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IMPROVING STRATEGIC INTEGRATION AT THE DEPARTMENT OF DEFENSE

HEARING

BEFORE THE

COMMITTEE ON ARMED SERVICES UNITED STATES SENATE

ONE HUNDRED FOURTEENTH CONGRESS

SECOND SESSION

TUESDAY, JUNE 28, 2016

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IMPROVING STRATEGIC INTEGRATION AT THE DEPARTMENT OF DEFENSE

TUESDAY, JUNE 28, 2016

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

The committee met, pursuant to notice, at 9:32 a.m. in Room SH–216, Hart Senate Office Building, Senator John McCain (chairman of the committee) presiding.

Committee members present: Senators McCain, Inhofe, Sessions, Ayotte, Fischer, Cotton, Rounds, Ernst, Tillis, Reed, McCaskill, Manchin, Shaheen, Gillibrand, Blumenthal, Donnelly, Hirono, Kaine, King, and Heinrich.

OPENING STATEMENT OF SENATOR JOHN MCCAIN, CHAIRMAN

Chairman MCCAIN. Well, good morning. The committee meets this morning to receive testimony on improving strategic integration at the Department of Defense.

Last year, this committee conducted a series of 13 hearings on defense reform, receiving testimony from many of our Nation's most respected and experienced national security leaders. We determined that perhaps the top organizational challenge facing the Department of Defense is the subject of today's hearing. We included important provisions to address this challenge in the National Defense Authorization Act [NDAA] for the fiscal year 2017, which was recently passed the Senate with 85 votes. Now, we've done all of this work on a bipartisan basis, in keeping with the best traditions of this committee.

We're honored to have a distinguished group of witnesses this morning who are prepared to help us build upon the committee's important work to date:

Jim Locher, distinguished Senior Fellow at the Joint Special Operations University, was the lead staffer on this committee who helped to bring Goldwater-Nichols into being. We've benefited yet again from his experience over the past year, and we're pleased to welcome him back today.

Jim, welcome back.

Dr. Amy Edmondson, Novartis Professor of Leadership and Management at the Harvard Business School, who has written eloquently and extensively on breakthroughs in organizational learning, leadership, and change.

General Stanley McChrystal, former Commander of Joint Special Operations Command and Commander of U.S. and international forces in Afghanistan. He is now managing partner at the

McChrystal Group and a leading expert on organizational reform from the battlefield to the boardroom.

As most of you know, this is General McChrystal's first congressional testimony since retiring from the military.

General, I know you've missed us.

[Laughter.]

Chairman MCCAIN. So, on behalf of all of us——

[Laughter.]

Chairman MCCAIN.—so, on behalf of all of us, let me express this committee's gratitude and appreciation to you and your family for your decades of distinguished service and for your willingness to join us today. I'm pleased that we will benefit again from your wisdom and expertise.

As we have stressed from the start of this inquiry, our Nation is blessed by the many fine hardworking personnel, both military and civilian, in the Department of Defense. These are patriotic Americans who wake up every day to do difficult jobs, often foregoing easier careers and more lucrative opportunities because they care about the mission of keeping America safe. So many gave their all to it. Unfortunately, the organization in which they labor is not optimally structured to take full advantage of their talents.

In particular, previous witnesses before this committee have identified the following flaws in our defense organization: hierarchical planning and decisionmaking processes that too often result in lowest-common-denominator recommendations to senior leaders, what Michele Flournoy called "the tyranny of consensus"; misaligned bureaucratic incentives and a culture that too often rewards parochialism, inertia, risk avoidance, and the deferral of decisions; and layering of management structures in functional silos that too often result in decisions being forced to higher and higher levels of management. These and other organizational impediments do not only inhibit efficiency, they also pose an obstacle to greater effectiveness.

This is not the world of 30 years ago. America no longer has the margin for error that we once enjoyed. We no longer confront a single adversary, which an Industrial Age bureaucracy could manage. Instead, we face a series of global and enduring strategic competitions that all cut across our defense organization, which is often aligned around functional issues, regional geography, and separate warfighting domains.

