Advance Policy Questions for Kevin Fahey
Nominee for Assistant Secretary of Defense for Acquisition

Department of Defense Reforms

The National Defense Authorization Acts for Fiscal Years 2016 and 2017 enacted sweeping reforms of the defense acquisition system and organizational structure. These reforms restructured the Office of the Secretary of Defense, particularly with respect to the Under Secretary of Defense for Acquisition, Technology, and Logistics, returned more authority to the military services for program management, and created additional acquisition pathways. If confirmed, you will be part of implementing these reforms.

1. **What is your understanding of the major reforms you will be responsible for implementing, if confirmed?**

If confirmed, I understand that I will be largely responsible for major reforms in the acquisition system. I will be responsible for implementing reforms to affordably drive innovation and delivery capabilities to the warfighter when they need them. I will make full use of the authorities and management tools Congress has provided to include rapid acquisition pathways, better access to commercial and non-traditional suppliers, and provisions to improve acquisition agility. If confirmed, I look forward to working with the Services and staffs of the Under Secretaries of Defense for Research & Engineering and for Acquisition & Sustainment as well as Congress in the implementation of these reforms and the identification of addition reforms.

The Department has been slow to act on many of the reforms from the National Defense Authorization Acts for Fiscal Years 2016 and 2017.

2. **If confirmed, what steps would you take to ensure that the Department conforms with, and implements, these reforms?**

If confirmed, among the first things I do would be to get a status of all the acquisition system related reforms and reports enacted in the FY 2016, FY 2017, and FY 2018 NDAAs. I would then ensure specific responsible individuals have clear plans to finish implementation. Lastly, I would track the implementation process and communicate any issues or challenges to Congress. As we implement these reforms we may uncover other areas for reform. I look forward to partnering with Congress in identifying areas for subsequent reform.

3. **What changes, if any, would you recommend to these reform-related statutory provisions?**

I do not have specific recommendations to offer at this time. If confirmed, I look forward to partnering with Congress in identifying areas for subsequent reform. My main focus will be to ensure authorities and responsibilities are aligned with accountability and non-value added oversight is eliminated.

Duties and Responsibilities

Section 138 of title 10, United States Code, provides for Assistant Secretaries of Defense, and the National Defense Authorization Act for Fiscal Year 2017 included section 901, which calls for restructuring the Acquisition, Technology, and Logistics organization that affects the role of the Assistant Secretary of Defense for Acquisition (ASD(A)). According to the Department of Defense's August 2017 Report to Congress regarding the implementation of section 901, the role of the ASD(A) will fall under the new Acquisition and Sustainment organization. Further, material provided by the Department of Defense on the intended duties and responsibilities of the ASD(A) includes: acquisition and procurement strategy and policy for systems and services; best practices for acquisition programs; and acquisition oversight of major joint programs—to include analytics and metrics.

4. **Is this an accurate description of the duties of this position as you understand them?**

Yes.

5. **If confirmed, what additional duties do you expect will be prescribed for you?**

If confirmed, I expect the Under Secretary of Defense for Acquisition and Sustainment to assign duties and functions commensurate with the ASD(A)'s function and expertise as she deems appropriate. I will work closely with the other ASDs to make sure responsibilities are aligned to be the most effective and efficient.

Qualifications

The newly-created Under Secretary of Defense for Acquisition and Sustainment (USD(A&S)) has been designated as the Chief Acquisition and Sustainment Officer of the Department of Defense. If confirmed, in supporting the USD(A&S), you will be responsible for establishing policy and conducting oversight of an acquisition system through which the Department spends more than $500 billion each year. What background and experience do you have that qualify you for this position? In particular:

6. **What background or experience, if any, do you have in executing programs to acquire products and/or services?**

Over my Army Civil Servant career I had many jobs executing small and large programs including Deputy Program Manager of an ACAT I program; Technical Director for an armaments and munitions research and development center; Deputy Program Executive Officer (PEO) Ammunition; PEO Ground Combat System and PEO Combat Support Combat Service Support.

7. **What background or experience, if any, do you have in overseeing the execution of programs to acquire products and/or services?**

Over my Army Civil Servant career, I had many jobs overseeing small and large programs including Deputy Program Manager of an ACAT I program; Technical Director for an armaments and munitions research and development center; Deputy Program Executive Officer (PEO) Ammunition; PEO Ground Combat System and PEO Combat Support Combat Service Support.

8. **What background or experience, if any, do you have in managing portfolios of programs? I managed portfolios as an Army civil servant.**

As Deputy Program Executive Officer (PEO) Ammunition I was responsible for managing the conventional ammunition portfolio for all services. As PEO Ground Combat System, the Army's Ground Combat Portfolio, and PEO Combat Support Combat Service Support, I managed several portfolios aligned with the logistics community and the combat engineers.

9. **What background or experience, if any, do you have in developing policy and processes for programs to acquire products and/or services, as well as policies and processes for oversight of such programs?**

I was responsible for developing policy as an Army civil servant, as Deputy Program Executive Officer (PEO) Ammunition, PEO Ground Combat System for the Army's Ground Combat Portfolio, and PEO Combat Support Combat Service Support. In addition, I spent a couple years on the Army staff responsible for policy related to System Engineering.

10. **What qualifications do you have using modern data approaches, tools, and methods that prepare you to maintain visibility of, analyze, and manage data on the volume, variety, and complexity of the inventory of acquisition initiatives and programs in the Department?**

I used modern data approaches, tools and methods managing portfolios and programs as an Army civil servant. As Deputy Program Executive Officer (PEO) Ammunition I was responsible for managing the conventional ammunition portfolio for all services. As PEO Ground Combat System, the Army's Ground Combat Portfolio, and PEO Combat Support Combat Service Support I managed several portfolios aligned with the logistics community and the combat engineers. I was the milestone decision authority for many programs requiring me to have an IT system to track program status to make informed decisions.

11. **What background or experience, if any, do you have in managing contracts for services?**

The service contracts that I have managed were mainly focused on support to programs to include all skills required to support a PEO.

<u>Relations with Congress</u>

12. If confirmed, what actions would you take to create and sustain a productive and mutually beneficial relationship between Congress and the Office of the USD(A&S)?

If confirmed, I will diligently work to establish a most productive partnership with Congress by communicating regularly, openly, and honestly with Congress. Collaborating with congress will be critical in performing my job if confirmed.

Major Challenges and Priorities

The National Defense Strategy published in January 2018 outlines several lines of effort and Defense objectives that will require the support and leadership of the Acquisition enterprise. If confirmed, which of these would you prioritize and how?

13. In your view, what major challenges will confront the ASD(A), and if confirmed, what plans do you have for addressing those challenges?

The National Defense Strategy outlines three primary lines of effort related to building a more lethal force, strengthening alliances, and implementing major reforms. If confirmed, enabling these efforts will be a priority for me and the ASD(A) organization. Among the challenges confronting ASD(A) will be the development of new capabilities with the most cutting-edge technologies and bringing them to the field more rapidly. My focus would be on modernizing key capabilities and programs in support of our nuclear deterrent force, space and cyber, C4ISR, and missile defense. To do this I will have to figure out how to create an organization that is innovative and has a culture of streamlining the process to rapidly deliver needed capabilities. I would also plan to focus on enhancing the workforce talent, increasing interoperability with our allied partners, and reforms focused on results and greater accountability.

14. What do you view as the appropriate role for the ASD(A) to play on issues that bleed across both the USD(A&S) and Under Secretary of Defense for Research and Engineering (USD(R&E)) portfolios?

If confirmed, I will facilitate collaboration among the staffs and the USD(A&S) and the USD(R&E) by communicating frequently with both and developing ways in which the two organizations can most effectively support the warfighter. We will both be focused on innovation and rapidly fielding relevant capabilities when needed.

Acquisition Organization

15. What further steps do you believe are necessary to align authority and accountability in the acquisition system?

Asking that question at every level of the acquisition enterprise is a step necessary to the alignment of authority and accountability. Unity of effort is critical, to include requirements and

budgeting. In addition we have to work hard to make all organizations have skin in the game like DOT&E.

16. What steps do you believe are necessary to promote "delayering" of the bureaucracy, while reducing risk aversion and improving acquisition outcomes?

One step towards the delayering of bureaucracy includes rewarding individuals and teams who are taking smart risks and succeeding. Another step is clearly communicating expectations within the workforce. If confirmed, I will evaluate acquisition processes and procedures for opportunities to reduce bureaucracy and reward critical thinking in how we do business. We have to build a culture of how do we help everyone be successful and not a culture of oversight.

17. What do you believe should be the appropriate role of the service chiefs in the requirements, acquisition, and resource-allocation processes?

The Service Chiefs should be involved in all aspects related to organization, training and equipping of forces. Service Chiefs should actively engage in the requirements, acquisition, and resource allocation processes and ensure users are intimately involved in the entire life cycle of an acquisition program. At the Service Chief level, discussions should occur on the balancing of requirements, budget and technological feasibility. Requirements will evolve and be tailored to meet budgetary and technological realities.

18. What do you believe should be the appropriate relationship between the ASD(A) and the services acquisition executives in managing complex acquisition requirements?

I believe the ASD(A) should collaborate with the Services Acquisition Executives in preparing goals for new and complex acquisitions and share in the accountability for achieving those goals. The ASD(A) should also provide best practices, technical support, and new technology ideas to Service Acquisition Executives as needed.

19. What do you see as the potential advantages and disadvantages to giving the service chiefs authority and responsibility for the management and execution of acquisition programs?

The primary advantage is that the Service Chiefs are responsible for service contributions to war fighting commands and they are in the best position to ensure their capabilities meet warfighter needs. The primary disadvantage is that Service Chiefs can be incentivized to be overly optimistic as to delivery schedules or costs for new weapons system development. That is why balancing discussions over budget, technology and requirements need to take place to temper potentially over-optimistic views which can happen if one is only focusing on requirements. We also need to make sure we look across the Services.

20. In what types of areas do you believe the Office of the Secretary of Defense should play a greater role in oversight and even execution of acquisition

programs?

The Office of the Secretary of Defense is in a very good position to oversee cross-Service portfolios and joint acquisition programs, especially early on in the development process. We need to work with the services on transparency of data for service specific programs.

Acquisition Innovation and Requirements Processes

This Committee, and the Department of Defense, have attempted to promote innovation within the defense acquisition system but have little to show for those efforts.

21. If confirmed, how will you support the work of organizations and activities such as DARPA, the Defense Department laboratories, the Small Business Innovation Research program, Defense Innovation Unit Experimental, and the Strategic Capabilities Office?

The Department needs to continue to embrace new ways of doing business and pilot new pathways for capability development. These efforts are crucial to our primary mission, getting capability to our warfighter. I am unequivocally supportive of all activities to accelerate the transition of technology to the warfighter, whether they are conducted within the DoD Labs, through DIUx, SCO, or DARPA, or from other sources. If confirmed I intend to work collaboratively with the USD(R&E) to foster a pipeline of capabilities to the warfighters as efficiently and effectively as possible.

22. Further, how will you take the best practices developed by these organizations and disseminate them more widely, for example, in having different pathways through the standard acquisition process?

While I am not in a position to assess the specifics of the SCO, DIUx, and DARPA organizations, if confirmed, I look forward to working with them and the OUSD(R&E) to explore ways to leverage best practices wherever they reside, including exploring different acquisition pathways, in lieu of the standard acquisition process. We need to change the culture and get people to all be thinking in terms of what it takes to deliver capabilities when needed and not let the process dictate the speed.

23. What is your opinion on the need to reform the way the Department and services execute the requirements process? What do you see as downfalls of the current requirements building process?

I understand the requirements process is being updated by the Joint Staff, as directed by the FY 2017 NDAA, in coordination with the requirements community of the Department, especially the Services, OSD and defense agencies. Like the recent and ongoing reforms of the acquisition process, achieving the right balance between oversight and visibility is the key factor being reviewed. Achieving appropriate speed and flexibility in providing actionable warfighting

requirements to the acquisition community remains the overarching goal in the requirements process. If confirmed, I will work with the Joint Staff to continue process improvements. Lastly we need to make sure the process fully understands the cost, schedule and technical achievability of the requirements.

Section 804 of the National Defense Authorization Act for Fiscal Year 2016 created a middle tier of acquisition to provide a new acquisition pathway for prototyping and rapid acquisition. The Department of Defense is delinquent, by over a year, and has yet to implement this provision of law.

24. Do you support these modes of acquisition and, if confirmed, when will you implement the law and what change management methods will you use to ensure the Department makes use of these pathways?

Yes, I support the authorities granted by Section 804 of the 2016 National Defense Authorization Act (NDAA); however, with the on-going reorganization of the former USD(AT&L) into the new USD(A&S) and USD(R&E), I cannot comment on timelines or change management methods the Department plans to use to implement these pathways. If confirmed, I commit to working with the Under Secretaries for A&S and R&E to implement these pathways.

