy and Marine Corps. We are in a war for talent. I think between the age group of 17 and 24, only 25 percent of that age group is qualified to join the military. So it becomes a very big challenge to the Navy and Marine Corps to find the best and brightest and bring them in to serve the Navy and Marine Corps.

7 Senator Inhofe: Yes. Would you assure this committee 8 that in the event it looks like that is the only 9 alternative, you come to us so that if it is resources or 10 whatever would be necessary, just to make sure we do not

11 drop that quality?

12 Mr. Slavonic: Yes, sir. You have my word.

13 Senator Inhofe: Good.

14 Dr. Anderson, just set aside Russia for a minute and 15 look at China. Several of us, Senator Ernst, Senator 16 Rounds, and I, were in the South China Sea and seeing what 17 is happening right now with China. The perception that is 18 out there -- the seven islands that we look at -- it is no 19 secret that these islands are there with armaments. It is 20 almost as if they are preparing for World War III. And when 21 we talked to -- and we did -- we talked to our allies there. 22 I am talking about the Philippines, Taiwan, and other areas. 23 It is almost as if they are making a choice. If World War 24 III comes, which side are we going to be on?

25 Are you really sensitive to the perception that is out

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1 there of what China is doing, whether or not that is 2 accurate?

Dr. Anderson: Senator, I think the Chinese 3 militarization of the islands that you reference in the 4 South China Sea is very concerning. Absolutely. They are, 5 according to press reports, selling anti-ship missiles and б 7 anti-aircraft weapons on several of those islands. 8 I think this administration and previous administrations have made clear U.S. commitment to our 9 10 security commitments in the Indo-Pacific region, our 11 commitment with South Korea, with Japan, with the 12 Philippines, with New Zealand, with Australia and that we 13 intend to honor those commitments. Thanks to the work of 14 Congress with the omnibus bill and the 2-year agreement, there is a sizeable and sufficient funding stream in place 15 16 for the Department of Defense to increase some of its 17 capabilities in the Pacific theater. And by doing this with 18 respect to aircraft and some munitions and increasing our 19 capabilities, the P-8 Poseidon for example, Virginia payload 20 on an attack submarine, that will strengthen deterrence. 21 That will send a message both to our potential foes and our 22 allies as well that we are committed to their defense and to 23 defend our interests in that region.

24 Senator Inhofe: That is a good answer.

25 I have questions for the other two, but with respect

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1 for my other members here, I will do that for the record.
2 Senator Reed?

3 Senator Reed: Well, thank you very much, Mr. Chairman.
4 Again, because of the short time limit, I may not be
5 able to reach all of you. So some people can relax.

6 But, Dr. Porter, let me follow up on the chairman's 7 comments, Senator Inhofe's comments, about the need for 8 meeting and exceeding particularly the Chinese when it comes 9 to quantum computing and artificial intelligence. They are 10 putting on a nationwide effort -- billions of dollars, 11 concerted, coordinated. My sense is we do not have that 12 same kind of coordinated activity today.

You will be in the Department of Defense. You will be leading our efforts, but we have got private research universities. We have a host of public companies that are actually spending more on this research than we are. We have to coordinate those together.

And then we have the issue of human capital. Many of the scientists that are coming in and helping are not only not Americans, but some of them are from countries like China and Russia and Europe, et cetera.

22 So this is sort of stepping back from your specific 23 role, but how are we going to get this national Manhattan 24 Project for cyber AI underway? Will you sort of try to move 25 that from your position?

1 Dr. Porter: So, Senator, yes. That is quite an 2 expansive challenge, as you just described very well. Senator Reed: It is, I think, a challenge though. 3 Dr. Porter: It is certainly a challenge. 4 5 And as you know, the focus on things like machine learning, hypersonics, cyber, all of those elements -- the 6 7 ingredients are here. We have got to focus them. As you said, we have got to identify problems that are big and 8 clear and gravitate the talent towards solving those 9 10 problems. We do have significant amount of talent. As you 11 said, our private sector is frankly crushing it in many 12 aspects of the machine learning domain. We have got to 13 figure out how to get them to work on our problems rather 14 than just the problems that they are solving. How do we 15 harness that talent? That is the key challenge I think we 16 have. 17 Senator Reed: And that might require you informing 18 this committee -- and frankly, we would have to share or 19 collaborate with probably other committees -- to convince, 20 persuade, or even require that this cooperation take place. 21 So we would look for your insights very much.

22 Dr. Porter: Absolutely, Senator.

23 Senator Reed: Thank you.

24 Mr. Stewart, one of the issues -- and Admiral Slavonic,

25 both -- and my time is limited. We all know we have this

1 25 percent of young people are qualified for the crisis. 2 service. It is tough. You are competing against big companies. You are competing against lots of factors. I 3 know Admiral Slavonic indicated that he was not willing to 4 5 reduce standards. But if we look ahead now at some of the 6 jobs of the future in the military, when you were flying 7 C-141's back in the 1970s, I do not think you thought there would be a whole bunch of folks sitting in trailers in 8 Nevada flying attack --9

10 Mr. Stewart: Drones.

Senator Reed: Yes, attack aircraft. Maybe you did.
 Mr. Stewart: Not at that time.

13 Senator Reed: Yes. So I think if we look ahead, we 14 just have to think about it. Are there some areas that do 15 not require the same kind of physical dexterity or something 16 else where, in fact, these individuals could be very 17 valuable components of the military?

18 Mr. Stewart: Senator, thanks for the question.

19 I think in many cases we can look at the type of 20 individuals that we bring in as well. Granted, some of the 21 individuals we are looking at are not necessarily going to 22 work in the military environment, but perhaps will work in 23 the civilian environment. And so as a total force, we have 24 to look at not only what is required for the military piece 25 but overall for the mission. And so, if confirmed, Senator,

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I would look forward to going at and looking at the total
 picture, to include the military, the reserve component, and
 the civilian piece, along with the contractors.

4 So I think we have to be creative. I think we have 5 been very, very proactive on doing that. But I think that 6 there is more work to be done.

7 Senator Reed: Thank you.

8 And just a moment, Admiral Slavonic, please.

Mr. Slavonic: Yes, sir. Senator, when you wear the 9 10 uniform, I feel -- I deal in the world of perception, and when the public sees individuals that are not up to the 11 12 standards of others -- certainly in the Marine Corps -- then 13 I just think that is a negative for us as we move forward. 14 But as Mr. Stewart said, if we look at other areas possibly 15 where you will not wear the uniform, then I think, yes, 16 there is a possibility to look at other options.

Senator Reed: I think we are going to have to deal with that issue. It is just a question of demographics and changing technologies. Both of those.

20 My time is expiring. And I will follow up with

21 questions, Dr. Anderson, Dr. Verdon.

22 Again, thank you for your commitment. Thank you

23 already for your service.