As multiple witnesses have testified here, the only officials at the Department of Defense with the authority to integrate these activities at a strategic level are the Secretary and the Deputy. In an organization as vast as the Pentagon, that is an impossible burden to put on two people, no matter how capable. We must face the uncomfortable fact that too often, in too many cases, our enemies are getting the better of us. It's not that they're better led or better equipped or better positioned to succeed, or in possession of better strategies. In fact, the opposite is true. The problem too often is that we are simply too slow—too slow to adapt to changing circumstances, too slow to gain the initiative and maintain it, too slow to innovate, and too slow to do the vital work of strategic integration, marshaling the different functional elements of our defense

organization to advance unified strategies and implementing them effectively.

These problems are not unique to the Department of Defense. Many organizations have adopted reforms to overcome similar challenges, especially in the private sector, but also in government, from the National Counterterrorism Center to General McChrystal's transformation of the Joint—excuse me—of General McChrystal's transformation of the Joint Special Operations Command to similar reforms now unfolding at the National Security Agency and the CIA [Central Intelligence Agency].

All of these efforts have one idea in common, the idea of cross-functional teams, or, in military terms, joint task forces. The premise is simple. To succeed against our present and future challenges, we need flatter, faster-moving, and more flexible organizations. We've found that an effective cross-functional team has a few key things in common. It is focused on a discrete priority mission, it includes members from every functional organization and bureaucracy that is necessary to achieving that mission, and it empowers a team leader to organize the team's efforts, build a collaborative culture, and provide clear accountability for results.

As a result, the NDAA would require the Secretary of Defense to create six cross-functional teams to address our highest-priority defense missions. A related provision would direct the Secretary to identify one combatant command and organize it around joint task force headquarters rather than service headquarters. The goals of both provisions are the same, to improve strategic integration.

Now, judging by the Department's histrionic response, you would think that we had eliminated parking at the Pentagon. We've been attacked for micromanaging the Department, when this legislation is no more intrusive, and arguably less, than Goldwater-Nichols. We've been attacked for growing this bureaucracy, when the legislation would not add one billet to the Department. We've been attacked for not understanding cross-functional teams, when the examples of such teams that the Department gives in its defense are anything but. Most bizarrely, we have been attacked for undermining the Secretary's authority, when the legislation would do the opposite. The Secretary would identify the missions of the teams, pick their leaders, approve their membership, and direct their efforts.

Though disappointing, this reaction is not surprising. Change is hard. Reforms that empower the Secretary and improve the mission at the expense of entrenched bureaucratic interests are often resisted. This is how it was with Goldwater-Nichols and other reforms. But, of all the things that Congress is criticized for nowadays, often legitimately, this committee, at its best, has consistently identified strategic problems facing the Department of Defense [DOD] that it either could not or would not address on its own. When this committee has approached these problems seriously and rigorously, and proposed reforms on a bipartisan basis, even disruptive but necessary reforms, we've made the Department better in ways that it could not do by itself. In the fullness of time, it has often come to celebrate these efforts. I'm confident that the same will be true of the reforms in this year's NDAA.

I thank our witnesses for helping us with their testimony today.

My—I apologize for the length of my opening remarks, but I had to mention the visceral and emotional reaction that we're getting from these reforms from, particularly, the top levels of the bureaucracy at the Pentagon.

I thank you.

Senator Reed.

STATEMENT OF SENATOR JACK REED

Senator REED. Well, thank you very much, Mr. Chairman. I want to join you in welcoming our distinguished panel of witnesses.

Thank you all very much. You are uniquely qualified to discuss these proposals, given your vast expertise in so many different ways.

As the Chairman indicated, Jim Locher is a former committee staff member, was the principal author of the Goldwater-Nichols Act as well as the legislation that created Special Operations Command. In the period since those seminal achievements, he has continued to study and document management issues and reform opportunities for the Department of Defense and for the national security interagency process.

We look forward to your testimony and thank you, already, Jim, for your advice and assistance as we've moved forward.