The National Defense Authorization Act for Fiscal Year 2017 required that the Secretary of Defense establish cross-functional teams to address critical objectives of the Department.

25. What are your views on the potential focus areas and uses for future cross-functional teams?

I agree that focus areas and cross functional teams are important to bring together multiple Department stakeholders and processes in addressing DoD mission and performance objectives. Acquiring and sustaining complex weapons systems portfolios requires engagement with requirements, programming and budgeting, equipping and operating stakeholders to ensure affordability and near/long term capability needs are being met. If confirmed, I will support the use of cross functional teams in this and other focus areas. Cross functional teams are similar to Integrated Product and Process Development teams we used successfully in the past.

26. In what areas of internal Defense Department reform do you see the need for cross-functional teams to be developed? What cross-functional teams would you anticipate leading during your tenure, if confirmed?

If confirmed, I will employ cross-functional teams, in conjunction with the OSD, Joint Staff, DoD Services and Agencies, to improve our abilities to develop, test, produce, field, and sustain systems and services with an emphasis on affordable commercial best practices; evolvable and open architectures; and efficient oversight. So I would think for my position the cross functional teams can help us improve the process to field capabilities when needed.

The Department's response to recent congressional reforms has shown its difficulty in changing itself. However, the actions of our adversaries and the pace of their fielding of technological change demand an acquisition system that can innovate, adapt, and respond to new threats and opportunities.

27. If confirmed, what actions will you take to increase the Department's ability to innovate and change at the requisite pace?

Ensuring the DoD retains technological superiority is paramount. Critical to ensuring the Department doesn't fall behind our adversaries is ensuring our acquisition systems can innovate, adapt, and respond to new threats and opportunities at the necessary pace. Not only am I committed to streamlining the current processes such as DoDI 5000.02, I look forward to instantiating new acquisition pathways. Lastly, we need to focus on changing culture and change management.

The Joint Capabilities and Integration Development System (JCIDS) process was established more than a decade ago with the intention of addressing overlap and duplication in military services' programs.

28. What is your assessment of the JCIDS process?

JCIDS is the process which supports the JROC's statutory responsibility as the senior validation authority of joint military requirements. It attempts to balance the degree of requirements oversight with service/sponsor responsibilities and works in coordination with the acquisition process. I understand the Joint Staff is currently updating the JCIDS guidance documents as directed by the FY 2017 NDAA.

29. In your view, has the Joint Requirements Oversight Council been effectively drawing and using input from the systems engineering, cost analysis and program planning, and budgeting communities as warranted in its deliberations regarding requirements associated with major systems acquisitions?

Strong partnerships between the acquisition and requirements communities are essential to acquire suitable and effective weapon systems. It is through these relationships that systems engineering, cost analysis and program planning, programming and budgeting are integrated into the JROC discussions and decision making. From the outside it is hard to judge how effective the JROC has been at using these tools. If confirmed, I will seek opportunities to build on these relationships and find opportunities for improvement. We will need to consider the addition of the new USD R&E and A&S as advisors to the JROC to increase collaboration.

30. What do you believe should be the appropriate role of the combatant commanders in the requirements, acquisition, and resource-allocation processes?

Combatant commanders are the primary customers of the requirements, acquisition and resource-allocation processes. They are active in providing the demand signal and also expected and

welcome to provide direct input and feedback throughout every stage of each. The combatant commanders in collaboration with the services are key advisors.

31. Do you see the need for any changes in the structure or operations of the Joint Requirements Oversight Council?

No, I support the Vice Chairman of the Joint Chiefs' initiatives to emphasize cost-informed decisions in the military needs validation process. The current construct encourages direct and open discussion between senior military needs officials and USD(A&S). If confirmed, I will work continuously to advise USD(A&S) in the evolution of these processes to deliver better capability.

32. How should early prototyping be used to provide technical and systems information to inform JCIDS and requirements development processes?

I personally believe that the Department must involve the operational user community early in the prototyping and experimentation efforts to evaluate the performance of new capabilities. Prototyping and experimentation focused on increased understanding of technology and its impact on warfighting capability will drive down technical and integration risk, gain warfighter feedback to better inform requirements via the JCIDs process; and help to ensure that concepts going forward into acquisition programs not only provide the needed capability, but are timely and affordable. In addition early prototyping and experimentation will allow us to make the right tradeoffs to be able to execute an effective program.

Performance of the Defense Acquisition System

The policy, processes, and procedures for tracking and managing the Department of Defense's vast inventory of acquisitions of products and services are not producing the insight and foresight necessary for the Department to effectively oversee the acquisition function, nor is it producing the information necessary for Congress to conduct its oversight responsibilities. The Department's policy, processes, and procedures have not kept pace with tools and methods for using and analyzing data in support of a risk-based approach for managing certain portfolios, categories, and types of programs.

33. Do you agree that a fundamental reexamination of reporting to Congress on the performance of the overall system is necessary to implement the past few years of reforms?

Yes.

34. What steps will you take, if confirmed, to understand the nature of this problem and develop solutions?

If confirmed I will work to ensure this reexamination is performed in conjunction with the fundamental organization changes that are in work currently.

35. How should the Department define and manage concepts like risk and failure so that program managers can succeed by trying new technologies and concepts, learn what works and does not work, and thereby more quickly achieve technological advancements?

It is important that we have a consistent and effective risk management approach that allows us to accurately assess the risk of a requirement or technology. In everything we do we should understand the risk and rewards. That way we should not be surprised when a high risk technology fails. I believe a lot of what is in the FY 2016, FY 2017, and FY 2018 NDAA reforms will help, like the rapid prototyping initiatives to drive out risk early in the program. If confirmed making sure we understand the program risk will be a top priority to include how you incentivize the PMs to be innovative and not risk adverse.

If confirmed as the ASD(A), the information systems such as DAMIR (Defense Acquisition Management Information Retrieval) that provide enterprise-wide visibility into major defense acquisition programs' cost, schedule, and performance data would fall under your purview.

36. Based on your experience in Army acquisition leadership roles, how satisfied were you with the quality and timeliness of the information available on acquisition program performance?

My experience is consistent with the principle that what gets measured gets managed. I have seen quality and timeliness of acquisition program performance data improve as a result of leadership attention to it, and I firmly believe we must maintain a focus on this; but more importantly to extend and expand how data is used and to improve the transparency, efficiency, consistency, and depth of insight associated with those efforts. If confirmed I will assess what data analytics tools the enterprise uses to make sure it is effective and efficient.

37. In what ways could the Defense Department improve its use of data analytics to help identify programs earlier that might need a greater level of oversight from the ASD(A) office?

The Congress has directed a number of efforts related to data and data analytics, which I fully support and will work to implement. If confirmed, I intend to work across OSD, and with the Military Departments and Agencies to implement tools and techniques to enable our acquisition workforce to improve acquisition outcomes at all levels. I also intend to inculcate data analytics as a core part of the function of OUSD(A&S) and seek available avenues, such as the Defense Acquisition University and other institutions, to develop these skills in the acquisition and sustainment professionals of the future. There are many very effective data analytic tools and we need to make sure the enterprise has the right tools to manage our programs.

38. What specific steps will you take, if confirmed, to establish authoritative data, model risk, and use appropriate indicators of program and portfolio health?

I understand the Department has identified a core set of common authoritative acquisition data to support oversight and monitor program and portfolio health across MDAPs. If confirmed, this is an area I will examine carefully to ensure there is an authoritative acquisition data foundation used consistently throughout the Department, so we can leverage that data to enable acquisition leaders across the Department—in OSD and the Components—to have ready insight into the health and performance of individual programs and portfolios. Data should become a key focal point for us to collaborate on improving acquisition performance for the Department.

About 40% of Defense Department research and development and procurement funding is for major defense acquisition programs or ACAT I programs. ACAT II and III programs are less costly at the individual program level, but may have annual funding needs that are just as significant. In 2015, GAO reported that the Department could not provide sufficiently reliable data for it to determine the number, total cost, or performance of the Department's ACAT II and III programs. Specifically, GAO found that the accuracy, completeness, and consistency of the Department's data on these programs were undermined by widespread data entry issues, missing data, and inconsistent identification of current ACAT II and III programs.

39. Do you see the need for any additional processes or mechanisms to ensure coordination between the budget, acquisition, and requirements systems of the Department and ensure that appropriate trade-offs are made between cost, schedule, and performance requirements early and throughout the acquisition process?

I am not completely familiar with all the current processes and mechanisms to ensure coordination between the budget, acquisition and requirements systems. If confirmed, I will assess the current effectiveness of the processes and mechanisms and determine whether the development of or change to processes are needed to ensure that appropriate trade-offs are made. This is critical to help programs be successful.

40. What would be the operational impact of a decision by the Department to reduce purchases of major systems because of affordability issues?

Reducing the purchases of major systems will reduce the Department's capabilities, which will hinder the abilities of our war fighters to safely and efficiently prosecute operations in support of our national security strategy.

41. If confirmed, what steps, if any, would you take to address the out-of-control cost growth on the Department's major warfighting and IT-intensive programs?

If confirmed, I would investigate the root cause(s) of cost growth and its drivers. I would lead an effort to identify and understand where the risk of cost growth exists within each warfighting and IT-intensive program. I would study the decisions made or not made in the early years of programs because those decisions have proven to critically drive cost growth. Throughout the entire life of a program, I would work to ensure the accuracy and stability of requirements and

funding. I would make sure program managers have the proper training to understand where cost growth risk exists and how to prevent it.

One of the primary duties of the ASD(A) is to support the USD(A&S)'s oversight responsibility for joint major defense acquisition programs.

42. What lessons did you learn from your experiences on joint programs, such as MRAP and JLTV, during your time with the Army?

Joint programs are good but have their management challenges. On the challenges side you must work the requirements and funding through both services and make sure the process to make decisions is clear. The success of these programs is like all successful programs, requirements clear with trade space, sufficient funding, timely decisions, a clear understanding of risks and leadership advocates. On both programs the Marine Corp managed the requirements and they did a great job keeping requirements stable and giving trade space up front to make the right cost-effective trades to deliver the needed capability. The collaboration on these programs was also critical across two services and with OSD and congress, what I call unity of effort across the enterprise. You can not underestimate the value of leadership advocacy.

43. **What factors made those particular programs successful?**

The success of these programs is like all successful programs, clear requirements with trade space, sufficient funding, timely decisions, a clear understanding of risks and leadership advocates. I would add making sure you have the right people executing the program in both the government and industry. Lastly collaboration across the enterprise and with Congress is critical.

44. **How will your experiences on those programs shape how you will oversee other joint major defense acquisition programs, such as the F-35 Joint Strike Fighter?**

If confirmed, I would work closely with the Service Acquisition Executives to first understand the details of the current status of the program. Then based on the detailed program assessment work the challenges across the enterprise. I believe to be successful in executing this program we all must have a common understanding of the challenges and work them in a collaborative way across the enterprise.

The current investment budget for the Department's systems will be insufficient to afford all of the major systems we need to buy, and the continuing costs of ongoing contingency operations will not help. Existing law and acquisition regulation provide significant flexibility to the Department for tailoring in its acquisition directives and instructions. The latest version of the instruction for operating the Defense Acquisition System notes that, "Milestone Decision Authorities, with program manager input, have full latitude to tailor programs to be effective and efficient, unless constrained by statute." However, the organizational culture and tradition of acquiring capabilities using a hardware-dominant approach persists and impede effective tailoring to incorporate agile

and incremental development methods, especially into major enterprise-wide IT and software-intensive warfighting systems.

45. What steps, if any, do you believe that the Department should consider taking in the case of major defense acquisition programs that exceed the cost growth thresholds established under the "Nunn-McCurdy" provision associated with section 2433 of title 10, United States Code, and section 206 of the Weapon Systems Acquisition Reform Act of 2009 (WSARA)?

I believe the actions required by the statute are appropriate in calling for an examination of the requirements and trade-offs, potential alternatives, management, costs, and the basic value proposition of the necessity of the program considering other priorities. Root cause analysis of the problems and understanding the details of what caused the problem are critical in determining a path forward.

46. Do you see the need for any changes to the Nunn-McCurdy provision, as revised by section 206?

Not at this time, but if confirmed I will continually assess the situation and work closely with you on ways to improve the acquisition system

47. Do you believe the 25% cost overrun threshold for Congressional notification under Nunn-McCurdy is the appropriate measure for a critical breach of the program baseline?

Yes. The Nunn-McCurdy statute also requires Congressional notification when unit costs exceed 15% of the current baseline estimate. Other intermediate tripwires, in addition to routine execution monitoring signal the Milestone Decision Authority that a program needs additional review and assistance.

48. Do you believe the 50% cost overrun threshold for termination or certification by the Secretary of Defense is the appropriate measure for a serious breach of the program baseline? If not, do you believe it is too high or too low, and how would you adjust the threshold?