24 And thank you, Mr. Chairman.

25 Senator Inhofe: Thank you, Senator Reed.

1 Senator Ernst?

2 Senator Ernst: Thank you, Mr. Chair.

And thanks to all of you for accepting this nomination, 3 and we are excited about the opportunities that you have. 4 5 Mr. Stewart, I would like to start with you, please. If confirmed as Assistant Secretary of Defense for Manpower б 7 and Reserve Affairs, the DOD EA schools will fall within your portfolio. And as you know, there have been some 8 pretty alarming recent news articles highlighting some 9 10 issues about how there are juvenile-on-juvenile crimes and how they have been tracked and handled by both the schools 11 12 and law enforcement. I understand that the DOD has been 13 actively working on fixing things on their end particularly 14 with regard to how misconduct is tracked and recorded. And 15 I did recently sit down with some of those DOD officials, 16 and they have assured me that this will be fixed. 17 If confirmed, can I have your assurance that you will 18 continue to review and improve processes relating to how 19 juvenile crimes are tracked and coordinated with law 20 enforcement? This is a very important issue to me, to other 21 members on this committee, and I do believe that our DOD 22 families deserve better than what we have seen in the past. 23 So can you give me that assurance and then maybe walk me 24 through some of the ideas on how we might be able to fix

25 this problem?

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1 Mr. Stewart: Senator, I would be happy to.

We need to take care of our dependents, and it is very,
 very important that we do so. Thank you, ma'am.

4 Senator Ernst: Are you aware of the incidents that5 have occurred at DOD schools?

6 Mr. Stewart: I was informed. I have to get more 7 information on it. That is an important issue that, as you 8 said, they are already working on. And if confirmed, I will 9 be read in on what they have done so far. But more needs to 10 be done, and we need to take care of those dependents.

11 Senator Ernst: Absolutely. It is concerning. We want 12 to make sure that we are taking care of those juveniles, 13 especially when it is juvenile against juvenile crimes, not 14 only that we are tracking it appropriately but it is being reported and dealt with as well. So I think we have lost 15 16 some of those families through the cracks. We have lost 17 some of those children through the cracks. And it should 18 not be occurring. So we will make sure that we follow up 19 with you.

20 Mr. Stewart: Yes, ma'am.

21 Senator Ernst: Assuming confirmation, we will be 22 following up with you.

23 Dr. Porter, as chairman of the Emerging Threats and 24 Capabilities Subcommittee, I have had the pleasure of 25 visiting with Dr. Griffin several times over the course of

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the last several months about our long-term strategic competition with China. And one of the discussion points that has been raised over and over again is the fact that when we are competing with China, they truly are a country that does not care about the formalities or the niceties of our acquisition process.

7 Just so we thoroughly understand the gravity of the situation, can you illustrate what China-U.S. military 8 overmatch will look like if we do not find a way to maximize 9 10 agility and efficiency within our own acquisitions process? 11 Dr. Porter: It is certainly a daunting prospect to 12 consider. I believe we would have a real problem if we do 13 not start getting in the business of pushing ourselves much 14 faster. I think you have heard Dr. Griffin talk a lot about 15 the speed, that we need to move much more quickly. They 16 have got a head start on us in hypersonics. You have 17 alluded to that. They have got a head start on us in some 18 areas as well. But we have to recognize that we can catch 19 up if we are deliberate and focused.

The spirit of experimentation that I have talked about in my opening statement is a real critical component of that, the ability to fail and failure not being something that is seen as the end of your career, but something that is seen that you learn and you keep going, and ultimately you succeed. Failure on the road to success is obviously

not failure. But I think in the DOD, particularly in the R&E environment, there has been a culture of extreme risk aversion, and that has been stifling to innovation. Those things do not go together. Risk aversion and innovation cannot coexist. So we need to get back to the spirit of experimentation that the DOD used to have, and I believe we can do that.

8 Senator Ernst: I appreciate that very much. And I do 9 also believe that we should be taking prudent risk to move 10 forward and move forward quickly.

Just very quickly, I am almost out of time, but maybe just the top priority, what we should be investing in right now.

14 Dr. Porter: So I would agree that hypersonics is at 15 the top of the list.

16 Senator Ernst: Good. Thank you very much.

17 Thank you, Mr. Chair.

18 Senator Inhofe: Thank you, Senator Ernst.

19 Senator King?

20 Senator King: First, seeing you before us today in the 21 positions you are in, I have to tell a story of when I was 22 on a staff of a committee here in the Senate 40 years ago 23 and I called the Office of Management and Budget for a 24 witness for a hearing. And they said we are sending the 25 Deputy Under Secretary of something or other, and I said I

1 do not really understand the titles. Who is this person? 2 And the fellow gave me an answer which, if I ever write a book about Washington, this will be the title. He said he 3 is at the highest level where they still know anything. 4 5 [Laughter.] Senator King: And that is you guys. 6 7 By the way, for the record, we are all above that level now. So I really appreciate your being here because you are 8 doing such important work. 9 10 And, Mr. Slavonic, I just want to reassure you -- you 11 may have been uneasy about this -- that your association 12 with Senator Lankford will not prejudice my vote on your 13 nomination. 14 Mr. Slavonic: Thank you for that, sir. 15 Senator King: Yes, sir. I am going to overlook that. 16 Dr. Porter, you just said something that, taken out of 17 context, could -- you said the Pentagon must move quickly. Most people would not think that was a phrase that they had 18 19 ever heard before that made much sense. How do we implement 20 that? That is a nice thing to talk about. You worked with In-Q-Tel. One of the most disturbing hearings we had was 21 22 about a year ago we had some people from Silicon Valley. 23 They basically said we have given up dealing with the 24 Pentagon. It is too big. It is too slow. We do not even 25 make proposals anymore. How do we break through that?

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Because that is where a lot of the innovation is going to
 come.

3 Dr. Porter: It is where a lot of the innovation comes 4 from, and I think their frustrations are very 5 understandable. We have talked a lot about this 6 bureaucracy. The risk aversion I talked about is anathema 7 to them. The startup community is all about taking risk, 8 learning quickly, and then pivoting to make sure you are 9 getting on the track to success.

10 Senator King: Well, are you going to implement a new 11 strategy? I mean, just saying we are going to take more 12 risks and we are going to be quicker, I need to see and 13 understand a new doctrine of how you are going to deal with 14 these issues.

15 Dr. Porter: Well, I think it starts with being clear 16 that an aversion to failure is not acceptable. We have to 17 reset the culture in the R&E community. We have to be very 18 clear that that is how we will approach. Our problem solving will be faster paced. We will conduct experiments 19 20 on a regular basis. We will not punish those who fail, but 21 rather we will appreciate their efforts to push the 22 boundaries. If we get to a point where we are not 23 continuing to push ourselves and we are comfortable and we 24 are in that status quo, then that is --

25 Senator King: I think you also have to deal with the

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bureaucratic form. You know, pretend you are an applicant, and how long is the form? How long does it take to fill out? What is the information necessary? What are the security -- we have got a 900,000-person backlog in security clearances in this government. I want to put some urgency on this.

7 By the way, in my office I often find it salutary to remind people that Eisenhower retook Europe in 11 months. 8 That should be about the maximum for getting things done. 9 10 Mr. Stewart, we have talked about this -- and I think, 11 Mr. Slavonic, we have talked about the demographic 12 challenge. This is not going to be business as usual. We 13 are facing a negative demographic time bomb in terms of 14 young people coming up, 75 percent of whom, at least by 15 current standards, are not qualified for the military. 16 Again, I want to push you for more specifics.