General Stan McChrystal has significant knowledge and experience in Defense Department management and decisionmaking processes from his service as Director of the Joint Staff, the Commander, Joint Special Operations Command in the battle against al Qaeda in Iraq, with courage and great personal example and leadership—thank you—and, of course, Commander of Coalition Forces Afghanistan, and as a commander in the 504th Parachute Infantry Regiment. So, all of these things have given him the expertise needed for today's hearing. Since that time, as the Chairman has indicated, he has used his post-Active Duty service to apply these lessons in the context of other agencies, and teaching at Yale.

So, thank you very much, General McChrystal.

Finally, we're indebted to Professor Edmondson for agreeing to share with us her insights about the power of teams and what it takes to build and sustain them inside—over years of academic research at Harvard and reflected in many publications. I particularly have to thank you, and I think the committee does. Dr. Edmondson was informed last night that her plane was canceled, so she scrambled, grabbed her bag, and took off late last night so she could be here.

So, thank you, Dr. Edmondson, for this.

As the Chairman indicated, this is a very important hearing. The Office of Secretary of Defense and Department of Defense as a whole is organized around differentiated functions, just like most other enterprises. Large-scale organizations have struggled, since the Industrial Revolution, to find ways to effectively integrate across these silos of functional experts. DOD's burden in this regard is heavy. Its ability to integrate horizontally to create sound strategies and effectively execute missions acutely affects the national security.

During the same time as the Goldwater-Nichols Act was passed, in an effort to create jointness in the U.S. military, businesses around the world began to implement effective new methods for horizontal integration, methods that produced better outcomes in less time at lower levels of management. A principal innovation took the form of small empowered teams of experts from the functional components of an enterprise whose members were incentivized and rewarded for collaboratively behaving in the interests of the whole enterprise. These cross-functional teams ideally are the antithesis of committees or working groups whose members staunchly defend the narrow interests of their parent organizations. This teaming mechanism and the cultural changes necessary to support it has become highly developed in many organizations, and it's been widely adopted in the private sector.

Despite this long and broad experience, it still isn't easy. Even accomplished businesses that purposely pursue cross-boundary teaming often fail to do it right. But, when it is done correctly, the results can be remarkable. DOD and the government generally has not yet implemented such innovations. There are notable exceptions. General McChrystal has had success with cross-functional teams, which has enabled agility and integrated operations across a large-scale enterprise in his operation in Iraq. Also, Secretary [of Defense] Gates, himself, created a series of special task forces to address critical issues when the Pentagon's standard processes failed him, task forces that closely aligned with classic cross-functional teams.

Furthermore, the Directors of both the CIA and the National Security Agency, with the guidance of the consultant group, McKinsey, have undertaken major organization reforms at their agencies that have cross-functional teams at their core.

At this time, Defense Department leadership has concerns with the committee's proposal which is set forth in section 941 of fiscal year 2017 National Defense Authorization Act. They have stated that the Department already uses cross-functional teams routinely and that the committee proposal constitutes micromanagement.

I understand that the Department is going to have concerns over any external directive for changing its management and decision-making processes. However, I think that many of their concerns may be from a misunderstanding of the intent and scope of the committee's provision 941. I believe that the committee and the Department have a shared goal, and the committee wishes to see the Department push the envelope for the teams it already uses, building upon successful models of cross-functional teams that have been used in and outside of government. I would hope that the committee and the Department can have a dialogue to find common ground on ways to maximize the effect of this proposal so that national security benefits from an efficient management tool will be derived by the Department of Defense.

I believe this is a—hearing is an excellent first step in that dialogue, and I look forward to the witnesses' testimony. Thank you very much.

Thank you, Mr. Chairman.

Chairman MCCAIN. Before I call our witnesses, since a quorum is now present, I ask the committee to consider the list of 1,676

pending military nominations, including this list of the nominations of General David L. Goldfein, USAF [United States Air Force], to be General and Chief of Staff, United States Air Force; Lieutenant General Thomas D. Waldhauser, USMC [United States Marine Corps], to be General and Commander, United States Africa Command; Lieutenant General Joseph L. Lengyel, Air National Guard, to be General and Chief of the National Guard Bureau.

Of these 1,676 nominations, 85 nominations are 3 days short of the committee's requirement that nominations be in committee for 7 days before we report them out. No objection has been raised. These nomination—I recommend the committee waive the 7-day rule in order to permit the confirmation nominations of these officers before the Senate goes out before the 4th of July recess. I think there's one additional—one additional that we may look at—we may ask the committee later on.