I have no changes I would recommend at this time, and I will consult with Department leadership and the Congress on any appropriate adjustments if confirmed.

49. What principles will guide your thinking on whether to recommend terminating a program that has experienced critical or serious cost growth under Nunn-McCurdy?

I believe the basic principles of the Nunn-McCurdy statute are fundamentally sound in calling for an examination of the requirements and trade-offs, potential alternatives, management, costs, and the basic value proposition of the necessity of the program in light of other priorities. My recommendations would be guided by these factors, and I would weigh each circumstance on a

case-by–case basis. Root cause analysis of the problems and understanding the details of what caused the problem are critical in determining a path forward.

The Major Automated Information System (MAIS) designation was established a decade ago with the intention to enable innovations in IT capabilities by establishing shorter acquisition cycle time. Modeled after the major defense acquisition program, the designation included annual reporting and threshold breaches known as "significant" and "critical" change that trigger Nunn-McCurdy-like enhanced oversight and action. The MAIS designation was repealed this past year after evidence that the approach did not measurably improve acquisition outcomes for IT initiatives.

50. **What experience do you have with MAIS programs and/or IT-intensive systems?**

I have never managed a MAIS program but have managed major programs with a large amount of software development. I believe to a large extent the success with a MAIS/IT intensive program are like a major weapon system program. The success of these programs must have requirements that are clear and well understood, sufficient funding, timely decisions, a clear understanding of risks and leadership advocates. In addition making sure you have the right people executing the program in both the government and industry and collaboration across the enterprise and with congress is critical. What I have seen is in many instances we have a hard time establishing clear requirements. I would add during my last couple years as a Government employee on the Army staff I was responsible for the oversight of the acquisition domain business system so very involved with creating a sound problem statement which was the foundation for the requirement.

51. Recognizing that IT-intensive systems have certain risks, how should the Department conduct program and portfolio management processes?

The general theme to delegate milestone decision authority for major programs to the Service Acquisition Executives (aligning with FY 2016 NDAA section 825) would lead the department to reexamine its overall approach to portfolio and program management. The Services will now have an even greater role in ensuring portfolio management of program drives toward improved performance outcomes. However, conducting portfolio management at the enterprise level will ensure jointness as well as reduce the chance of duplicative investment occurring at the Service level. The Department runs a number of governance forums for various portfolios, cyber, C2, business systems, or our IT infrastructure investments. Delegation of more programs to the Services should allow OSD to focus more on portfolio management.

If confirmed, I will review the effectiveness of our existing governance forums to ensure they are providing the right avenue to achieve results, especially with the increasing number of delegated program.

52. What about oversight approaches, including triggers or thresholds for additional oversight?

I understand the Department is adjusting its management and oversight of MAIS programs in the wake of the repealed congressional reporting statute (Chapter 144A), the general theme to delegate milestone decision authority for major programs to the Service Acquisition Executives (aligning with the FY 2016 NDAA section 825), the separate emphasis being directed to defense business systems (under the recently revised section 2222 of Title 10), and the significant reorganization of the Department (pursuant to the FY 2017 NDAA section 901).

If confirmed, I will review the effectiveness of these management changes with a view towards how they impact oversight, including triggers or thresholds for additional oversight. I would think OSD needs to be integrated into how the services will be executing their programs to continue to mentor, coach and help the services execute their program. We must take an approach of what can we do to make the services successful delegating authority and responsibility and creating the environment for success and less of a culture of auditing the program.

Recent changes to section 2222 of title 10, United States Code, resulted in a new DODI 5000.75 and business capability acquisition cycle (BCAC) for Defense Business Systems in 2017, which has begun implementation across business capability portfolios and systems. Unlike the DODI 5000.02 for major defense acquisition programs, the new BCAC expects the functional/requirements community and the acquisition community to work much more closely together to define and execute programs.

53. What experience do you have with acquiring or developing defense business systems?

My last couple years as a Government employee I was on the Army staff. While on staff I was responsible for the oversight of the acquisition domain Business Systems so was very involved with creating a sound problem statement which was the foundation for the requirement. I participated in the Business Systems oversight council in the Army and very involved with the Army's ERP programs across the Army.

54. Recognizing that business systems are nearly entirely IT and software-intensive and thus have certain risks, how should the Department conduct oversight, including triggers or thresholds for implementing additional oversight?

The majority of our business systems a delegated to the services. However, I believe I should play a critical role in helping the Services shape programs for success at the earliest stages helping with business process re-engineering and defining the process and acquisition strategy., identifying roadblocks and opportunities for law, regulation, policy, and process improvement to drive change.

While many programs are being delegated there is also a trend in developing capabilities at the enterprise level, for example, as enterprise IT shared services. These types of initiatives, which are critical enterprise capabilities that touch all areas of the Department, are the types that we may want to keep some type of oversight over. I am not exactly sure how this is done today but if confirmed I would evaluate our current oversight and determine the path forward.

The obvious triggers would be related to cost and schedule. If confirmed, I plan to partner closely with the DoD CIO and the CMO to work through how business systems will be governed under the DoDI 5000.75 to include establishing the right triggers and thresholds in addition to an oversight process going forward.

About 40% of Defense Department research and development and procurement funding is for major defense acquisition programs or ACAT I programs. ACAT II and III programs, which are managed by the military departments, are less costly at the individual program level, but may have annual funding needs that are just as significant. In 2015, GAO reported that the Department could not provide sufficiently reliable data for it to determine the number, total cost, or performance of the Department's ACAT II and III programs. Specifically, GAO found that the accuracy, completeness, and consistency of the Department's data on these programs were undermined by widespread data entry issues, missing data, and inconsistent identification of current ACAT II and III programs.

55. What role, if any, do you believe the ASD(A) should play in providing oversight of these smaller acquisition programs?

The ASD(A) should support and advise as necessary the Services in their management of smaller acquisition programs with the goal of preemptively avoiding cost, schedule and performance breaches. I will look into what data management and analytics we have across the enterprise to ensure we have visibility into program performance.

56. What actions would you take to improve the available data on these programs and their cost and schedule performance?

If confirmed, I would work to improve transparency and the use of data analytics to make timelier, cost effective decisions. I would aim to modernize the requirements models that instantly reflect changes to requirements and/or the design. I would work with the Services to modernize mission engineering techniques to improve the integration of individual weapon systems. The use of cutting-edge management tools can effectively integrate our decision making processes, from warfighter requirements to design and testing, in order to efficiently deliver capability to the warfighter.

Cost and Schedule Improvements

Acquisition data and analysis from both the Department of Defense and GAO indicate that major program cost and schedule outcomes have improved since the passage of WSARA.

57. To what do you attribute this improvement in acquisition outcomes?

A key driver was Section 201 of WSARA. This appears to have remedied the cultural bias that routinely produced unrealistic performance expectations and overly optimistic cost and schedule estimates. Section 201 of WSARA promotes early consideration of trade-offs among cost,

schedule, and performance objectives in major defense acquisition programs. If confirmed, I will ensure we work together in the early establishment of programs that are cost-effective, technically achievable and affordable by prioritizing early communication among the requirements, budget and acquisition communities.

58. How will you work to reinforce and expand the beneficial practices and policies implemented by WSARA and the Better Buying Power Initiatives?

If confirmed, I will work to leverage and build off the practices and policies of WSARA and Better Buying Power (BBP) by working carefully to improve the Department's management practices.. I intend to evaluate the successes of WSARA and BBP in addition to the recent NDAAs with the goal of identifying how to drive efficiency, productivity and affordability into the acquisition system while at the same time incentivizing innovation.

Technological Maturity

Section 2366b of title 10, United States Code, requires the Milestone Decision Authority for a major defense acquisition program to certify that critical technologies have reached an appropriate level of maturity before Milestone B approval.

59. If confirmed, what steps, if any, will you take to make sure that the Department of Defense complies with the requirements of section 2366b?

If confirmed, in furtherance of the advisory role established for OSD for most MDAPs, I will ensure my office will work collaboratively with the Services, USD(R&E) and other offices within USD(A&S) and the rest of the department. I believe the authorities provided in 2366b, as well as 2366a and 2366c, are critical to providing both the Department and Congress with the required and necessary transparency to effectively manage programs.

60. Are you satisfied that technology readiness assessments adequately address systems integration and engineering issues that are the cause of many cost overruns and schedule delays in acquisition programs?

In my experience, technology readiness assessments provide a necessary, but not sufficient assessment of program technical risk. Acquisition programs must perform a much broader assessment of technical risk, including engineering, integration, manufacturing, and sustainment. Risk management is an essential practice for acquisition programs, and should be continuous, measurable, used to inform management and resourcing decisions, and should also identify opportunities. If confirmed, I plan on working with technical experts in USD(R&E) and the Services to provide the right balance of technology insertion, innovation and risk management.

61. Beyond addressing technological maturity issues in acquisition programs, what other steps should the Department take to increase accountability and discipline in the acquisition process?

In addition to technical maturity we need to address the data that substantiates the cost and schedule estimates and cost, schedule and performance risk. In addition we need to assess the technical approach, acquisition strategy and business approach to make sure it is well thought out. If confirmed, I intend to implement the authorities provided by Congress, and work with Under Secretary Lord, the USD(R&E) and the Services to improve the acquisition process to align appropriate responsibility and authority with the Services as intended, while supporting the Secretary's establishment of cost, schedule, and performance goals, and facilitating transparency and coordination across OSD, Joint Staff, and the Services. Of note, I believe the direction provided in the Acquisition Agility Act to require assessment of program technical risk via the Independent Technical Risk Assessment required in 2448b will benefit programs and enable the Secretary and the Under Secretary to better manage the DoD acquisition investment.

Role of Concurrency

Some of the Department of Defense's largest and most troubled acquisition programs appear to have suffered significantly from excessive concurrency—the effort to produce a weapon system, even as it is still being designed. Meanwhile, best practices for developing software-intensive systems call for a greater degree of concurrency in design and development.

62. What impact does excessive concurrency have on efforts to deliver and produce hardware-intensive systems on schedule and on budget?

The amount of concurrency should be determined by the risk of the program and urgency of need. Excessive concurrency can inflate cost and schedule risk. Technological maturation and prototyping outside or inside of an MDAP program, modular open approaches, and incremental or phased development are tools that can address concurrency. Prototyping early to drive out risk can allow for more concurrency with acceptable risk.

63. What consideration should be given to concurrency in the context of software-intensive systems?

The considerations in determining concurrency should be risk versus urgency. I believe the Department needs to emphasize the use of modern software practices. If confirmed, I would support the use of those practices and evaluate how concurrency would affect acquisition outcomes for those programs.

64. If confirmed, what steps will you take to balance these two factors, and to appropriately incorporate "risk" of concurrency among the risks assessed in programs?

If confirmed, I will incorporate "risk" of concurrency among the risks assessed in programs. This includes taking into account concurrency as applied to modern software practices. When the degree of technical risk is lower and industry is able to participate as part of their normal business interests, cost risk should be shared. If an urgent operational need is driving

concurrency and involves great technical risk, sharing concurrency costs will be more difficult and potentially less appropriate.

Contracting Methods

This Committee has acted to ensure greater use of Firm Fixed Price (FFP) and Fixed Price Incentive Firm Target (FPIF) contracts for major acquisitions.

65. What are your views on the use of FFP contracts versus incentive contracts for appropriately balancing risk and incentives in defense contracting?

Firm Fixed Price (FFP) contracts are the Department's preferred contract type for a wide variety of DoD's requirements, including services and weapon systems. In general, FFP contracts are less administratively burdensome than other contract types. FFP contracts provide for a price that is not subject to any adjustment on the basis of the contractor's cost experience in performing the contract and therefore, provide the most incentive for contractors to find cost efficient solutions, since every dollar reduced equals a dollar of increased profitability. This contract type places maximum risk and full responsibility for all costs and resulting profit or loss on the contractor. In cases where the Department's demand for a given service fluctuates significantly, or where the design of a system is not sufficiently mature, it would generally be inappropriate to place all the performance and cost risk under an FFP contract on a contractor, as that risk would be passed along to the Department in the form of overstated pricing to cover contingencies that may never materialize.

Incentive contracts, such as fixed price incentive (FPI) contracts, can provide an arrangement for Government and industry to share equitably in both cost savings and risks. For our industry partners, FPI contracts can be effective in motivating the contractor to realize cost reductions and increase profitability. From the Government's perspective, FPI contracts share one significant feature of an FFP contract: the Government's maximum liability can be bounded by a ceiling amount that can be negotiated based on the degree of risk anticipated. In the absence of program stability and unknown risks, an FPI contract should be considered particularly given the fact they may contribute to improved affordability and cost control.

The Committee has acted to allow for greater use of Other Transaction Authorities, particularly early in the acquisition cycle and for innovative acquisitions. However, the Department of Defense has been reticent to use these authorities. The Committee has in the past been critical of the perceived misuse of Other Transactions Authority for major programs, such as the Army's Future Combat Systems.