17 I think Senator Reed had an interesting idea. It may 18 be that if you are going to have somebody in Cyber Command 19 whose job it is to work on a computer all day, maybe they do 20 not need to meet the physical requirements. Maybe they can be disabled in some way, for example. I think we are going 21 22 to have to really think differently about how we are 23 recruiting because we are just not going to be able to 24 maintain the force.

25 Mr. Stewart: Senator, I agree with you, and that is

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1 why I mentioned the fact that there are other avenues to 2 look at, for instance, looking at the civilian side and looking at the reserve components. When you put together a 3 force, you need to look at the overall personnel available 4 5 to you. And so there are ways in which you can go ahead and structure the force such that you can adjust based on the б 7 demographics that you have. But long-term, we have to go 8 ahead and look into how to go ahead and fix that problem.

9 Senator King: It is not going to be just a question of 10 more bonuses or more recruiters. It has got to be 11 qualitatively different.

Mr. Slavonic, I presume in the Navy one of the ways toapproach this is ships that require fewer sailors.

Mr. Slavonic: Yes, Senator, unmanned surface, subsurface vehicles, and I believe aircraft as well. So I think that is certainly an out-of-the-box type of thought process. I know it has been talked about, but you do have to have people that work that particular box to make those things work.

20 Senator King: I know that there are cases where we 21 have ships where historically have taken a crew of 300-350 22 that now the newer versions can have 150, and I think that 23 is one of the directions we have to think about.

Mr. Stewart: I would agree with you, Senator. Yes,sir.

Senator King: Thank you. I appreciate all of your
 willingness to take on this challenge. It is incredibly
 important. And what you are doing is very meaningful to the
 country and I congratulate you and thank you for your
 service.

6 Thank you, Mr. Chairman.

7 Senator Inhofe: Thank you, Senator King.

8 Senator Rounds?

9 Senator Rounds: Thank you, Mr. Chairman.

10 First of all, thank you to all of you for offering your 11 services to our country once again.

Dr. Porter, I think we have started down this line a couple times now, and I just want to pursue it a little bit from the point of trying to explain to an American public that sometimes we talk words but they do not really mean anything unless you are in it every day. Hypersonics is one of them, cases where something can simply move more than five times as fast as the speed of sound.

What does that mean in terms of the need? And what are the threats to our country if China and Russia have a degree of capabilities greater than ours just in hypersonics? What does that mean to the average American?

Dr. Porter: So what that means to the average Americanis that they can hold our forces at risk.

25 Senator Rounds: Why? What does it do?

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Dr. Porter: Because by being able to move, as you said, at least five times faster than the speed of sound, which to put that in terms, that is a mile per second. That is fast.

5 Senator Rounds: So we are talking about weapon
6 systems --

7 Dr. Porter: Weapon systems that can move so fast that 8 you cannot get them essentially and you cannot see them. 9 Senator Rounds: We are not talking about a manned 10 vehicle necessarily. Are we?

Dr. Porter: Oh, no, no. We are talking about unmanned weapon systems. We cannot see them until it is too late, and then we cannot get them because they can maneuver so quickly. That kind of weapon should be very scary to people.

16 Senator Rounds: Would it be fair to say that today we 17 have peer adversaries who have more in-depth knowledge of 18 hypersonics than we do?

Dr. Porter: I would say that is probably a fairassumption. I am not privy to all of the knowledge.

21 Senator Rounds: Would it be fair to say that they are 22 farther along in the deployment of hypersonics than we are? 23 Dr. Porter: I would put it this way, sir. I am 24 concerned that they might be based on what I know, what is

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publicly available, and what I have been aware of in

1 watching this issue.

2 Senator Rounds: So what does that do in terms of the risk to our forces? Let us take an example in the Pacific. 3 What does it mean to an aircraft carrier that is 1,500 miles 4 5 away from the coast of China? 6 Dr. Porter: Right. If you cannot see it coming, which 7 we would not be able to see it coming right now, if they were to launch hypersonic that far in advance, you have got 8 a problem seeing it and then you got a problem of shooting 9 10 it down before it gets to you. 11 Senator Rounds: So what you are saying is for our men 12 and women that are out there right now, in the case of the 13 deployment of a hypersonic weapon, it would not be a fair 14 fight. 15 Dr. Porter: No. That is my concern, sir. 16 Senator Rounds: And what we really want is --17 Dr. Porter: We want to be overmatched. We want to be 18 over them. Senator Rounds: So what we want is the case of where 19 20 our men and women never enter into a fair fight. 21 Dr. Porter: That is correct. 22 Senator Rounds: But it is not with the other folks 23 having the advantage. 24 Dr. Porter: That is correct. 25 Senator Rounds: And that is what this is all about.

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1 Dr. Porter: That is what this is all about, and 2 multiply that on some of the other technologies that people 3 have raised as well.

Senator Rounds: It is not just hypersonics. 4 5 Dr. Porter: It is not just hypersonics. Senator Rounds: It is space. 6 7 Dr. Porter: It is space. 8 Senator Rounds: What about space? What is so 9 important about space right now to the American public? 10 Dr. Porter: So for decades, we have assumed that space is uncontested environment. 11 12 Senator Rounds: Are we at war in space today? 13 Dr. Porter: We have a challenge in that our assets are 14 at risk, and they will be at risk if we do not -- and they will continue to be at risk if we do not address that. 15 16 Senator Rounds: Our assets in space today are at risk, 17 and they are at risk because is space a contested

18 environment?

Dr. Porter: I believe the Russians and the Chinese believe that they need to ensure that they hold our assets at risk, including those in space, and so they are taking action to ensure they can do that.

23 Senator Rounds: Would it be fair to say that we look
24 at space different than what Russia and China do?

25 Dr. Porter: That I do not know because I do not know

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1 enough about how they think about space, but I think we need
2 to be --

3 Senator Rounds: Would you say there is evidence that 4 they consider space to be a place where it is a domain in 5 which war will be fought?

6 Dr. Porter: I think they see it as a domain where they 7 need to take away our advantage in space that we currently 8 enjoy.

9 Senator Rounds: Thank you, Dr. Porter.

10 Dr. Anderson, a number of us on this committee truly believe that we have an issue with regard to our doctrines 11 12 concerning cyber war and a policy gap with regard to the 13 employment of our considerable capabilities in the cyber 14 domain. This problem is compounded by the fact that there 15 is no federal entity that provides unity to the effort in 16 both defense of our cyber capabilities on both the DOD level 17 and also in the American public's level. And we do not have a single point of accountability for the deterrence against 18 19 those attacks, and should deterrence fail the detection of 20 an attack, the attribution of where it comes from and a 21 response in terms of being offensively capable.

22 What is your perspective in terms of how we should 23 synchronize cyber operations across the interagency? 24 Dr. Anderson: Senator, I think the lines of

25 responsibility for DOD at one level are pretty clear. DOD

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has to protect its own networks from cyber intrusion, cyber attacks. And I know the Department has been working hard on this. They have a series, I think, of 130 out of 133 cyber teams that are now working to defend our own networks.

5 Beyond that, the Department of Defense also has a role to play in defending at least some of the infrastructure, б 7 the civilian infrastructure, and here the lines of responsibility also fall to the Department of Homeland 8 Security with the Department of Defense in support. And 9 10 this is a fairly new area for the Department of Defense, and I understand that some of those specific delineations are 11 12 still being worked out.