Is there a motion to favorably report these 1,676 military nominations?

Senator REED. So moved.

Chairman MCCAIN. Is there a second?

Senator INHOFE. Second.

Chairman MCCAIN. All in favor, say aye.

[A chorus of ayes.]

Chairman MCCAIN. The ayes have it.

[Information referred to follows:]

MILITARY NOMINATIONS PENDING WITH THE SENATE ARMED SERVICES COMMITTEE WHICH ARE PROPOSED FOR THE COMMITTEE'S CONSIDERATION ON JUNE 28, 2016.

1. In the Navy there is 1 appointment to the grade of lieutenant commander (Justin C. Legg) (Reference No. 418)
2. **BG Matthew T. Quinn, ARNG to be major general** (Reference No.659)
3. In the Army there is 1 appointment to the grade of colonel (Bethany C. Aragon) (Reference No. 1102)
4. In the Army there is 1 appointment to the grade of colonel (Brian T. Watkins) (Reference No. 1105)
5. In the Army there are 12 appointments to the grade of colonel (list begins with Susan M. Cebula) (Reference No. 1109)
6. In the Army there are 89 appointments to the grade of colonel (list begins with John S. Aita) (Reference No. 1111)
7. In the Army there is 1 appointment to the grade of colonel (Jason B. Blevins) (Reference No. 1141)
8. **Capt. Phillip E. Lee, Jr., USNR to be rear admiral (lower half)** (Reference No. 1241)
9. **Capt. Alan J. Reyes, USNR to be rear admiral (lower half)** (Reference No. 1242)
10. **Capt. Mary C. Riggs, USNR to be rear admiral (lower half)** (Reference No. 1243)
11. **Capt. Carol M. Lynch, USNR to be rear admiral (lower half)** (Reference No. 1244)
12. **Capt. Mark E. Bipes, USNR to be rear admiral (lower half)** (Reference No. 1245)
13. **Capt. Brian R. Guldbek, USNR to be rear admiral (lower half)** (Reference No. 1246)
14. **Capt. Louis C. Tripoli, USNR to be rear admiral (lower half)** (Reference No. 1247)
15. **Capt. Robert T. Durand, USNR to be rear admiral (lower half)** (Reference No. 1248)