66. If confirmed, how will you drive greater use of these flexible authorities while also ensuring they are not abused?

I understand the Department is working to increase awareness and encourage use of Other Transaction (OT) authorities by the acquisition workforce through additional training and OT authority delegations. I understand the Defense Innovation Unit Experimental (DIUx) as supported by Army Contracting Command-New Jersey, and Defense Advanced Research

Projects Agency (DARPA), host OT training events, and broaden acquisition and contracting workforce awareness of these techniques and best practices. I believe DoD practitioners in OTs must have the requisite business acumen, experience and training to effectively and efficiently use this authority.

67. Under what circumstances do you believe the use of these flexible instruments is inappropriate?

OTs are a great tool for rapid prototyping and attracting small business and non-traditional contractors.

68. Under what circumstances, if any, do you believe that Lowest Price Technically Acceptable contracts are appropriate?

In my view a Lowest Price Technically Acceptable (LPTA) source selection approach is not appropriate for OTs. The source selection process should address the results of market research, extent of the competition for the project, and any planned follow-on activities. While there is tremendous flexibility in how a competition is conducted, opportunities for OT awards must be handled in a manner that is fair, transparent, and ethical. There are areas where LPTA is appropriate when additional performance is not valued and the technical risk is very low of not achieving the desired results with a technically acceptable solution.

Unrealistic Cost, Schedule, and Performance Expectations

Many acquisition experts attribute the failure of Defense Department acquisition programs to a cultural bias that routinely produces overly optimistic cost and schedule estimates and unrealistic performance expectations. Section 201 of WSARA seeks to address this problem by promoting early consideration of trade-offs among cost, schedule, and performance objectives in establishing major defense acquisition programs.

69. Do you believe that early communication between the acquisition, budget, and requirements communities in the Department can help ensure more realistic cost, schedule, and performance expectations?

Yes. It is extremely important to work together upfront in the program to understand the requirements and the cost, schedule and technical feasibility.

70. If so, what steps, if any, would you take, if confirmed, to ensure such communication?

If confirmed, I will stress the importance of early communication and collaboration among the requirements, budget and acquisition communities to ensure we work together in the early establishment of programs that are cost-effective, technically achievable and affordable. I would participate in the Joint Requirements Oversight Council where cost-informed and technologically sound decisions can provide savings in time and resources for acquisition programs. If

confirmed, I would encourage and support the Service Chiefs' role in acquisition matters to facilitate dialogue on trade-offs.

71. How will you work with the military services and the requirements community to ensure that requirements are technically feasible and can be achieved within reasonable costs?

If confirmed, I would actively engage in any Department forum where the identification of program cost, schedule and performance objectives are balanced. I would facilitate acquisition community participation in JROC meetings when program cost, schedule and performance objectives are discussed. I would ensure that my staff actively participates in service conducted Configuration Steering Boards where requirements, budgeting and acquisition communities work together to craft better solutions to our warfighter needs. If confirmed I will work with the services on making sure we have the right substantiating date for cost and schedule estimates and the right technical management approach and acquisition strategy. Doing the hard work upfront is critical to program success whether it be a major weapons system or MAIS/IT intensive system.

72. What role should prototyping play in informing the requirements process, especially with respect to issues of cost and technical feasibility?

I believe prototyping drives down risk in emerging Programs of Record (PoRs) by quickly exploring multiple technology options early in the acquisition process. I also believe that prototyping emerging technologies throughout the entire system acquisition process will serve to inform the Department on which requirements are major cost and schedule drivers, and which requirements could be easily achieved through technology injects throughout the lifecycle of the system. If confirmed, I will advocate for the increased use of prototyping early to drive down risk and across the entire spectrum of the weapon system's lifecycle.

The Department has increasingly turned first to incremental acquisition and spiral development approaches and more recently to agile methods in an effort to make cost, schedule, and performance expectations more realistic and achievable.

73. Do you believe that these methods can help improve the performance of the Department's major acquisition programs?

Yes, it is important to select the right method consistent with the risk of the program when determining the technical management approach and acquisition strategy.

74. What risks do you see in the Department's use of these methods?

While incremental and agile acquisition approaches offer the opportunity to deliver capability faster, the Department needs to adapt its oversight and reporting mechanisms to be more flexible as well. We must also avoid "requirements creep" within the context of incremental and agile approaches that would add risk and delay capability. These methods are sometimes implemented in a way that delays "hard" content until well into program execution, resulting in dramatic cost

and schedule surprises. If confirmed, I will be a supporter of appropriately using these techniques, and I will remain vigilant during their execution.

75. In your view, has the Department's approach to these methods been successful? Why or why not?

I believe that incremental approaches have provided advances and more recent agile approaches hold great promise. Early setting of requirements and reducing documentation and reporting requirements will allow these approaches to be even more successful.

76. What steps, if any, do you believe are needed to ensure that the requirements process, budget process, and testing approaches can accommodate these methods?

I believe that communication and collaboration between the requirements, acquisition, and budgeting processes in addition to the test community is a must. I have seen unity of effort on successful programs. If confirmed, I will reach out to those communities both in OSD and the Services to advance flexible acquisition approaches. In addition, we can make improvements in how the Department uses data and modern management tools to better integrate our decision making processes, from warfighter requirements to design and testing, in order to deliver the capabilities the warfighter needs, when the warfighter needs them.

77. How should the Department ensure that programs incorporating these methods have appropriate baselines against which to measure performance?

All programs, to include those using incremental and other flexible approaches should have a baseline against which to measure progress. The baselines are decision tools that need to be accurate, but allow sufficient change to accommodate good/speedy decision making, not rigid structures that are a burden to the development and act as a disincentive to more incremental and flexible development approaches.

Funding and Requirements Stability

The poor performance of major defense acquisition programs has also been attributed to instability in funding and requirements. In the past, the Department of Defense has attempted to provide greater funding stability through the use of multiyear contracts. More recently, the Department has sought greater requirements stability by instituting Configuration Steering Boards to exercise control over any changes to requirements that would increase program costs.

78. Do you support the use of Configuration Steering Boards to increase requirements stability on major defense acquisition programs?

Yes, I have participated in many Configuration Steering Boards and they have been very successful keeping everyone one on the same sheet of music on major acquisition programs.

79. What other steps, if any, would you recommend taking to increase the funding stability and requirements stability of major defense acquisition programs?

Requirements stability, funding stability, and stability in acquisition strategies are key to successful acquisition outcomes. Well defined and achievable requirements are the foundation for successful programs. They allow the acquisition community to design solid acquisition strategies with realistic costs estimates. That in turn allows the resource allocation community to provide stable funding profiles. Open, early, and continuing communication among the communities is critical. If confirmed, I will work closely with the requirements and budgeting communities in OSD and the Services.

Along with the increased focus on the use of agile methods, comes encouragement for stability in high level requirements, and explicit discouragement of commitment to detailed technical specifications too early in a program, to ensure flexibility for new technologies, tools, or methods from commercial industry to be incorporated into a program.

80. How will you balance the need for both requirements stability and specification flexibility?

I believe you can have both requirements stability and specification flexibility at the same time. It's in part a matter of timing. We want stable requirements as early in the program as possible and while we need to lock down specifications before production, we do not need to bring them under configuration control too early in the design. Early in a program it is very important to have trade space to balance cost schedule and performance. I would argue early in the program we should minimize the set requirements that you would see in the specification. If confirmed, I will ensure the acquisition process provides for such flexibility.

Better Buying Power Initiative

The Department of Defense's "Better Buying Power" initiative provides acquisition professionals with guidance on how to achieve greater efficiency, enhanced productivity, and affordability in how the Department procures goods and services.

81. If confirmed, what steps, if any, will you take to follow through on this guidance and ensure that it is implemented as intended?

As a government civilian, I participated in the development of the Department's Better Buying Power (BBP) initiatives. If confirmed, I will evaluate the extent to which the BBP initiatives have been implemented across the Department. I intend to leverage the work done in BBP with the goal of driving efficiency, productivity and affordability into the acquisition system while also encouraging innovation.

82. What is the appropriate percentage of a major defense acquisition program that should be set aside for the government to manage a program?

Every program is different and so the appropriate percentage to manage each one needs to be evaluated based on the degree of technology risk; the acquisition strategy and the government's intended management approach. Another factor is where the program is in its life cycle. The more mature the program is, the lower the resources should be for government management. Once a program's configuration and industrial circumstances are stable, oversight may be reduced.

83. Which, if any, elements of the Better Buying Power initiative would you intend to modify materially or discontinue?

If confirmed, I intend to evaluate the BBP initiatives current status and effectiveness. Based on the evaluation I will be in a position to modify or delete the initiative.

84. Which, if any, elements of the Better Buying Power initiative would you intend to expand and continue due to their positive effects on acquisition outcomes?

If confirmed, I intend to evaluate the BBP initiatives current status and effectiveness. Based on the evaluation I will be in a position to modify/expand or delete the initiative.

85. What would you consider to be challenges and benefits to a Better Buying Power initiative focused on systems sustainment?

The goals of the BBP initiatives apply to both acquisition and sustainment. If confirmed, I will work with the sustainment community to integrate sustainment in early analysis of alternative and system requirements, design, and acquisition decisions so that the Department is better situated to affordably operate and sustain systems.

Successful Acquisition Programs

86. In your experience, what specific acquisition programs did you think were exemplary or successful?

The most successful programs I worked on directly were Stryker, MRAP and JLTV. The success of these programs is like all successful programs, requirements clear with trade space, sufficient funding, timely decisions, a clear understanding of risks and leadership advocates. On the MRAP and JLTV programs the Marine Corp managed the requirements and they did a great job keeping requirements stable and giving trade space up front to make the right cost-effective trades to deliver the needed capability. The collaboration on these programs was also critical across two services and with OSD and congress, what I call unity of effort across the enterprise. You can not underestimate the value of leadership advocacy.

87. What lessons do you draw from the example of those programs?

The success of these programs is like all successful programs, clear requirements with trade space, sufficient funding, timely decisions, a clear understanding of risks and leadership advocates. I would add making sure you have the right people executing the program in both the

government and industry. On all these programs the management plan and business approach set at the beginning of the program was well thought out with complete leadership buy in across the enterprise. Lastly collaboration across the enterprise and with Congress is critical.

88. How do you intend to apply these lessons more broadly across the Department of Defense?

If confirmed I will emphasize these lessons learned and how important it is to set the conditions for a program early in the establishment of the program whether it be a major weapon system or MAIS/IT system. Early in the development in the program is where we have to work across the enterprise to ensure the conditions are set for a successful program.

Contracting for Services

In fiscal year 2016, the acquisition of services portfolio accounted for more than $150 billion or just over half of the Defense Department's total contract spending. If confirmed as ASD(A), you would be responsible for policy and procedures and oversight of the acquisition of services across the Department.

89. Your background has primarily been in the research, development, and acquisition of major weapon systems. What experience or background do you have in managing or overseeing the service acquisition portfolio of a large organization?

As a former Program Executive Officer for Combat Support and Combat Service Support, I managed and oversaw a large sustainment and services acquisition portfolio within the Army to include the sustainment of tactical vehicle systems and force projection equipment, logistics support services, and training support that safeguarded our Armed Forces fighting across the globe.

90. What is your understanding of how the Department determines whether to use civilians or contractors for services needed by the Department?

It is my understanding that the Department has policies and procedures, grounded in statute and regulation, to help decision makers at all levels of the Department determine the most appropriate, efficient, effective allocation of work among the three sectors of its workforce, military, civilian, and contractor, that best assures delivery of mission execution. If confirmed, I will work with my counterparts across the Department as appropriate, to ensure the acquisition of contracted services is made in a manner that ensures a balanced and cost effective mix of labor.

91. What is your view on using staff augmentation contracts at headquarters level offices?

I believe there is a role for staff augmentation contractors at the headquarters, especially to provide niche capabilities, surge requirement and leverage private sector technical expertise. However, I also believe we need to continue to address resourcing and staffing at headquarters level offices, and make sure those offices are as streamlined as possible to provide for the operational mission and capabilities of the Department. If confirmed, I will work with my counterparts across the Department to ensure that the use of contactors at headquarters level offices is appropriate and does not result in the outsourcing of critical thinking, or the loss of institutional knowledge and capability.

92. What is your view on the use of OMB Circular No. A-76 to increase public-private competition for determining whether commercial activities should be performed under contract with commercial sources or in-house using government facilities and personnel?

It is my opinion that the private sector has always been, and should continue to be, a vital source of expertise, innovation, and support to the Department. However, it is my understanding that there has been a congressionally imposed restriction on the use of A-76 public-private competitions in the Department of Defense for nearly a decade. I believe leaders, managers, and decision makers should always have the maximum flexibility and tools available to them to meet their missions and requirements in a manner that makes the most efficient use of their available budget and resources, and that the Department should have the ability to leverage the private sector for commercial activities. If confirmed, I will work with appropriate stakeholders in Congress and in the Department to allow such competition in the future.