13 Senator Rounds: Is it fair to say that we have work to 14 do in that area?

15 Dr. Anderson: Yes, absolutely.

16 Senator Rounds: Thank you.

17 Thank you, Mr. Chairman.

18 Senator Inhofe: Thank you, Senator Rounds.

19 Senator Kaine?

20 Senator Kaine: Thank you, Mr. Chair.

21 And thank you to our witnesses. Congratulations on

22 your service and on your nominations.

23 Mr. Slavonic and Mr. Stewart, I want to talk to you

24 about an important aspect of overall manpower, which is our

25 military families, especially military spouses.

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1 When I was elected to the Senate and came in in 2013, 2 we had a higher unemployment rate among veterans than the national average, especially Iraq and Afghan War veterans 3 who were enlisted. This committee has done a lot of work on 4 5 that issue and so have our employers, so has the Pentagon. 6 And I am proud to say here 5 years later the unemployment 7 rate for veterans from this era is now below the national 8 average. We made progress by focusing on it.

And yet, the unemployment rate for our military spouses 9 10 is two to three to four times higher than the national average. It is a little bit difficult to determine because 11 12 we do not even care enough about it to measure it. The 13 Bureau of Labor Statistics does measure veterans 14 unemployment. They do not measure military spouse 15 unemployment. So we have to do that through surveys to try 16 determine what the unemployment rate is.

17 The reasons for military spouse un- or under-employment 18 are pretty easy to grasp: frequent moves, often at odd 19 times of the year. Spouses might move to a State who have a 20 profession or career with a credential -- it could be a 21 cosmetologist, real estate agent, lawyer, teacher -- that 22 the license may not immediately transfer or there may be a 23 cost to transfer the license that can be prohibitive for 24 some.

25 I have introduced two bills with bipartisan colleagues

on this committee -- one, the Military Spouse Employment
Act; and the other, Jobs and Child Care for Military
Families Act -- to try to tackle four or five of the key
complaints I hear from military spouses and clear some
obstacles out of the way. My hope is that colleagues and I
might find an accord and enable some of these to be included
in the NDAA.

8 But talk a little bit about how you would focus on this 9 issue of military spouses, should you be confirmed in these 10 manpower positions to which you are nominated.

11 Mr. Stewart: Would you like me to go first, Senator? 12 Senator Kaine: Please, yes. That would be great. 13 Mr. Stewart: So the spouses, of course, if they are 14 not taken care of, then ultimately there is going to be a 15 problem with retention because if the family is not happy and if the family readiness is not taken care of, then 16 17 ultimately that will have a severe impact on the retention 18 of these forces that we are trying to go ahead and keep and ultimately recruit as well. And so ultimately I would, if 19 20 confirmed, love to see this legislation and work to go ahead 21 and make sure that the spouses are taken care of.

22 Senator Kaine: Mr. Slavonic?

23 Mr. Slavonic: Yes, sir. Spouses are a key to the 24 well-being of the service member. And we must make sure

25 that when they are deployed, whether at sea, Iraq,

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1 Afghanistan, wherever the conflict may be, that they have 2 got peace and comfort to know, one, that their spouse and family are taken care of. And in this case that you 3 address, if the spouse is able to be employed, that is very 4 5 important, and we need to find a way, at least speaking for 6 the Navy and Marine Corps, Department of the Navy, I need to 7 learn more about how the Navy does things so that I have a better idea, if confirmed, to be able to maybe come back and 8 9 have a conversation with you.

And I know Norfolk, Virginia has a very large Navy presence, and I am sure you have talked to a lot of those individuals there. So I have not been to Norfolk in a long time, so I need to get up to speed on a lot of areas, and if confirmed, I will certainly support whatever --

15 Senator Kaine: I would love to go there together.

16 There is a lot to see. That would be great.

17 Mr. Slavonic: Yes, sir.

Senator Kaine: I have a boy in the Marine Corps who, when he got in, was single. When he did his first re-up after 4 years was single. But now he is married and he has a decision coming up in a year or 2. And it is a very different kind of a decision when you are making a decision and trying to grapple with spousal issues. I really see that in my own family.

25 Dr. Porter, I have a question for you. You know, we

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1 talk strategy here a lot, and I have always been impressed 2 with this idea of an offset strategy where we use our own 3 unique technological capacities to give us strategic advantages. Maybe if we are short in some area, we can use 4 5 unique technological capacities to gain an edge in others. 6 But that whole notion of the offset strategy to me 7 seems to be maybe a little bit passe since our near-peer competitors are basically pursuing exactly the same 8 technologies as we are. And I am wondering if there is much 9 10 that is really an offset these days.

Is "offset" the proper term? Are we still doing things different than others, or are we basically just in a linear arms race across all the technological areas with our nation state competitors?

Dr. Porter: So, Senator, I think you have hit on the 15 16 way to think about it, which is we have access to a lot of 17 the same technologies. Can we be clever in how we use them 18 in different ways? I have personally seen in my own 19 experience that really great innovation occurs when you 20 bring different disciplines together in novel ways. So we 21 have talked a lot about artificial intelligence. Sometimes 22 people stovepipe how they think about that versus, let us 23 say, cybersecurity or biotechnology. And it turns out from 24 research that I have actually seen recently in my own job 25 when you bring those together, you can get very powerful

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1 solutions. So I think the creativity the American mind 2 brings to things or the natural tendency we have to be holistic in how we look at problems can give us that 3 strategic advantage. 4 5 Senator Kaine: And you have been at DARPA and NASA and IARPA, as well as in the private sector. 6 7 Dr. Porter: Yes, sir. Senator Kaine: So all of those are institutions that 8 are about this sort of holistic reaching across the silos 9 10 problem solving. Well, I think you are very well qualified for this position and look forward to supporting you. 11 12 Thank you, Mr. Chair. 13 Dr. Porter: Thank you. 14 Senator Inhofe: Thank you, Senator Kaine. Senator Heinrich? 15 16 Senator Heinrich: Thank you, Mr. Chairman. 17 Mr. Chairman, as soon as this afternoon, the NNSA is 18 expected to announce its plan to halt the long-planned 19 modernization of our nuclear infrastructure for plutonium 20 pit production. This will set back our military's life 21 extension program by years, stretch the workforce to its 22 limits, and waste billions of dollars on another plan that 23 will, in all likelihood, never come to fruition. 24 As we all know on this committee, the NNSA's record of 25 construction projects has been abysmal over the years.

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Twice before the NNSA started down a path to produce pits that later had to be terminated. I expect the NNSA will announce today a new plutonium strategy that is not justified by the data and will once again be a giant waste of taxpayer time and money.

б DOE needs to disclose a legitimate per-pit lifecycle cost of each of the options on the table. I think if they 7 do that, it will be clear that the only choice that actually 8 meets our cost and schedule requirements is to move forward 9 10 immediately with modernization at Los Alamos as originally endorsed by both Congress and the Nuclear Weapons Council. 11 12 Nuclear weapons are dangerous. They are serious. They are 13 not political currency or checker pieces that can be picked 14 up and moved around based on political expediency.