16. **In the Navy Reserve there are 6 appointments to the grade of rear admiral (lower half) (list begins with Shawn E. Duane)** (Reference No. 1250)
17. **Capt. Thomas W. Luscher, USNR to be rear admiral (lower half)** (Reference No. 1251)
18. **RADM(lh) Brian S. Pecha, USNR to be rear admiral** (Reference No. 1252)
19. **RADM(lh) Deborah P. Haven, USNR to be rear admiral** (Reference No. 1253)
20. **RADM(lh) Mark J. Fung, USNR to be rear admiral** (Reference No. 1254)
21. **In the Navy Reserve there are 3 appointments to the grade of rear admiral (list begins with Russell E. Allen)** (Reference No. 1255)
22. **LTG Joseph L. Lengyel, ANG to be general and Chief of the National Guard Bureau** (Reference No. 1290)
23. **Capt. Ronald R. Fritzemeier, USNR to be rear admiral (lower half)** (Reference No. 1295)
24. **In the Marine Corps there are 9 appointments to the grade of major general (list begins with Charles G. Chiarotti)** (Reference No. 1331)
25. In the Navy Reserve there are 8 appointments to the grade of captain (list begins with Timothy M. Dunn) (Reference No. 1351)
26. In the Navy Reserve there are 2 appointments to the grade of captain (list begins with Suzanne M. Lesko) (Reference No. 1352)
27. In the Navy Reserve there is 1 appointment to the grade of captain (Andrew F. Ulak) (Reference No. 1353)
28. In the Navy Reserve there are 3 appointments to the grade of captain (list begins with Kenneth N. Graves) (Reference No. 1354)
29. In the Navy Reserve there are 3 appointments to the grade of captain (list begins with Steve R. Paradela) (Reference No. 1355)
30. In the Navy Reserve there are 18 appointments to the grade of captain (list begins with Charles M. Brown) (Reference No. 1356)
31. In the Navy Reserve there are 2 appointments to the grade of captain (list begins with Robert K. Baer) (Reference No. 1357)
32. In the Navy Reserve there are 70 appointments to the grade of captain (list begins with Brian S. Anderton) (Reference No. 1358)
33. In the Navy Reserve there are 14 appointments to the grade of captain (list begins with Christopher J.R. Demchak) (Reference No. 1359)
34. In the Navy Reserve there are 3 appointments to the grade of captain (list begins with Janette B. Jose) (Reference No. 1360)
35. In the Navy Reserve there are 4 appointments to the grade of captain (list begins with Eric R. Johnson) (Reference No. 1361)
36. In the Navy Reserve there are 6 appointments to the grade of captain (list begins with Jarema M. Didoszak) (Reference No. 1362)
37. In the Navy Reserve there is 1 appointment to the grade of captain (Conrado G. Dungca, Jr.) (Reference No. 1363)
38. In the Navy Reserve there is 1 appointment to the grade of captain (Alexander L. Peabody) (Reference No. 1364)
39. In the Navy Reserve there is 1 appointment to the grade of captain (Jason G. Goff) (Reference No. 1365)
40. **General David L. Goldfein, USAF to be general and Chief of Staff, US Air Force** (Reference No. 1388)
41. **LTG Thomas D. Waldhauser, USMC to be general and Commander, US Africa Command** (Reference No. 1392)
42. **MG Charles D. Luckey, USAR to be lieutenant general and Chief of Army Reserve/Commanding General, US Army Reserve Command** (Reference No. 1426)
43. In the Navy there are 5 appointments to the grade of captain (list begins with Olivia L. Bethea) (Reference No. 1440)
44. In the Navy there are 64 appointments to the grade of captain (list begins with Roger S. Akins) (Reference No. 1441)
45. In the Navy there are 14 appointments to the grade of captain (list begins with Richard S. Adcock) (Reference No. 1442)

46. In the Navy there are 31 appointments to the grade of captain (list begins with Andrew M. Archila) (Reference No. 1443)
47. In the Navy there are 13 appointments to the grade of captain (list begins with Shane D. Cooper) (Reference No. 1444)
48. In the Navy there are 30 appointments to the grade of captain (list begins with Johannes M. Bailey) (Reference No. 1445)
49. In the Navy there are 31 appointments to the grade of captain (list begins with Susan L. Ayers) (Reference No. 1446)
50. In the Navy there are 12 appointments to the grade of captain (list begins with Michael D. Brown) (Reference No. 1447)
51. In the Navy there are 14 appointments to the grade of captain (list begins with John R. Anderson) (Reference No. 1448)
52. In the Navy there are 5 appointments to the grade of captain (list begins with Rachael A. Dempsey) (Reference No. 1450)
53. In the Navy there are 10 appointments to the grade of captain (list begins with Ann E. Casey) (Reference No. 1451)
54. In the Navy there are 10 appointments to the grade of captain (list begins with Claude W. Arnold, Jr.) (Reference No. 1452)
55. In the Navy there are 9 appointments to the grade of captain (list begins with Albert Angel) (Reference No. 1453)
56. In the Navy there are 9 appointments to the grade of captain (list begins with Thomas L. Gibbons) (Reference No. 1454)
57. In the Navy there are 215 appointments to the grade of captain (list begins with David L. Aamodt) (Reference No. 1455)
58. In the Navy there are 5 appointments to the grade of captain (list begins with Michael B. Bilzor) (Reference No. 1456)
59. In the Navy there are 15 appointments to the grade of captain (list begins with Paul D. Clifford) (Reference No. 1457)
60. In the Navy there are 8 appointments to the grade of captain (list begins with Errol A. Campbell, Jr.) (Reference No. 1458)
61. In the Navy there are 6 appointments to the grade of captain (list begins with Jeffrey J. Chown) (Reference No. 1459)
62. In the Navy there are 2 appointments to the grade of captain (list begins with Dewalt Brook) (Reference No. 1460)
63. In the Navy there are 4 appointments to the grade of captain (list begins with Aaron C. Hoff) (Reference No. 1461)
64. **In the Army there is 1 appointment to the grade of major general (Robert P. Walters, Jr.)** (Reference No. 1464–2)
65. In the Army there is 1 appointment to the grade of major (Shawn R. Lynch) (Reference No. 1480)
66. In the Army there is 1 appointment to the grade of major (Rita A. Kostecke) (Reference No. 1482)
67. In the Army there is 1 appointment to the grade of major (Helen H. Brandabur) (Reference No. 1483)
68. In the Army Reserve there is 1 appointment to the grade of colonel (Barry K. Williams) (Reference No. 1484)
69. **LTG Edward C. Cardon, USA to be lieutenant general and Director of the Office of Business Transformation, Office of the Under Secretary of the Army** (Reference No. 1494)
70. **BG Timothy P. Williams, ARNG to be major general** (Reference No. 1501)
71. **Col. Joseph J. Streff, ARNG to be brigadier general** (Reference No. 1502)
72. **In the Army Reserve there are 3 appointments to the grade of brigadier general (list begins with Anthony P. Digiacomo, II)** (Reference No. 1503)
73. **LTG David H. Berger, USMC to be lieutenant general and Commander, US Marine Corps Forces Pacific and Commanding General, Fleet Marine Force Pacific** (Reference No. 1504)
74. In the Air Force Reserve there is 1 appointment to the grade of colonel (Joseph H. Imwalle) (Reference No. 1505)