93. What do you believe is the most important factor for determining whether a service's role should be performed by government or contractor personnel, i.e., cost, flexibility, efficiency, ability to meet mission, or some combination thereof?

I believe the most important factor should be the mission or work being performed. Work that is inherently governmental or critical to an organization's mission attainment should not be contracted for. At the same time, certain missions require flexibility or an infusion of specialized or technological expertise that may not be resident in an organization's organic workforce. If confirmed, I will work with appropriate counterparts across the Department to ensure a balanced workforce of government and contractor personnel that is not only technologically advanced and capable, but also efficient, effective, and flexible.

94. Do you believe that the Department uses contractors sometimes as stop-gap measure or prefers to use contractors as a more flexible workforce than the civilian workforce?

Contractors, along with military personnel and civilians, are a part of DoD's total force and fulfill many vital functions that enable DoD to accomplish its missions. The use of contractors is neither a stop-gap measure nor an option for a more flexible workforce than the current civilian workforce. Contractors are a component of the total force that is managed from both a financial and contract execution perspective. Part of the Department's total workforce strategy is ensuring the appropriate mix of contractor, civilian and military personnel.

95. How would you improve stewardship of services contracts?

The DoD's management and stewardship of services contracts is being executed through several means. Strategically, by the issuing of the DoD Instruction 5000.74, Defense Acquisition of Services, in January 2016, DoD established policy, assigned responsibilities, and provided direction for the acquisition of services. The DoDI enables more consistent, active management and oversight of services acquisition as well as facilitates improved requirements development, exchange of best practices, elimination of redundancies and improved services acquisition policy. This includes the implementation of category management within DoD; the use of Services Requirements Review Boards; and a focus on training to improve services acquisitions tradecraft that is often performed by the non-Defense Acquisition Workforce Improvement Act (DAWIA) workforce.

96. Do you feel that the Department has the data, including reporting and analysis systems, to understand spending on service contracts?

I understand the Department has developed various contracting data and analysis tools that provide the Department with an aggregate understanding of services contracting.

97. What steps will you take to improve the quality of data collected and the analysis performed on that data so as to better understand and control spending on service contracts, and improve management of these activities?

If confirmed, I will determine if the data and analysis tools are sufficient for providing an integrated picture capable of enabling data-driven services contracting decisions at every level of the Department. I will support the review and gap analysis of current capabilities in both data availability and analysis, and determine what steps are required to establish the capabilities necessary for improving management of services acquisitions.

GAO has identified the Department's management and oversight of services to be a high risk area and has called on the Department to: specifically identify planned spending for services in the Department's future years defense program; reassess the roles, responsibilities, authorities and organizational placement of key leadership positions identified in the Department's January 2016 services instruction (DODI 5000.74); and ensure that the services' requirements review board process focuses on requirements early in the budget process rather than simply approve individual contracts. These seem to be very specific and actionable recommendations.

98. If confirmed, what would you do to implement these recommendations?

Management and transparency should be a priority in services acquisition, specifically identifying planned spending for services. This would be done by traceable budgeting and ensuring that detailed data is collected and analyzed to support the validation of requirements for services contracts and the Planning, Programming, Budgeting and Execution process of the

Department. If confirmed I will work closely with my counterparts across the Department in tackling the issue.

I believe reviewing and validating services requirements early in the budget process is an essential prerequisite in achieving desired services acquisition outcomes. Building on the current requirements review process already in place is a good starting point to further develop the process for greater transparency and standardization across the Department for services requirements validation by the requiring activity authority at the most appropriate time.

Technical Data Rights

The Department of Defense has struggled to maintain appropriate access to technical data packages for weapons systems in development and sustainment.

99. Is it worth spending more money in programs earlier in order to obtain technical data packages?

Technical data packages, appropriately containing data for use across the entire lifecycle of a system are key to maintaining cost control in modification, sustainment and maintenance of our systems. However, weapon system program managers should plan early for the acquisition of technical data required for operation, maintenance, and training of the weapon system.

I understand the Government-Industry Advisory Panel established by section 813 of the FY 2016 NDAA is examining the issue of technical data rights. If confirmed, I look forward to reviewing the panel's recommendations.

100. If confirmed, how would you use open systems architectures and acquisition strategies improve the Department's ability to modernize and sustain its systems?

I expect to continue DoD's policy of requiring open system architectures wherever feasible. Open system standards enable competition to reduce the cost of modernization and sustainment. Using industry standard interfaces may also allow adoption of best-in-class solutions to emerging warfighter requirements including the ability to leverage innovative commercial solutions from traditional and non-traditional defense contractors

Software Activities and Acquisition of Information Technology

Warfighting capabilities are increasingly software-reliant, and even software-defined. Business operations—financial management, personnel and pay, and travel—run on IT systems that have been predominantly reliant on software for some time. Despite these trends, and despite being given both the authority and direction to do so, the Department of Defense has struggled to implement changes to its acquisition processes that specifically support software activity and IT acquisition, for both warfighting and business operations. This has meant at times that the Department invests billions of dollars and 5-

10 years on an IT program—for example, the Expeditionary Combat Support System and more recently the modernization of the Air and Space Operations Center—but delivers no useful capability at all.

101. Please describe your views on how the Department should treat software in the acquisition process—specifically, how it should be developed, acquired, produced, and sustained?

I think there is a big role for OSD on major IT/business systems. Early in the process just like weapon system the requirements must be well understood or in the case of business system the business process re-engineering. Second it is critical to really understand the business case (monetize everything) and in some instances OSD will need to work across agencies when required. We also need to look for common opportunities across services. Upfront help from OSD is very important and then we need to help them execute. It is also critical that the Department adopt iterative and agile approaches more broadly in order to reduce the time needed to deliver capabilities.

Furthermore, I believe that the use of certain commercial technologies provides opportunity for the Department to leverage the innovation, rapid design iteration, and advanced production capabilities found outside of the Department.

102. In addition, how is/should it be different from hardware? How should the two be aligned for major efforts that contain both?

In general, my position is that it would be easier for the Department to capitalize on commercially available capabilities for major software efforts than major hardware efforts. The existing acquisition process, while fully tailorable for any program, is geared towards insuring that a more deliberate and thoughtful approach is taken for developing extremely high cost hardware platforms with long lifecycles and potentially high sustainment costs.

The success of hardware and software programs have many similarities, clear requirements, sufficient funding, timely decisions, a clear understanding of risks and leadership advocates. I would add making sure you have the right people executing the program in both the government and industry. On all these programs the management plan and business approach set at the beginning of the program was well thought out with complete leadership buy in across the enterprise. Lastly collaboration across the enterprise and with Congress is critical. There are obviously differences in how you define requirement and how you develop software versus hardware but the conditions required for a successful program have many similarities.

103. What do you understand the role of the ASD(A) to be with respect to IT acquisition and the software activities of the Department?

Recent NDAA language has focused on acquisition reform in general, and specifically on shift of milestone decision authority for major programs to the Service Acquisition Executives (FY 2016 NDAA section 825). These changes are an opportunity to change the way OSD manages, or rather supports, the Service's management of software-centric programs. Rather than overseeing

major IT and software acquisitions directly. I think there is a big role for OSD on major IT/business systems. Early in the process just like weapon system the requirements must be well understood or in the case of business systems, the business process re-engineering. Second it is critical to really understand the business case (monetize everything) and in some instances OSD will need to work across agencies when required. We also need to look for common opportunities across Services. Upfront help from OSD is very important and then we need to help them execute. Once the program starts we need to continue to stay informed and help the Services be successful with mentoring and coaching in addition to working any issues across Services or agencies. By leveraging the data transparency initiatives (mandated by FY 2018 NDAA section 911), I will be able to monitor IT program performance/results and identify cautionary tales or best practices that can be promulgated across the Department for better results. Some software-intensive programs, especially those with joint requirements, may still receive OSD-level oversight, and it would be my responsibility to support USD(A&S) in her role as the Milestone Decision Authority.

104. What do you understand the role of industry to be in this area?

I would look to industry for innovation, speed to market, and effective risk mitigation in this area. Certainly commercial industry's cumulative investment in new technologies far exceeds what the Department can afford to invest toward identifying promising capabilities. As the United States faces near-peer competitors, particularly in the cyber domain, we need industry's help to develop and deploy new capabilities more rapidly, while also mitigating technological risk to legacy programs that are too costly or too critical to replace rapidly.

105. If confirmed, how do you plan to address systemic and persistent cultural, process, and technical barriers to improving the Department's treatment of software activities and IT acquisition?

Large-scale software development and sustainment of the Department's existing software reliant capabilities is of critical importance to many of our information and weapon systems, across all warfare domains. In order to maintain operational advantage in the face of rapid technological change, the Department must modernize development practices, and effective workforce training which will be key to success in that area. The marketplace for software development skillsets is highly competitive. The Department must realign its processes for identifying, training and managing software competencies to retain the quality professionals that are needed, and keep their skillset up to date.

If confirmed, I will partner with the Services, Agencies, and Defense Innovation Board (DIB) to adopt iterative and agile approaches more broadly and find high payoff opportunities for streamlining of current policies, practices, and processes.

106. In particular, if confirmed, you will be responsible for implementing congressional reforms that establish a USD(R&E) and a USD(A&S)—where the USD(A&S) remains the chief acquisition officer and the chief procurement executive, and ASD(A) has responsibility for acquisition policy. How will you allocate responsibility for IT acquisition, especially software activities?

I am not familiar with the details of the planned reorganization other than what I have read in the press. However, if confirmed, I will be working with USD (A&S) and the other ASDs to flesh out the details.

107. How will you work with the testing community, and with the military services—including the Chief Information Officers?

I see a strong connection between the research and development of information technology and cybersecurity capabilities (a CTO mission) and the development and implementation of policy related to these technologies (a CIO mission), and the sustainment of this rapidly evolving segment of our warfighting portfolio (an A&S mission). I anticipate close collaboration between the CTO, CIO, & A&S missions, as in many of these areas the rapidity of the technology development will, by necessity, drive the policy development for the Department. I will work closely with the Chief Information Officer (CIO) on cross-cutting joint information assurance and information management issues and ensure the CIO is engaged on the development of architectures encompassing critical information capabilities.

If confirmed, I would support the USD(A&S) in her efforts to work with the Department's testing communities to evolve testing approaches, with the goal of more integrated software development, testing and operations processes. In particular, I would support collaboration with the Director of Operational Test and Evaluation, to include consideration of alternate testing procedures or tools that help eliminate duplicative testing, and expedite evaluations to bring systems to the warfighter cheaper and faster. I believe operational testing has a critical role in identifying weapon system vulnerabilities that jeopardize warfighter efficacy, before the department makes a full-rate production decision.

If confirmed I will immediately reach out to the Services to establish our battle rhythm of collaboration.

Science and Technology

108. What, in your view, are the role and value of science and technology programs in meeting the Department of Defense's readiness goals, in equipping troops with advanced capabilities, and in mitigating and neutralizing emerging threats posed by our adversaries?

Ensuring the DoD retains technological superiority and a balanced science and technology portfolio is the mandate of the new USD(R&E). Science and technology's value can be qualified by the ability to provide capability options to leadership and the warfighter, while tackling the department's greatest challenges and ensuring sustained technological superiority over our adversaries. In my view, the most critical role of the Department's science and technology programs is to enable the best equipped and most capable warfighters in the world. If confirmed, I will work closely with the USD(R&E) team to maintain awareness of science and technology programs that support the readiness, equipping, and threat mitigation missions of the department.

109. What is the Department's role and responsibility in addressing national security issues through scientific research and development?

In my view, the Department's role and responsibility in addressing national security issues through scientific research and development is to conduct military-relevant projects and programs targeted at enhancing the qualitative military edge of the United States over our adversaries. In this way, I believe that the USD(R&E) should set the strategic technical direction for the Department -- a direction that will ensure that the United States retains its technical superiority throughout the world. According to the recently released National Defense Strategy, modernization of key capabilities is of critical importance to our national security and directly supports the Secretary's priority of lethality. To achieve these strategic goals, if confirmed I would work closely with the USD(R&E) to provide advice and assistance as needed.

110. What would you do to bolster coordination between and among the science and technology programs of the military services and defense agencies?

The USD(R&E) was given the responsibility to reframe the approach to ensure technological superiority for the Department. If confirmed, I will work with the office of the USD(R&E) and the Services to establish mechanisms that allow for technology insertion into existing programs, and quickly pivot towards new programs that ensure fast delivery of required capabilities to the warfighter.