15 Dr. Verdon, you have been nominated to a position that 16 will be responsible for this program, and you and the NNSA 17 need to know that this ill-conceived plan defies logic on 18 all accounts and I believe will be rejected. And I believe 19 that DOE needs to go back to the drawing board and fix this. 20 Dr. Porter, I have a couple of questions for you. I agree with your advance statements that it is critical that 21 22 lab directors have the ability to adapt to rapidly changing 23 environments and particularly when it comes to actually shaping their workforce. 24

25 Do you agree that it makes sense for lab directors to

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have direct hiring authority over the personnel that they
 oversee rather than having to go all the way to headquarters
 for approval on those personnel decisions?

4 Dr. Porter: So, Senator, I am not as deep into that 5 particular topic as I need to be, and if confirmed, I would 6 like to get into that much more deeply because I agree with 7 you that the flexibility is certainly necessary, 8 particularly in today's environment where it is so 9 competitive to hire talent.

10 Senator Heinrich: We are constantly in a position of 11 competing for talent with Silicon Valley, with many other 12 entities that can offer a lot in terms of incentives.

This committee, to its credit, has provided direct hiring authorities, but implementation, I have to say, has been painfully slow. So, if confirmed, I would just urge you to look at those policies.

We had an Emerging Threats and Capabilities Subcommittee hearing a few weeks ago, and Dr. Griffin laid out an ambitious plan for developing and fielding a number of directed energy weapons in the next decade. Those speak directly to the issues of a new offset, a third offset, however you want to phrase it, that Senator Kaine raised in

23 his questions.

24 Do you support the development of directed energy 25 weapon systems, and what are your thoughts in particular on

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1 that line of research?

2 Dr. Porter: Yes, Senator, I do. I actually was able to read the transcripts of that hearing, and I think Dr. 3 Griffin spoke very eloquently about the need to address that 4 5 and across the board, as he said, ground, air-based. How do 6 we address that problem, and yes, I support it completely. 7 Senator Heinrich: How do you think we can establish -and you touched on this a little bit and I appreciate it. 8 We cannot punish failure because when you are testing to 9 10 failure, you are actually testing the limits. We need to do 11 that.

12 Dr. Porter: Absolutely.

Senator Heinrich: How do we establish a culture of persistence that does not kill a program with great potential at the first technological challenge or setback? Dr. Porter: I think it comes from leadership from the top. People will follow how their leaders set the standards for expectations. If the leadership at the top allows for that failure, that experimentation, the pushing the

20 boundaries, then it will flow down.

21 Senator Heinrich: I was also encouraged by your 22 comments on establishing a culture of execution that really 23 embraces the use of disciplined experimentation and 24 prototyping to quickly drive down technological risk, and

25 when you do that, sometimes you fail.

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1 Dr. Porter: Correct.

2 Senator Heinrich: That is part of the process. But 3 all too often, emerging technologies do not make it from one 4 side of the so-called valley of death to the other, but they 5 die due to endless pursuit of perfection in the lab not 6 because they are not good technologies and useful and 7 fieldable technologies.

8 So what kind of policies are you thinking about that 9 could encourage operational prototyping, increase speed of 10 delivery, get things out the other side and into the hands 11 of an actual operator?

12 Dr. Porter: So this is something I have a great 13 passion for that I intend to work, if confirmed, with the 14 under secretary. This is something he shares the same 15 passion for, and I think we do need to look how do we 16 encourage, how do we incentivize that behavior you are 17 alluding to. Stop polishing the apple. It is good enough. 18 You got to get it out. As a former scientist, I understand the compulsion for perfection. However, it can lead to, 19 20 obviously, the reality is, if you have delivered perfection 21 too late, it is no good.

22 Senator Heinrich: Thank you.

23 Thank you, Mr. Chair.

24 Senator Inhofe: Thank you, Senator Heinrich.

25 Senator Sullivan?

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Senator Sullivan: Thank you, Mr. Chairman.

2 And I want to congratulate the nominees and their 3 families. I appreciate all your desire to serve your nation 4 at a very important, challenging time.

5 Let me go back to -- I know that it has been raised a 6 couple times already. But Mr. Stewart and Mr. Slavonic, the 7 issue of training standards. I think it cannot be 8 overemphasized. I know the chairman talked about it. Have 9 any of you read the book by T.R. Fehrenbach called "This 10 Kind of War"?

11 Mr. Stewart: No, sir, I have not.

Mr. Slavonic: Sir, I have read excerpts of the book. Senator Sullivan: So I have extra copies. I typically give it to all the nominees, including now the current Secretary of Defense, of course, has read it. It is kind of a standard fare for Marine infantry officers. But the last Secretary of Defense had not. So I will provide you a copy when you guys come by my office soon.

But the point of that is it is all about the Korean War in 1950 and what happened and how we went from the most formidable military in the history of the world to one that had a real hard time stopping a third world peasant army because the training standards were relaxed and not focused on.

25 So I just want to encourage all of you -- I know you

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1 already heard it from a number of us, but as we rebuild the 2 force, keeping the high standards possible is just critical. 3 And you will get political pressure from this body, I 4 guarantee you, to lower the standards. Do not do it. Do 5 not do it. There is a number of us who think that the most important thing we can do is make sure there are super high б 7 standards because that is the best way to bring men and women home from combat if and when they are sent. 8 So can I get your commitment, both of you, to make sure 9 10 that we maintain not only the high standards, but if you 11 want to even make them higher and more rigorous, you will 12 have the support certainly of most members of this 13 committee. 14 Mr. Stewart: Yes, Senator. If confirmed, we will do 15 that. 16 Mr. Slavonic: If confirmed, yes, sir. 17 Senator Sullivan: And then you will read this book, 18 "This Kind of War," by T.R. Fehrenbach. Mr. Stewart: I look forward to it. 19 20 Senator Sullivan: I guarantee you the Secretary of 21 Defense probably has a couple copies on his -- okay. 22 Let me ask another question, Dr. Anderson, as it 23 relates to missile defense. This committee last year -- we had a bipartisan bill, very strongly bipartisan, which was 24 new in missile defense. Typically, if you look at the 25

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history of missile defense, it has actually, unfortunately, been a partisan issue. But a bipartisan bill last year that passed and the NDAA fully funded to significantly boost the nation's missile defense, which we need right now, given the rogue threats.

6 The chairman and I were recently at Fort Greeley, 7 Alaska where a lot of our missile defense assets are taking 8 place.

Let me ask two questions. Are you familiar with what 9 10 we just did in the last NDAA on bolstering our nation's missile defense? What more do we need to do from your 11 12 perspective? And importantly, the bill that we just passed-13 - the implementation of that needs to happen very quickly. 14 So let me give you one example. It was a little bit 15 surprising and frustrating when we were at Fort Greeley 16 recently. They are building a new missile field at Fort 17 Greeley. It was part of our bill. But when we asked them 18 how long it would take, they said 5 to 6 years. 5 to 6 years. My point was, well, we won World War II in less 19 20 amount of time. We cannot build a missile field for 20 new 21 silos in less than 5 to 6 years?

22 So what should we be looking at for the next phase in 23 missile defense, but also implementing what was, like I 24 said, a very big bipartisan push to advance our missile 25 defense system? 5 to 6 years to me is ludicrous. We need

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1 to do a much better job. How do we do that?