75. In the Army there is 1 appointment to the grade of colonel (Douglas Maurer) (Reference No. 1506)
76. In the Navy there is 1 appointment to the grade of lieutenant commander (Daniel L. Christensen) (Reference No. 1507)
77. In the Navy there is 1 appointment to the grade of commander (Howard D. Watt) (Reference No. 1508)
78. In the Navy there is 1 appointment to the grade of commander (Daniel Morales) (Reference No. 1509)
79. In the Navy there is 1 appointment to the grade of captain (Stefan M. Groetsch) (Reference No. 1510)
80. In the Navy there is 1 appointment to the grade of captain (Jeffrey M. Bierley) (Reference No. 1511)
81. In the Navy there is 1 appointment to the grade of lieutenant commander (Michael G. Zakaroff) (Reference No. 1512)
82. **MG Jeffrey L. Harrigian, USAF to be lieutenant general and Commander, US Air Forces Central Command, Air Combat Command** (Reference No. 1515)
83. **LTG Tod D. Wolters, USAF to be general and Commander, US Air Forces Europe; Commander, US Air Forces Africa; Commander, Allied Air Command; and Director, Joint Air Power Competence Centre** (Reference No. 1516)
84. **MG Stayce D. Harris, USAFR to be lieutenant general and Assistant Vice Chief of Staff and Director, Air Staff, US Air Force** (Reference No. 1517)
85. **MG Gwendolyn Bingham, USA to be lieutenant general and Assistant Chief of Staff for Installation Management** (Reference No. 1518)
86. **RADM Michael M. Gilday, USN to be vice admiral and Commander, Fleet Cyber Command/Commander, TENTH Fleet** (Reference No. 1519)
87. **RADM Colin J. Kilrain, USN to be vice admiral and Commander, North Atlantic Treaty Organization Special Operations Headquarters** (Reference No. 1520)
88. **LTG Glenn M. Walters, USMC to be general and Assistant Commandant of the Marine Corps** (Reference No. 1522)
89. **MG Gary L. Thomas, USMC to be lieutenant general and Deputy Commandant for Programs and Resources, Headquarters, US Marine Corps** (Reference No. 1523)
90. **MG Lewis A. Craparotta, USMC to be lieutenant general and Commanding General, I Marine Expeditionary Force** (Reference No. 1524)
91. **MG Joseph L. Osterman, USMC to be lieutenant general and Deputy Commander, US Special Operations Command** (Reference No. 1525)
92. In the Air Force there is 1 appointment to the grade of major (Lisa A. Seltman) (Reference No. 1526)
93. In the Air Force there are 2 appointments to the grade of major (list begins with Andrew M. Foster) (Reference No. 1527)
94. In the Army there is 1 appointment to the grade of lieutenant colonel (Ronald D. Hardin, Jr.) (Reference No. 1528)
95. **LTG Terrence J. O'Shaughnessy, USAF to be general and Commander, Pacific Air Forces; Air Component Commander for US Pacific Command; and Executive Director, Pacific Air Combat Operations Staff** (Reference No. 1533)
96. In the Navy there are 26 appointments to the grade of commander (list begins with Ron J. Arellano) (Reference No. 1534)
97. In the Navy there are 28 appointments to the grade of commander (list begins with Katie M. Abdallah) (Reference No. 1535)
98. In the Navy there are 31 appointments to the grade of commander (list begins with Matthew J. Acanfora) (Reference No. 1536)
99. In the Navy there are 44 appointments to the grade of commander (list begins with Kenneth O. Allison, Jr.) (Reference No. 1537)
100. In the Navy there are 481 appointments to the grade of commander (list begins with Benjamin P. Abbott) (Reference No. 1538)