111. Which creative programs would you implement to ensure the services work together in a more collaborative manner?

The Department must be able to drive its military innovation cycle faster than any adversary to sustain a competitive edge. Our competitors are closing the gap because of our processes and artificial stovepipes, not our talent. It is important that our capabilities are designed in a way that they are flexible in addressing the range of mission needs in multiple domains and often in joint contexts. At this time, I cannot speak to which new specific programs I would implement as I am not aware of the current efforts to address this challenge. However, if confirmed, I will work with USD(R&E) and the Services to ensure they are collaborative. The department must evolve with emerging threats and new technology opportunities.

112. How would you use science and technology programs to better reduce technical risk and inform program technical and system requirements, and therefore potentially reduce costs and schedule problems that accrue in large acquisition programs?

The value of in-house science and technology capability is the ability to leverage the best and the brightest scientists and engineers as a technical "reach back" capability for major programs. Regular engagement and linkages between the acquisition and science and technology communities have tangible positive impacts on addressing cost and schedule challenges. If confirmed, I will encourage acquisition programs to leverage their peers in the science and technology community for their expertise and guidance in developing and informing technical and system requirements.

113. How do you strike an appropriate balance between near-term focus and investing in revolutionary and innovative research programs?

As the Chief Technology Officer of the Department, the USD(R&E) is charged with determining the appropriate portfolio balance between near-term focus and revolutionary and innovative research programs. If confirmed, I will work closely with USD(R&E) to ensure that the acquisition community has an accurate understanding of the technologies in nascent stages and those that are nearly prepared to transition to warfighter capability. Specific and detailed engagement will allow the acquisition community to better prepare for future programs and focus on top priority capabilities for the warfighter.

114. How do you ensure that the Defense research enterprise is poised to serve both short-term and long-term readiness?

To maintain a technological advantage, it is vital that the Department strikes an appropriate balance between funding innovative, disruptive technologies likely to see long-term returns on investment and addressing near-term operational needs and military requirements. In a time of constant pressure on resources, the Department has continued to protect stable S&T funding in order to preserve its capacity for innovation and prepare for an uncertain future. The Secretary has clearly and publically identified military readiness as a major challenge the department is facing. If confirmed, in order to effectively address this challenge and contribute to the overall lethality of the force, I will work closely with the USD(R&E) team to ensure a balanced portfolio and effective use of all resources to enhance the Department's readiness.

115. What would be your plans for the supporting the Third Offset strategy? Which areas would you emphasize and how would you ensure that these new technologies are developed and deployed quickly?

The Technology Offset Strategy rests heavily on advanced technology areas that are still in the development pipeline. These areas have the potential to fundamentally alter the conduct of warfare and how we engage with our adversaries. If confirmed, I will ensure that the acquisition community has an understanding of these emerging capabilities and will support the emphasis on prototyping to drive down technical and integration risk, while getting warfighter feedback. I believe that when the acquisition community is engaged early and often with the research and engineering community, we can enable future capabilities to be developed and deployed quickly and effectively. If confirmed, I will work closely with the USD(R&E) to maintain situational awareness of Technology Offset areas and their status.

Funding for Science and Technology Investments

116. Do you believe that the current funding levels for the Department of Defense's science and technology activities are appropriate? If not, what changes would you recommend?

I do not yet know. If confirmed, I look forward to reviewing the funding levels with the USD(R&E).

117. How would you evaluate the current process of portfolio management for the Department's science and technology investments?

If confirmed, it will be an early priority to understand the approach presently in use for portfolio management of Service and Agency S&T investments. I look forward to working with my colleagues in the Office of the USD(R&E) and with the Congress to formulate plans going forward.

118. What direction will you provide regarding funding targets and priorities for the Department's long-term research efforts?

If confirmed, I look forward to gaining better insight into the future of the Department's S&T budget in a resource-constrained environment. While the long-term research investment strategy for the Department clearly resides under the purview of the USD(R&E), I do believe that stability and consistency in funding is essential to enable a solid base for long-term research and in the current budgetary climate this stability is not easy to come by.

119. What specific metrics would you use to assess whether the Department is making adequate investments in its basic research programs?

If confirmed, I will work closely with the OUSD(R&E) to examine the methods currently in use.

120. How will you assess whether the science and technology investment portfolio is adequate to meet the current and future needs of the Department?

If confirmed, I would review in collaboration with the USD(R&E) recent investments across the Department's activities from basic research, applied research, prototyping, and even acquisition and their budgets. I will look to understand the Department's approach to building the foundation for future warfighter capabilities and ensure we are collaborating and working together to build the appropriate portfolio across the Department.

121. What specific technological areas should the Department prioritize for investment in order to develop next generation operational capabilities?

I do not yet know. If confirmed, I look forward to gaining better insight by working with the USD(R&E) into the existing programs and budgets within the DoD S&T enterprise.

122. Given limited resources, what technological areas can be de-emphasized in order to free resources to support priority areas?

If confirmed, I will work with the OUSD(R&E) to provide input to the Department's priority areas of investment and portfolio balance where applicable and appropriate.

123. What is the role for the Department in developing a pipeline of future scientists and engineers?

The Department needs to retain the outstanding talent that currently resides in critical areas and continue to focus on gaining additional talent in areas where it currently has shortfalls. If confirmed, I look forward to ensuring that we are appropriately staffed to do the mission that Congress intends – to set the technical direction of the Department and to ensure that the U.S. retains technical superiority.

Department of Defense Laboratories

124. What experience do you have working with Department of Defense laboratories?

The Defense Laboratories, Engineering Centers, and Warfare Centers are a critical pillar of our national defense. As a former Program Executive Officer (PEO) Ground Combat Systems, PEO Combat support Combat Service Support, Deputy PEO Ammunition and the director of system of systems engineering and integration I worked with basically every lab in the Army and several from the other Services. I interacted frequently with scientists and engineers from DoD labs and am well familiar with their outstanding capabilities.

125. What metrics would you use to evaluate the effectiveness, competitiveness, and scientific vitality of the Department's research and development laboratories?

If confirmed, I will work closely with the Office of the Under Secretary of Defense for Research and Engineering to ensure that our R&D laboratories are able to continue to provide support to the Warfighter across the acquisition life cycle and study measures and metrics of effectiveness in conjunction with the USD(R&E).

126. What steps would you take to increase the mission effectiveness and productivity of the Defense laboratories?

The Defense laboratories are a crucial component of the acquisition process and provide technical reach back and technical support to the acquisition community and programs. If confirmed, I will work with the Office of the USD(R&E) to ensure that our labs are equipped to continue to address emerging technical issues and provide acquisition options for the Department.

127. How would you enhance the level of technical collaboration between the Defense laboratories and other federal, academic, and industrial scientific organizations?

If confirmed, I will work with the Office of the USD(R&E) to assess our internal DoD strengths as well as those residing in other federal institutions, academia, and industry (commercial or defense). I would look to experts in their respective technical fields and work to forge

collaborative relationships with leaders in the scientific community and their organizations. I firmly believe that to maintain the nation's technological edge, the DoD must make best use of its own in-house capabilities, the capabilities of other federal institutions and those of academia and industry.

128. Do you believe that past investments in research equipment; sustainment, repair and modernization; and facility construction at the Defense laboratories have been sufficient to maintain their mission effectiveness and their standing as world-class science and engineering institutions?

As PEO Combat Support Combat Service Support I was responsible for the acquisition of all logistic capabilities in the Army. I support the desire to improve the maintenance and sustainment of the Department's existing in-house labs, which will also enable the DoD to extend the service lives of capabilities currently being fielded by our Warfighters. If confirmed, I will work closely with Department leadership and the Office of the USD(R&E) to identify innovative ways to maintain our critical infrastructure to ensure the Department can deliver future technology faster and more affordably.

129. Are you satisfied with the quality of the Defense research, laboratory, and engineering workforce and infrastructure, especially relative to its industry and academic peers, and global competitors? How do you plan to maintain or upgrade that quality in the future?

The DoD's laboratories must have world-class facilities and the highest quality work force to meet its missions and to allow DoD to better preserve and enhance its technical edge in future decades. To that end constant improvements and investments are required, supported by continuously working to maintain and grow a dynamic and quality work force. These efforts are crucial because the Defense Laboratory Enterprise furnishes the department with an in-house research capability with no commercial equivalent. If confirmed, I plan to encourage the work with the Office of the USD (R&E) laboratory community to identify priority Science and Technology areas that need enhancement initiatives and will provide inputs, if requested, on the means I believe to be the most appropriate to achieve these ends.

130. Do you believe that the state of Defense research facilities around the country are having an adverse impact on the ability of the laboratories to recruit and retain a highly-skilled technical workforce?

Recruiting and retaining a highly-skilled technical workforce is a challenge for many organizations to include the DoD. If confirmed, I will work with the Office of the USD(R&E) to study what impacts, if any, facility quality is having on recruitment and retention.

131. What would you do to increase the interaction between the labs and the private sector? Similarly, how would you ensure that a greater percentage of the technologies being developed by the labs transition into programs of record and are expeditiously deployed to the warfighter?

The private sector is a source of incredible innovation and it has the important capabilities, upon which the DoD relies, for scaling up production of new technologies for deployment to the Warfighter. Close dialogue and coordination by our in-house laboratories, acquisition community, and private sector is necessary for expeditious deployment of new technologies in the face of an ever-changing battlefield environment for our Warfighters. To that end, potentially increasing the professional corps of acquisition professionals in OSD and the Services and expanding their understanding of acquisition flexibilities could result in improvements in effective and timely technology transitions. If confirmed, I will work with the Office of the USD(R&E) to improve the interaction between the labs and industry.

132. What would you do to increase the interaction between the labs and universities? How would you ensure that these relationships are most effectively managed?

If confirmed, I will work with the Office of the USD(R&E) to ensure that the DoD laboratories continue to collaborate with universities to conduct world-class research in support of the national security of the United States. In my experience, I have observed that authorities given to our science and technology reinvention laboratories by Congress will help create an environment that fosters excellence in research, fosters technology transfer between the DoD and academia, reduces costs to the Department, maximizes the use of existing laboratory infrastructure, and promotes economic growth.

133. In your view, have the Defense laboratories struck an appropriate balance between investments in near-term technology programs that are tied to current battlefield needs and investments in longer term, higher risk, and revolutionary capability development?

In my previous government experience, I felt that DoD S&T investment strategy struck an appropriate balance between funding innovative, disruptive technologies addressing near-term battlefield needs and investments in longer term, high risk, and revolutionary capability development.

134. What is your view on the quality and relevance of the Defense laboratories as compared to the Department of Energy national laboratories, federal laboratories, academic laboratories, and other peer institutions?

Based on my past experience, I believe that DoD laboratories are a critical and unique component of the Department's research and engineering enterprise. They provide the science, technology, and engineering expertise to DoD that allows our Nation to maintain a technological edge over potential adversaries. DoD technical expertise also plays a prominent role in developing technologies that benefit the Nation as a whole. The DoD laboratories' mission-driven work, focusing on the warfighter and our nation's security, make them unique and irreplaceable assets. Defense laboratories play a critical and distinctive role in the Department's research and engineering enterprise. While Department of Energy, federal laboratories, academic laboratories, etc. make vital contributions, they cannot replace the unique capabilities and

expertise of the in-house Defense laboratories and their unique focus on, and access to, U.S. warfighter needs.

Technology Transition

The Department of Defense continues to struggle with the transition of new technologies into existing programs of record and major weapons systems and platforms. Further, the Department also has struggled with moving technologies from Defense technology development programs or other sources rapidly into the hands of operational users. The Research and Engineering enterprise will have primary responsibility for development, but the Acquisition and Sustainment enterprise must do its part to address transition of technology development programs into acquisition programs.

135. What impediments to technology transition do you see within the Department?

In my experience we can improve technology transition by better collaboration and more deliberate transition and funding planning. Recent authorities in FY 2016 and 2017 NDAAs provide pathways to prototyping technologies outside programs of record which enable much more rapid prototyping and product evaluations. If confirmed, I will assess the factors that hamper technology transition within the Department of Defense, and work with the acquisitions community to investigate avenues to accelerate and transition technology to the Warfighter.

136. If confirmed, what steps, if any, will you take to enhance the effectiveness of technology transition efforts?

If confirmed, I will assess those Department of Defense policies in place that concern rapid prototyping, experimentation, and demonstration processes to ensure effective dialogue between the research and development enterprise and the acquisition programs of record to enhance the effectiveness of the technology transition efforts. If confirmed I will work hard on improving collaboration.

137. What can be done from a budget, policy, and organizational standpoint to facilitate the transition of technologies from science and technology programs and other sources, including small businesses, venture capital funded companies, and other non-traditional defense contractors, into acquisition programs?

If confirmed, I look forward to working with the Office of the USD(R&E), the DoD labs, industry, academia, and acquisition programs to assess the processes in the Department of Defense to ensure all of the authorities that Congress has granted to the Department to facilitate technology transition from the S&T community to the Warfighter are being fully utilized to facilitate greater collaboration and to ensure the Warfighters maintain technological superiority.