2 Dr. Anderson: Senator, I think leadership has to play 3 a large role in this. There is a clear sense of urgency, as 4 indicated in your question, when we are considering rogue 5 threats, in particular, Iran and North Korea. They have 6 both been working on long-range missiles for quite some 7 time, and the aim should not be to stay abreast of those 8 threats, but in my view actually to stay ahead of them.

9 And the specific circumstance you just mentioned on the 10 delay of the missile field is -- I am not familiar exactly 11 with the delay, why someone is saying that, but it sounds to 12 me very unfortunate.

13 Senator Sullivan: Well, if you are confirmed, can you 14 commit to work with this committee to more rapidly implement 15 the bill that we all agreed to last year and is fully 16 funded? But it just seems remarkable. And we all need to 17 look at this, but why it would take so long to actually just 18 build an additional missile field. Will you commit to 19 working with us to accelerate that?

20 Dr. Anderson: Senator, if confirmed, absolutely.

21 Senator Sullivan: And your ideas on additional missile22 defense we would welcome.

Dr. Anderson: Yes. So I know a number are under consideration to look at, for example, some unmanned systems that, for example, drones that may have some anti-missile
defense capabilities particularly in sort of the boost-phase
 intercept, which many would consider kind of the holy grail
 of missile defense.

4 In the next few weeks, I know the Department is 5 planning to release its missile defense review, and I would anticipate that they will talk about some of these cuttingб 7 edge technologies again to stay ahead of threats that are 8 evolving. It involves not only kill vehicles but also a series and suites of sensors as well to make sure we have 9 10 the maximum time available to track and to shoot down them in a timely manner. 11

I think another area that is emerging is there is a lot of attention in terms of kind of the cost ratios to make sure that our interceptors are not costing more than the missiles coming our way. And that is an important sort of equation that has to be looked at over time if we are to sustain those levels of funding.

18 Senator Sullivan: Thank you.

19 Thank you, Mr. Chairman.

20 Senator Inhofe: Thank you, Senator Sullivan.

21 Senator Warren?

22 Senator Warren: Thank you, Mr. Chairman.

23 And thank you to our nominees for your willingness to

24 serve.

25 Science and technology funding can often be directed

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toward the most immediate technical priorities. But as we address short-term needs, it is absolutely critical that we do not take our eye off basic research and the longer-term bets on emerging technologies.

5 So, Dr. Porter, can I ask you how you plan to ensure 6 the protection of the Defense Department's funding for basic 7 and applied research? And just say a word about your top 8 S&T priorities, if you could.

Dr. Porter: So you have hit the nail on the head with 9 10 that. That is always the challenge. They call it the tyranny of the immediate. And, of course, I spent time at 11 12 DARPA. It was one of the best jobs I ever had, and part of 13 the reason for that is that DARPA does really keep its eye 14 on that ball, as you said. We need to protect DARPA. We 15 need to make sure they can continue to take on the really 16 hard things. Much of what they try does not work, but the 17 things that work are what give us our technologies we rely 18 on today. I think you all are well aware of that. So that 19 will be something that we make sure that we protect.

20 Senator Warren: Good. I really like hearing your 21 strong commitment to this because I think it is absolutely 22 crucial, and it has got to start at the top.

You know, one of the concerns I often hear is about the failure to convert promising new technologies in the lab to the field, what you referred to as the valley of death. And

I am glad that you and Dr. Griffin will be focused on
 science and technology.

But I remain concerned that splitting oversight of R&D from the Department's acquisitions office may actually make this problem worse. So can you just say something about how you plan to ensure that our R&D program stays closely linked with the Department's acquisition requirements and that these promising technologies are nurtured to the point that they can make it into the field?

10 Dr. Porter: So I think it starts with strong 11 relationship building across that bridge between A&S and 12 R&E. I am fully committed, if confirmed, to develop that 13 bridge with them.

Senator Warren: Good, good. It is going to be a challenge, like the point about basic research and keep your eye on this.

17 So I have another one here, Dr. Porter. If confirmed, 18 you are going to be the steward of our defense research enterprise. This is not only the network of federal labs 19 20 but also organizations like DARPA where you have been with 21 its focus on emerging technologies, DIUx which coordinates 22 with non-traditional commercial partners and Strategic 23 Capabilities Office which integrates new capabilities into 24 existing equipment and which your colleague, Dr. Roper, 25 previously ran.

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1 Can I have your commitment that, if confirmed, you will 2 prioritize the needs of these offices and that you will ensure that they have sufficient resources and authorities 3 to accomplish their objectives? 4 5 Dr. Porter: Yes, ma'am, absolutely if I am confirmed. Senator Warren: Good, good. 6 7 You know, I am especially concerned about the Strategic Capabilities Office. As you are aware, the SCO now reports 8 to the research and engineering organization that you help 9 10 lead. But no one has been selected to lead that office 11 since Dr. Roper's departure. And I have seen public reports 12 that suggest that the SCO could be disbanded. And I would 13 just like to give you an opportunity to clear this up. Dr. Porter: So because of the situation that I am 14 15 currently in, I am not, of course, aware of any of the 16 internal decisions. 17 Senator Warren: Let me ask it this way. Do you 18 believe that the Strategic Capabilities Office should be 19 maintained and strengthened? 20 Dr. Porter: Yes, ma'am. If you think about it, it is a perfect complement to what DARPA does. Right? It is 21 22 about how do you take existing technologies that are already 23 proven and use them in new ways which, by the way, our 24 adversaries are very good at doing. So we need to make sure 25 we are doing that as well.

Senator Warren: Good, good, because I want to hear the
 support for that.

3 Dr. Porter: Absolutely.

4 Senator Warren: That is good.

5 You know, the SCO has moved rapidly to extend the shelf 6 life of our existing equipment in some amazingly creative 7 ways. And if we are going to stay the most technologically 8 innovative military in the world, I think we need that kind 9 of fast and creative thinking.

10 Dr. Porter: Agreed.

Senator Warren: Good, good. I am glad to hear it.
Thank you.

13 Thank you, Mr. Chairman.

14 Senator Inhofe: Thank you, Senator Warren.

15 Let me share. Since you did not use all of your time,

16 I will use a little bit by announcing the news just broke

17 that President Trump will be meeting with Kim Jung-un. The

18 place will be Singapore. The time will be June 12th.

19 Senator Cotton?

20 Senator Cotton: Thank you, Mr. Chairman.

21 Thank you all for your appearance today and thank you

22 for being once again willing to serve your country.

23 General Stewart, what is your assessment of the impacts 24 and challenges to the Department of Defense's readiness as a

25 result of 7 years of the Budget Control Act and repeated

1 continuing resolutions?

2 Mr. Stewart: It has been devastating. You have to 3 have a consistent budget that you can count on to make long-4 range plans.

5 Senator Cotton: Many Members of Congress were 6 celebrating and spiking the football a couple of months ago 7 when Congress passed a 2-year budget and then a 1-year 8 omnibus spending bill to implement the first year of that 9 2-year budget. Those are good things for the military.

How important is it, though, that we implement the second year of that budget in a timely fashion by passing the Department of Defense appropriations bill this summer? Mr. Stewart: It is very important. And then a continuation on that for 2020.