138. Do you believe that the Department's science and technology organizations have the ability and the resources to carry technologies to higher levels of maturity before handing them off to acquisition programs?

Based on my experiences within the Army, I have no question as to the ability of the S&T community to carry technologies to higher levels of maturity – they do it today in support of PoRs. However, the resources typically required for this, the Advanced Component Development and Prototyping (Budget Activity 4) resources are often difficult to obtain. It will be important that these programs are fully funded to support future technology transition efforts.

139. What steps, if any, do you believe the Department should take to ensure that research programs are sufficiently funded to reduce technical risk in programs so that technological maturity can be demonstrated at the appropriate time?

I believe that the Department must follow a balanced approach that leverages its own research investments together with research by other Federal agencies and the commercial sector (including international developments) to advance technological maturity. It is clear that the Department cannot unilaterally fund all necessary underlying research. If confirmed, I will work with the Office of the USD(R&E) so that sufficient funding is allocated to ensure technology maturation. The goal of the Department is to reduce risk as early in the process as possible.

140. What role do you believe Technology Readiness Levels and Manufacturing Readiness Levels should play in the Department's efforts to enhance effective technology transition and reduce cost and risk in acquisition programs?

In my experience, technology readiness levels (TRLs) provide a necessary tool to assess technical maturity, but are insufficient in assessing systems integration and engineering risks. TRLs are useful in identifying and maturing the Critical Technology Elements enabling the key performance characteristics of advanced systems. They form an essential part of program managers' risk management strategies, planning, and execution. In my experience Manufacturing Readiness Levels are valuable. If confirmed, I will work with the Office of the USD(R&E) to evaluate their usefulness and will continue to make improving risk management of technology, engineering, and integration risks a priority.

Organic Industrial Base

141. What is your assessment of the status of the facilities and workforce in our depots, logistics centers, arsenals, and other elements of the organic industrial base?

In my experience the organic base is a very important asset for national defense, I have worked with many of them over my career and they did incredible work supporting those deployed. I am not current with the latest status of the facilities or the current work load situation. In many instances they provide a capability that doesn't exist anywhere else like energetics and explosives. If confirmed I will look into the current status of the organic industrial base.

142. What role does the organic industrial base play in modernization efforts and in the sustainment of warfighting capabilities?

The role of the organic industrial base is fundamental to both the modernization and sustainment of warfighting capabilities, underpinning the effective and affordable lifecycle sustainment of our weapon systems and equipment. The capabilities afforded by our core, government owned and government operated organic industrial base are essential to improving materiel availability and operational readiness. The combined engineer and maintainer workforce at the core of the industrial base serves as the point of integration which enables innovation, system modification, and technology insertion across our broad spectrum of weaponry, and repair capabilities. In many instances the organic base is the only source of a critical capability.

143. How can the research and engineering enterprise support the missions of the organic industrial base?

Supporting the critical sustainment missions of the organic industrial base requires a balanced approach from the research and engineering enterprise. Arguably, sustainment considerations have long been an ancillary concern in DoD's weapon system acquisition processes and R&D investment strategy. However, the recent focus on improving readiness and lethality across the defense enterprise has drawn an acute focus to sustainment technologies to provide innovative solutions to leading materiel availability degraders. Our ability to effectively and efficiently apply technology towards sustainment challenges will largely determine our success or failure in this endeavor. Our application of transforming technologies across the DoD must be coherent and consistent, while applying a unifying framework. Implementation of a comprehensive sustainment technology program would integrate and advocate for sustainment-centered technologies across the defense enterprise. This effort would promote a strategic proliferation of sustainment technology and capitalize on the availability of mature and proven technology to improve mission readiness. Advocacy and implementation of a comprehensive sustainment technology program would act as a nexus for applying and incentivizing technology solutions across the enterprise that would have high payoff for improving readiness and reducing cost. In some instances the organic base should be used to prototype and build new capabilities working with our labs.

Acquisition Workforce

144. What tools do you believe are needed to further shape the acquisition workforce?

Some of the tools needed to further shape the acquisition workforce in the future are:

- Expanded outreach to attract the nation's top talent using industry-proven methods
- Expanded DoD acquisition college internships
- Streamlined, easier and faster hiring processes
- Defense Acquisition Workforce Development Fund (DAWDF)
- Acquisition Demonstration Project permanence and expansion
- Competitive compensation and incentives

145. Do we need additional or different authorities to reward program managers who excel, and penalize those who fail, including termination?

I believe there are a variety of monetary and non-monetary rewards currently available to reward top performing program managers, although the rewards are sometimes different or limited for certain segments of the workforce (as is the case with financial rewards for active duty program managers). Likewise, there are ways to penalize and, if needed, replace those who are not performing as needed. If confirmed, I will review how to ensure these authorities are properly utilized and, if needed, seek additional authorities to reward high performance.

146. If confirmed, what steps, if any, will you take to empower program managers to execute major defense acquisition programs and hold them accountable for how well their programs perform?

I believe program managers must be empowered to ensure expected outcomes. This empowerment is achieved through delegation of certain specific authority and control of the program, proper development and support before and during their tenure as managers, and establishing an environment that enables success. I believe accountability is needed to ensure managers are liable or answerable. The goal of accountability is to tie rewards and consequences to specific actions, behavior, and outcomes. If confirmed, I will review how to best implement practices that empower program managers and hold them accountable for program performance.

147. Do you believe that more flexibility in compensation is needed to attract, recruit, and retain acquisition professionals to work for the Department of Defense?

Yes, the Department is at a disadvantage today when competing for top talent with industry especially in critical areas like cyber. I know much progress has been made with the use of the Acquisition Demonstration Project which provides broad pay-bands to compensate employees more effectively – based on contribution. The DAWDF is also a key tool for providing recruitment and retention incentives, to include tuition reimbursement and student loan repayment. We must also ensure stability and sufficient levels of the DAWDF. Both are critical to cultivating the workforce talent we need.

148. Do you believe that federal ethics laws are a barrier to acquisition professionals moving in and out of government? If so, what changes would you recommend?

There would be great value in making it easier for DoD and industry acquisition professionals to gain experience and share innovation in both domains. If confirmed, I will explore the legal and ethical restraints in place to see if there are changes we can recommend to make it easier to move back and forth between industry and government while staying compliant with needed ethical standards.

149. Do you foresee a need for longer assignments and career flexibility related to the Defense Officer Personnel Management Act relative to active duty acquisition professionals in order to keep them in place longer throughout the life of major defense acquisition programs on which they are working?

In general I agree that longer tenure leads to better acquisition program outcomes by encouraging consistency and accountability. Additionally, I believe the Department needs to ensure the proper manager is assigned as a program needs change with the program's phase, and to support active duty acquisition professionals so they can compete for promotion. If confirmed, I will review how to best assign tenure appropriate to meet the needs of our acquisition programs as well as how to support active duty workforce career progression.

150. What do you believe is the appropriate amount of time for a military program manager to remain in place while working a major defense acquisition program?

I believe military program manager tenure should be long enough to ensure program success. Longer tenures promote consistency and accountability. However, given that many major program lifespans are extremely long, and the fact that different phases of a program would benefit from managers with different skills, a well-timed change of the program manager can be beneficial to the program. One other factor that needs to be considered is how to manage the program management workforces to keep it viable and responsive to current and future needs. If confirmed, I will review how to best determine and enforce optimum program manager tenure length.

151. Do you believe that military personnel in the acquisition workforce should get Joint Professional Military Education credit for acquisition courses offered by the private sector or academia in lieu of those offered by the Department and the Defense Acquisition University?

If confirmed, I will explore this idea working with the Joint Staff and other leaders.

152. How do you believe the appropriate workforce mix should be determined between contractors, civilians, and military personnel within the acquisition workforce?

It starts with understanding the workforce capability needed – the requirement. Then we must understand the nature of the work to ensure sufficient organic personnel for inherently governmental functions and contractor oversight. Contractors provide an important flexibility and support capability to include providing the acquisition team expertise of the private sector.

153. What role can research activities at the Defense Acquisition University and in other organizations play in developing modern acquisition practices and tools, including data analytics and system analysis tools, to support acquisition professionals?

Defense Acquisition University (DAU) is well positioned within the defense acquisition community to align the goals of developing modern acquisition practices and tools. The University has long-standing relationships with research partners in the National Defense University, Naval Postgraduate School, Federally Funded Research & Development Centers (FFRDCs), University Affiliated Research Centers (UARCs), defense laboratories, and industry.

DAU has developed and widely promulgated a research agenda of key topics that research partners have incorporated into their research portfolios. In addition, DAU has established an on-line knowledge repository for making curated research available to the acquisition workforce both directly and through training and educational assets. DAU continues to disseminate new academic research via the Acquisition Research Journal. These robust research programs and partnerships can help identify data analytics and system analysis tools applicable to supporting defense acquisition.

154. What role should the Department play in ensuring that there is an adequate supply of technical talent available for the Department and industry partners to meet the technical challenges of the future?

DoD should play a major role in partnering with industry and education institutions to promote STEM education in high priority technical areas (e.g., cyber) and awareness of job and career opportunities.

Test and Evaluation

In order to develop and deploy next generation weapons systems, the Department of Defense must have robust test and evaluation capability—including modern testing facilities and a well-trained technical workforce.

155. Will you make it a priority to ensure that the Department as a whole, and each of the military services specifically, maintain their testing organizations, infrastructure, and budgets at levels adequate to address both our current and future needs?

Yes. The Department's test organizations and infrastructure play a critical role in the development and sustainment of the combat capability supporting all our warfighters. If confirmed, I will work with the Services and across the Department to address issues to ensure that we have adequate budgets, infrastructure, and workforce to support development of current and future capabilities.

156. Would you ensure that all testing organizations, including in the Office of the Secretary of Defense, have adequate resources to accomplish their missions?

Test ranges play a critical role in the development and sustainment of the combat capability supporting all our warfighters. If confirmed, I will support the USD(R&E) and the Services in ensuring the readiness of our nation's critical test mission including the Office of the Secretary of Defense level organizations that advise the Secretary on their implementation.

A natural tension exists between major program objectives to reduce cost and schedule and the test and evaluation objectives to ensure performance meets specifications and requirements.

157. What is your assessment of the appropriate balance between the desire to reduce new program cycle times and the need to perform adequate testing?

I believe today's weapon development landscape is far more competitive than even just a decade ago, and peer and near-peer adversaries are fielding threat capabilities and technologies at an alarming rate, thus the need to decrease program cycle times to field capabilities to the warfighter is critical to remain ahead of adversary threats. The Department and the Services must find the right balance for each program between the competing interests of decreasing acquisition cycle times and the amount of test and evaluation rigor so we are fielding reliable, robust, and effective capabilities faster, that will not fail our warfighters.

As the USD(A&S) and USD(R&E) reorganization matures over time, the developmental test processes and test organizations should also evolve to better inform decision makers on key technology investments. I believe developmental test standards and processes for cross-cutting capabilities such as prototyping and experimentation to increase understanding of technology and its impact on warfighting capability is critical to reducing program cycle times by early development testing of these systems. Developmental Test involvement in the evaluation of prototypes will add fidelity and realism to a technological readiness assessment decision. There needs to be continuous collaboration with the test community.

158. Under what circumstances, if any, do you believe we should procure weapon systems and equipment that have not been demonstrated through test and evaluation to be operationally effective, suitable, and survivable?

Thorough testing of a system in an operationally realistic environment is critical to inform production and fielding decisions by identifying deficiencies through assessing a system's operational suitability and effectiveness, before it is deployed in service. Procuring and delivering new weapons systems without conducting operationally realistic testing may expedite fielding and reduce the upfront acquisition costs, but can have deleterious consequences, which can actually increase the long term life cycle costs if systems cannot reliably perform their missions, are not effective in their execution, or are not available for deployment because of persistent maintenance failures. However, procurement of commercially available items within the civilian sector, which have an established track record of performance, and sufficiently matured technologies, are areas where the Department can avoid a lengthy and protracted test and evaluation program, in favor of a more tailored demonstration and expedited fielding. I think the assessment needs to be focused on the value to the war fighter.

Congress established the position of Director of Operational Test and Evaluation to serve as an independent voice on matters relating to operational testing of weapons systems. As established, the Director has a unique and direct relationship with Congress, consistent with the statutory independence of the office.

159. Do you support the continued ability of the Director of Operational Test and Evaluation to speak freely and independently with Congress?

Yes.

160. Do you believe that the operational and developmental testing organizations in the Department and the military services are adequate to ensure an appropriate level of testing, and testing oversight, on major defense acquisition programs?

I believe that the appropriate level of testing and testing oversight exists within the Department.

161. What are your views about the role of Developmental Test and Evaluation in ensuring the success of the Department's acquisition programs?

I believe Developmental Test and Evaluation is important to the success of major acquisition programs in the Department. A Developmental Test organization with sufficient resources and authority provides an independent assessment to inform decision makers through an accurate evaluation of program progress during the acquisition decision continuum, and more importantly, engages program offices with the goal of helping them succeed. OSD has to be supportive of the program manager and help then construct the right developmental testing for the program to be successful.

162. What role should the Office of the Secretary of Defense play in ensuring that adequate developmental test and evaluation are performed in acquisition programs?

I believe the Department needs to ensure enough testing is conducted so warfighters are equipped with affordable, effective, suitable, and survivable systems. The test sufficiency must be balanced against the immediacy of deploying urgent capabilities. OSD has to be supportive of the program manager and help then construct the right developmental testing for the program to be successful.

Cost Analysis and Estimation

163. What role will cost estimation and analyses play in your oversight over acquisition programs?

Accurate initial cost estimates are critical to proper program planning and ultimately to future program success or failure. Accuracy of these initial estimates is based on the understanding of the fundamental assumptions that program are based on. Root causes of major acquisition programs that have experienced Nunn-McCurdy breaches have shown a basic misunderstanding of these fundamental baselining assumptions that one violated resulted in significant cost and schedule growth. Understanding and tracking performance to these fundamental baselining assumptions is key to getting an accurate picture of how the program is performing.

164. What is your assessment of our ability to estimate life cycle costs of major systems?

Life cycle cost estimation is inherently a very difficult task. Even though support costs are often locked in early in the design process, variables such as annual budget, usage, reliability, and environmental factors can radically change the numbers. One thing I have seen being used successfully is establishing framing assumptions for the cost estimate and if those framing assumptions change the cost estimate should be re-evaluated. If confirmed I will evaluate items that drive variability in our estimating processes affecting its accuracy.

165. What is your assessment of our ability to estimate life cycle costs of software-intensive and IT systems?

The Department's track record for estimating life cycle costs for software intensive and IT systems has been poor. Further data-based research needs to be done to attribute causes for this inaccuracy. If confirmed, I will support research to investigate and attribute causes.

166. What steps will you take to improve the Department of Defense's cost estimation capabilities?

The Director of Cost Assessment and Program Evaluation (CAPE) has the statutory responsibility for producing accurate cost estimates; however, I note the necessity for the Department to clarify early on the technical, programmatic and business basis that the cost assumptions are being constructed from. If confirmed, I will work with the CAPE to improve cost estimating for acquisition programs.

167. There is growing concern, including from the Defense Innovation Board, that the Department does not make use of data to control acquisition costs and improve outcomes.

I agree that data analytics in decision making is extremely important and needs to be radically improved. If confirmed, I will make data analytics a priority.

168. How will you ensure data is shared in a manner that supports the cost analysis and evaluation needs of the Department?

If I am confirmed, I will make data transparency across all DoD functional components a priority.

Defense Industrial Base

169. What is your view of the current state of the U.S. defense industry?

In my view, today's Defense Industrial Base is more global, commercial, and financially complex than the one ten or fifteen years ago. Prime suppliers have increased their role as integrators and delegated down key innovation and development roles to a vast and complex network of sub-tier suppliers. Sub-tier suppliers have responded with their own complex

network of suppliers, some of which are small, highly skilled, and defense dependent firms – these small and specialized firms generally serve as the warning indicator that gauges the health of the overall industrial base.

Overall, our defense industry remains viable and competitive. As the industrial base continues to diversify, DoD contractors must constantly examine and realign their business activities while competing for capital in competitive markets. The good news is larger defense companies remain profitable; they are carefully managing shareholder value through equity buybacks, debt reduction, reduced capital expenditures, and reductions in the labor force. Reduced costs, more transparency, and accountability in spending can lead to greater efficiency. However, concerns about future budget levels, in part, impact companies' investment in their defense portfolios and sometimes deters new firms from working with the Department.

170. Do you support further consolidation of the U.S. defense industry?

The Department of Defense (DoD) relies on robust, credible competition to provide high-quality, affordable, and innovative products. The Department is mindful of the past loss of peer-to-peer competition at the prime level, resulting from significant industry consolidations over the past twenty-plus years. The Department works closely with the Antitrust Agencies to ensure merger and acquisition activity does not have an adverse impact on competition or cause market distortions that are not in the Department's ultimate best interest.

171. What role, if any, should the Department have in vetting and approving or disapproving such consolidation efforts?

The Federal Trade Commission (FTC) and the Antitrust Division of the Department of Justice (DOJ) (the "Antitrust Agencies") have the statutory responsibility to determine the likely effects of a business combination on the performance and dynamics of a particular market and whether a proposed merger should be challenged on the grounds that it may violate antitrust laws. As the primary customer affected by defense business combinations, the DoD's views are particularly significant because of its insight into a proposed merger's impact on competition, national security, and defense industrial base capabilities. The Department's current policy is to conduct assessments of proposed business combinations on a case-by-case basis and to support the Antirust Agencies' review process.

172. What is your position on foreign investment in the U.S. defense sector?

Generally, I support foreign investment in the U.S. defense sector because that investment has the potential to benefit the Department. Foreign investment can foster increased competition, leading to more innovation at lower costs. I do not think, however, that all foreign investment in the United States is benign. Therefore, we must carefully assess the national security risks arising from each investment in order to preserve our military technological advantage.

173. Are there security concerns for why the Department of Defense should consider maintaining a domestic supply source for certain goods or materials?

Absolutely; every time the Department utilizes foreign supply sources there are risks and security concerns. Reliable access to the materiel DOD needs is a bedrock requirement for the Department. Reliable access does not always necessitate a domestic source. The Department wants to take full advantage of the competitive benefits offered by access to the best global suppliers; and to promote consistency and fairness in dealing with its allies, all the while assuring that an adequate industrial base is maintained to support defense needs. Industry, in general, is becoming more integrated with global commercial markets.

However, this also brings increased cross-border flows of information and technology, reducing our technological advantage. Security concerns related to intellectual property theft are real and must be addressed proactively and carefully. In technology and capability areas that are globally competitive, our goal is to obtain the best product to support the Warfighter at the best price from the international marketplace. However, for those enabling technologies that are critical to maintaining superiority over our adversaries, we must seek to invest in domestic firms.

A healthy defense industrial base is a critical element of U.S. power and the National Security Innovation Base. The ability of the military to surge in response to an emergency depends on our Nation's ability to produce needed parts and systems, healthy and secure supply chains, and a skilled U.S. workforce.

174. What steps, if any, should the Department take to ensure the continued health of the U.S. defense industry?

The support for a vibrant domestic manufacturing sector, a solid defense industrial base, and resilient supply chains is a priority for the Department. I believe that the Department should pursue efforts to evaluate the current strengths and weaknesses of our defense industrial base. This evaluation should include the identification of materials essential to national security, contingencies that could affect supply chains, and technologies that are likely to be critical for the future. The Department also should focus efforts to encourage domestic investment. Where possible, the Department should work with industry partners to strengthen U.S. competitiveness in key technology and manufacturing capabilities. Lastly, the Department must maintain and develop skilled trades and high-technology skills through increased support for Science Technology Engineering and Mathematics, technical colleges, and apprenticeship programs.

175. To what extent should the Department make more use of commercial technology and commercial industry?

The Department generally buys major weapon systems through the defense acquisition system, a process that is highly tailorable, but still built around the assumption that DoD will compensate suppliers for product development, contract through Defense Federal Acquisition Regulations and be heavily involved in all aspects of the product life cycle. Congress and others have encouraged or recommended greater use of commercial technology and commercial industry practices. There are indeed times when using more commercial practices makes sense, and we should be alert to those opportunities in any aspect of defense procurement.

In all DoD acquisitions, however, we need to proactively look for ways to embed or insert the most current commercial technologies and fully utilize commercial industry. Where commercial approaches are justified, we need to spot and capitalize on the opportunity.

176. How can the Department make itself a more attractive customer to commercial industry?

For the Department, the importance of being a better customer arises not in the interest of suppliers, but from the government's duty to responsibly handle taxpayer dollars when awarding contracts. DOD needs the best technology available, the top minds and companies working on its problems, and the lowest cost-effective solutions for acquisition, operations, and services. The most important principle of being a better customer is recognizing that suppliers have a choice as to which markets to serve. Acquisition policy should create an environment which motivates suppliers to do business with the government.

The Department and the private sector can work together to develop a more comprehensive strategy to achieve acquisition goals by being both a better buyer and customer.

177. Do you support the inclusion of Australia and the U.K. in the National Technology and Industrial Base (NTIB) as mandated by the National Defense Authorization Act for Fiscal Year 2017?

Absolutely. The inclusion of Australia and the U.K. in the National Technology and Industrial Base (NTIB) was established in the FY 2017 NDAA. Canada was already included in the NTIB. The Office of Manufacturing and Industrial Base Policy has developed an implementation plan in partnership with the NTIB partners. I look forward to working to strengthen the NTIB in the coming months.

178. What do you believe is the strength of the NTIB?

The elimination of trade barriers and the improvement of the flow of defensive knowledge goods and services between the persons and organizations comprising the NTIB is an ideal for which to strive. The NTIB partners are some of our closest allies so any measures that improve how we collaboratively address common challenges are extremely important.

179. Do you believe there are other countries emerging at candidates to be included in the NTIB?

The development of the NTIB is still ongoing. Therefore, the admission of additional countries is premature.

<u>Manufacturing</u>

180. Do you believe that more attention and resources need to be paid to the development of low cost, advanced manufacturing capabilities?

Low cost manufacturing capabilities such as composite and additive manufacturing and printed flexible hybrid electronics have the potential to shorten the logistics train for our military, reduce inventory requirements, and enhance readiness. The Department should devote significant attention to fostering these technologies where they can make the most impact.

I am aware of advanced manufacturing investment programs across the Department such as ManTech and the Manufacturing USA Institutes are critical to maintaining a healthy industrial base.

The current Industrial Base Executive Order which the Department is leading, for example, will help in identifying industrial base gaps and issues and the level of investment necessary to maintain our technological advantage over our adversaries. If confirmed, I will evaluate the Department's position on low cost, advanced manufacturing and how it impacts our military readiness and requisite logistics support.

181. How will you assess the effectiveness of manufacturing technology programs and the manufacturing institutes?

The effectiveness of the ManTech program and the manufacturing institutes can be measured in various ways.

The ManTech program reduces risk for the transition and implementation of new technology into DoD weapon systems. One way to measure the effectiveness is by the return on investment in terms of cost savings or avoidance. The Department, for example, has documented over a $1 billion savings on the F-35 through OSD and Service manufacturing technology investments.

The Manufacturing USA Institutes are designed as self-sustaining public-private partnerships between government and industry/academia solving important, mostly pre-competitive advanced manufacturing challenges. The manufacturing institutes address both commercial and defense manufacturing needs within specific, defense-relevant technology areas and receive active participation and support from the military departments and defense agencies. For the institutes to be effective they need to develop and maintain a highly competitive, capable and innovative U.S. manufacturing ecosystem and a robust supply chain deeply connected to the Department of Defense, ensuring lasting U.S. technological dominance.

182. How will you work to ensure that advanced manufacturing capabilities are transitioned for use in the organic industrial base?

The Department's organic industrial base provides critical support our acquisition programs. The depots, logistics centers, arsenals, shipyards and other elements of the organic industrial base are critical to sustaining DoD's weapon systems. The USD(A&S) has stated that "sustainment costs on the F-35 are poised to become unaffordable." The Department must not let that happen for F-35 or any weapon system. The organic industrial base is DoD's strategic capability that ensures materiel availability requirements are met regardless of the war fighting scenario and sustainment demand signal. The USD(A&S) and USD(R&E) will need to work together to

balance investment for transitioning manufacturing technologies that address leading availability and sustainment cost drivers and develop improved methods to transition those capabilities.

Congressional Oversight

In order to exercise its legislative and oversight responsibilities, it is important that this Committee and other appropriate committees of Congress are able to receive testimony, briefings, and other communications of information.

183. Do you agree, if confirmed, to appear before this Committee and other appropriate committees of Congress?

Yes.

184. Do you agree, if confirmed, to appear before this Committee, or designated members of this Committee, and provide information, subject to appropriate and necessary security protection, with respect to your responsibilities as the ASD(A)?

Yes.

185. Do you agree to ensure that testimony, briefings, and other communications of information are provided to this Committee and its staff and other appropriate committees in a timely manner?

Yes.

186. Do you agree to provide documents, including copies of electronic forms of communication, in a timely manner when requested by a duly constituted committee, or to consult with this Committee regarding the basis for any good faith delay or denial in providing such documents?

Yes.

187. Do you agree to answer letters and requests for information from individual Senators who are members of this Committee?

Yes.

188. If confirmed, do you agree to provide to this Committee relevant information within the jurisdictional oversight of the Committee when requested by the Committee, even in the absence of the formality of a letter from the Chairman?

I will commit to providing all information sought by the Committee to the fullest extent and under the process requirements established in the law.