15 Senator Cotton: That is my next question, which is 16 that 2-year budget expires now in less than 18 months. The 17 budget caps and sequestration or the Budget Control Act 18 return in fiscal year 2020 and 2021, which is October 1, 19 2019.

How important is it that this Congress act to repeal those caps and sequestration as we have failed to do for the last 7 years under the Budget Control Act?

23 Mr. Stewart: I think Secretary Mattis has made it very 24 clear that that is very important, Senator.

25 Senator Cotton: Thank you.

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1 I want to turn now to a broad question about the health 2 of retention and keeping our troops on board. I will start with a specific example from the Army. There has been some 3 reporting recently about the Army reducing and not meeting 4 5 its recruiting goals. I spoke with Secretary Esper about 6 He said that is not exactly right. So part of this this. 7 is the result of the Congress not doing our job in a timely fashion. I forget which version of the NDAA last year set a 8 10,000-man goal for recruiting. Another one set 5,000. The 9 10 Army went with the more conservative version. So they set it first at 10,000. When we compromised between the two 11 12 chambers, it was at 7,500. That accounts for a 2,500 13 personnel reduction.

But then the Army succeeded in retaining more than its initial target, and because they have an overall cap, they had to reduce recruiting by the resulting level. So that is good news for retention. Obviously, recruiting though is still strained.

19 Can you talk a little bit about what we are doing in 20 the Department to succeed in retention and what we can do to 21 improve a little bit on recruiting?

Mr. Stewart: Well, Senator, I have not been read in on exactly what they are doing, but if confirmed, I would get back with you to see what they currently are doing.

25 As far as the future for recruiting, I think it is

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very, very important that we understand that we are looking for a different type of individual. They are social mediaoriented. I think the previous Secretary of Defense, Secretary Carter, had some unique ideas on the force of the future that we might look at and pursue. If confirmed, I would go ahead and look at those as a starting point and then work from there.

8 Senator Cotton: And what about retention? What is your sense of why we are succeeding on retention, beating 9 10 our goals? What are the key factors do you think that we are getting our soldiers, sailors, airmen, and marines and 11 12 their families to say we want to sign up for another hitch? 13 Mr. Stewart: I think we are providing a very good 14 benefits package for them, Senator. I think it equates very easily with the civilian community. In other words, it is 15 16 very favorable for them. They like the stability I think in 17 many cases. The changes that have been made I think are 18 important as far as stability, as far as movement, those 19 kinds of things. And so I think the leadership is starting 20 to listen to the ideas that are out there, and thus, it is 21 having a tremendous impact on our retention.

22 Senator Cotton: Thank you for those answers. And 23 thank you, in particular, for noting the non-monetary 24 reasons why our troops reenlist. I think that is important. 25 You know, this Congress has done a pretty good job over the

last 15 years of trying to keep pace with civilian pay and
 benefit packages, but we will never be able to keep pace
 entirely, especially in some certain critical skills, which
 leads me, Mr. Slavonic, to my final question for you. And
 that is about Navy and Marine Corps aviation.

6 We have seen the Air Force struggle to get the number 7 of pilots it needs in part because of the issues that General Stewart and I were just raising. Our military is 8 never going to be able to pay pilots what the private 9 airlines or private charters can pay. Senator King and I 10 have had private roundtables with company-grade pilots. 11 12 They want to fly. They are staying in the service because 13 they joined to fly a high performance aircraft in defense of 14 our nation. They like the bonuses but the bonuses are never 15 going to match what they get in civilian life.

I am beginning to see reports that the Navy and Marine Corps may face the same stress on its pilots. Could you talk a little bit about the status of the pilot force, as you understand it, in the Navy and Marine Corps and what the Department of the Navy can do to make sure that we keep the appropriate number of pilots in the service?

22 Mr. Slavonic: Yes, sir. As you stated, the Navy and 23 Marine Corps are beginning to have problems in that area. 24 As Mr. Stewart stated, it is not always about the money, the 25 compensation. So I have to think that we have to be more

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1 creative. We have to maybe develop a program where we keep 2 those Southwest, American Airlines pilots who left the Navy, somehow be able to create a flow-in/flow-out ability to keep 3 them in the reserves, allow them to work in the civilian 4 5 world, but yet if and when the balloon goes up, that we can 6 call them and ask them to come and serve. So I think we 7 need to work harder in that area than we have in the past. I know that program is there, but I think recruiting -- we 8 just have to work that much harder. 9

10 Senator Cotton: General Stewart, you raised your hand. Mr. Stewart: Yes, sir. If you had the conversation 11 12 with the company-grade pilots, I am sure they told you that 13 they want to fly. And so ultimately if the dollars are not 14 there to keep their training up, to keep their proficiency, 15 they are going to leave. And so ultimately having the 16 training dollars to go ahead and train and do what they love 17 to do does have an impact on retention.

18 Senator Cotton: Thank you. My time has expired, but 19 Drs. Porter, Anderson, and Verdon, sorry we did not get to 20 you. You have very important jobs, and thank you for being 21 willing to do them.

22 Senator Inhofe: Thank you, Senator Cotton.

23 Senator Blumenthal?

24 Senator Blumenthal: Thanks, Mr. Chairman. Thank you 25 all for your service and to your families as well.

1 Dr. Porter, as you know, we are seeing progress in the 2 F-35 program. The system development and demonstration phase was completed last month. The achievement of that 3 4 milestone is important to the program. It is the most 5 comprehensive flight test program in aviation history, and 6 it will permit the F-35 program to move forward, 7 fortunately, with completing the operational test and 8 evaluation. The F-35 flight testing continues in support of phased capability improvements and modernization of the F-35 9 10 as part of the joint program's offices continuous capability 11 development and delivery framework. All of that process 12 describes continuing development of this century's next 13 fighter aircraft, which will be essential not only to our 14 national security but to much of the world's. 15 I wonder what more research and engineering can be done 16 or is necessary, so far as you know, to assure that the 17 program is continued and completed. 18 Dr. Porter: Senator, I am not familiar on where the 19 R&E role may play at this stage in that program's 20 development. 21 Senator Blumenthal: Are there particular aspects of 22 the F-35 that you plan to focus on? 23 Dr. Porter: At this time, I would have to say I am not familiar enough to say that the answer is yes or no. 24 It is 25 something I would have to get smarter on to know whether it

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1 makes sense to have continued R&E engagement for later 2 upgrades and so forth.

Senator Blumenthal: How about for the Colombia class 3 4 submarine?

5 Dr. Porter: My answer would be the same on that. Given that these are acquisition programs, the question is б 7 how do we work with A&S to ensure we understand what followon capabilities they may need in these programs. 8

Senator Blumenthal: Do you see an opportunity for R&D 9 10 in undersea warfare, particularly as to unmanned --

Dr. Porter: Absolutely, absolutely. There are a lot 11 12 of challenges with undersea, particularly unmanned 13 submarines and submersible vehicles. Those are challenging 14 problems. Underwater comms, for example, is one example

15 where there is a continuing need to do R&E work.

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16 Senator Blumenthal: How would you assess our R&D as 17 compared to other leading adversaries?

Dr. Porter: Generally speaking or specifically? Senator Blumenthal: I am sorry. On undersea warfare. 19 20 Dr. Porter: On undersea warfare. I do not know enough about where our adversaries are putting their money. So I 21 22 would not be able to give you a good answer on that right 23 now. I would be happy to look into it and get back to you 24 and confirm that.

Senator Blumenthal: If you would, I would appreciate 25

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1 it.

2 How about more generally our R&D compared to our 3 leading adversaries?

Dr. Porter: So it does vary by area, but we have 4 5 talked today on some of these topics, and I think the things that we need to worry about are areas like advanced б 7 analytics, artificial intelligence, machine learning. You have heard a lot of those, obviously. Biotechnology is one 8 that we need to be mindful of. Hypersonics, directed energy 9 10 weapons. I am probably forgetting some. Cybersecurity would be one that I would be mindful of in terms of our peer 11 12 adversaries. So there are a whole host of technology areas 13 that I am concerned that our peer adversaries are getting 14 ahead of us on. 15 Senator Blumenthal: In particular, artificial 16 intelligence?

17 Dr. Porter: Yes.

18 Senator Blumenthal: Could you talk about that a little
19 bit?

20 Dr. Porter: Sure. So as you are aware, that is a very 21 hot topic these days. People are very excited about the 22 opportunities that artificial intelligence and what I would 23 call machine learning, which is what it is really doing --24 it is teaching machines to train on data, to learn to do 25 things faster than humans can do, for example, detecting

objects and images. There is a lot of investment going on
 in China right now. There is a lot of investment globally
 going on right now. There are a lot of opportunities for
 people to get in and do well. And so we have to make sure
 we are staying ahead of that.

6 Senator Blumenthal: My understanding is that China has7 particularly devoted resources.

8 Dr. Porter: Correct, absolutely correct.

9 Senator Blumenthal: Are you concerned about that kind 10 of investment?

11 Dr. Porter: Of course, Senator, yes.

12 Senator Blumenthal: And will you be an advocate for 13 increased investment?

Dr. Porter: Increased and focused and make sure that we are using those capabilities to solve military-relevant problems.

17 Senator Blumenthal: Thank you.

My time has expired. I again thank you all for your service. The topics that have been explored here certainly could use a lot more of our attention, and I look forward to

21 doing it with you. Thank you very much.

22 Senator Inhofe: Thank you, Senator Blumenthal.

23 Senator Tillis?

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24 Senator Tillis: Thank you, Mr. Chair.

25 Congratulations to all of you for being nominated. Mr.

1 Slavonic, it is good to see you over there. It was a

2 pleasure to work with you when you were supporting one of my 3 colleagues.

4 I actually only have a few brief comments. I intend to5 support all of you and your nomination.

6 But I do want to go back to some comments that were 7 made earlier. I think, Dr. Porter, it was you who said we 8 do not punish those who fail, and we need incentives within 9 the DOD to get things faster. I also do not think that we 10 punish people who succeed but they took too long to do it.

11 And I did not have a chance to go back to my office and 12 bring my 680-page RFP for the next generation handgun that 13 took 10 years that has 680 pages in it but only 39 pages are 14 specs. But we all know that all those other pages are 15 relevant, complex, and costly for our suppliers to respond 16 to. And that is an unacceptable success. For us to be in 17 the procurement phase now is a good thing, but the reality 18 is we probably already should have been working on the next 19 generation handgun.

So each of you are going to go into areas where you are either going to have a direct line responsibility or matrix responsibilities where each and every one of you need to root out that sort of culture that is the complete opposite of what my experience was in business around lean design.

25 Each and every one of you need to do it.

1 We need to be relevant again. I think it was Senator 2 King that said that Silicon Valley has given up on us because, on the one hand, Senator Warren is right. We need 3 4 to be thinking about the long-term big problems that DARPA 5 is trying to tackle. On the other hand, when we stand up 6 the Army Futures Command, wherever it is going to be, we 7 also have to recognize that in the cyber space, a number of other spaces, look, we got to get a solution in 6 months 8 because it is going to change in 12. And we have got 9 10 acquisition and procurement systems that cannot move at that speed, which is why we are losing ground with our 11 12 adversaries.

And I also think that there should be some reward for making a bad decision earlier so you can get on to a good decision not only within the halls of R&D efforts, but the whole of government.

17 I also believe for the two nominees who are going to be 18 responsible for manpower and reserve affairs that we get better leverage out of our enlisted. When I would go and 19 20 work in a manufacturer, a financial services entity, you 21 would go to the C-suite to figure out what they thought the 22 problem was, but you went into the factory or you went into 23 the banking centers to come up with good solutions. And I 24 do not see that systemic level of engagement. And we have 25 to have a culture where we are looking down for the

solutions that come up. It is a traditional organizational
 construct in business. It is about as rare as a leprechaun
 riding a unicorn in the government.

And so we have to figure out a way -- I have not used 4 that analogy before. I am sure somebody will criticize it. 5 But we have got to have leaders going into these agencies б 7 who think lean, who find examples of it better not happen again, like that 689-page RFP. And all I want is your 8 commitment to engage. You are going to be busy. But you 9 10 have got to have transformation efforts within your agencies to look at specific initiatives so that when in the 11 12 Personnel Subcommittee we come down and talk about manpower 13 and reserve initiatives that are getting lean, that are 14 producing value, that are freeing up resources across all 15 your agencies, that I for one think we should reward you and 16 plow back in for more change.

Look, I will vote for every repeal of sequestration that ever gets to the Senate floor. It is a disaster. There is no business that would stay in business in the competitive environment that you all play if they ran their books that way.

We have got a 5-year modernization plan and a 2-year funding strategy. So the fact of the matter is, as impressive as that plan was -- it was outlined by General Mattis and General Dunford a few weeks ago -- Secretary

Mattis -- we do not have any certainty that we are going to
 realize it over 5 years. We may. But we have our
 adversaries that are planning 10-year horizons and they are
 committed. And we have to recognize that is a problem
 Congress needs to fix.

6 So I want your commitment coming up with very 7 enlightened and specific transformation efforts for the 8 agencies you are going to lead, and I would like to speak with you about it. We can do it in the office. We do not 9 10 have to do it in a hearing. And I also want your commitment to cast light on past decisions of past Congresses that are 11 12 preventing you from realizing some of those goals, 13 specifically how we should act beyond the funding piece.

14 And with that commitment, that is all you need, just

15 straight down the line, yes or no, to get my support.

16 Thank you.

17 Dr. Anderson: Yes, sir.

18 Dr. Porter: Yes.

19 Senator Inhofe: Thank you, Senator Tillis. Very

20 thoughtful.

21 Let me commend Senator King because you always stay to
22 the bitter end. I am very proud of you.

23 Senator King: It is only because I have so much to24 learn, Mr. Chairman.

25 [Laughter.]

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1	Senator Inhofe: Any further comment?
2	Well, thank you very much. It has been very
3	enlightening. Certainly I am in full support of all of you,
4	and I think we have got a lot to work going forward. I
5	think Senator Tillis pretty much outlined it for us. So
6	thank you so much for your service and for your being here
7	today.
8	We are adjourned.
9	[Whereupon, at 11:12 a.m., the hearing was adjourned.]
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