101. In the Navy there are 16 appointments to the grade of commander (list begins with Peter Bissonnette) (Reference No. 1539)
102. In the Navy there are 35 appointments to the grade of commander (list begins with Mylene R. Arvizo) (Reference No. 1540)
103. In the Navy there are 15 appointments to the grade of commander (list begins with David R. Donohue) (Reference No. 1541)
104. In the Navy there are 12 appointments to the grade of commander (list begins with Randy J. Berti) (Reference No. 1542)
105. In the Navy there are 6 appointments to the grade of commander (list begins with Jodie K. Cornell) (Reference No. 1543)
106. In the Navy there are 16 appointments to the grade of commander (list begins with Patricia H. Ajoy) (Reference No. 1544)
107. In the Navy there are 14 appointments to the grade of commander (list begins with Erin M. Ceschini) (Reference No. 1545)
108. **RADM Marshall B. Lytle III, USCG to be vice admiral and Director, Command, Communications, and Computers/Cyber; Chief Information Officer, J–6, Joint Staff** (Reference No. 1385)
109. **LTG Stephen W. Wilson, USAF to be general and Vice Chief of Staff of the Air Force** (Reference No. 1550)
110. **MG Vera Linn Jamieson, USAF to be lieutenant general and Deputy Chief of Staff for Intelligence, Surveillance, and Reconnaissance, Headquarters, US Air Force** (Reference No. 1551)
111. In the Air Force there are 44 appointments to the grade of lieutenant colonel (list begins with David B. Barker) (Reference No. 1554)
112. In the Army there is 1 appointment to the grade of colonel (Edward J. Fisher) (Reference No. 1558)
113. In the Navy there is 1 appointment to the grade of lieutenant commander (Thomas W. Luton) (Reference No. 1559)
114. **MG Thomas W. Bergeson, USAF to be lieutenant general and Deputy Commander, United Nations Command Korea; Deputy Commander, United States Combined Forces Command; and Commander, Seventh Air Force, Pacific Air Forces** (Reference No. 1562)
115. **BG Thomas W. Geary, USAF to be major general** (Reference No. 1563)
116. **LTG John L. Dolan, USAF to be lieutenant general and Director for Operations, J–3, Joint Staff** (Reference No. 1564)
117. **MG Richard M. Clark, USAF to be lieutenant general and Commander, Third Air Force, US Air Forces in Europe** (Reference No. 1565)
118. In the Army there is 1 appointment to the grade of lieutenant colonel (David W. Mayfield) (Reference No. 1566)
119. In the Army there is 1 appointment to the grade of colonel (Michael P. Garlington) (Reference No. 1567)
120. In the Army there are 2 appointments to the grade of major (list begins with Noela B. Bacon) (Reference No. 1568)
121. In the Army there is 1 appointment to the grade of colonel (Elizabeth M. Miller) (Reference No. 1569)
122. In the Navy Reserve there are 4 appointments to the grade of captain (list begins with Jennifer L. Donahue) (Reference No. 1570)
123. In the Navy Reserve there are 3 appointments to the grade of captain (list begins with Steven D. Bartell) (Reference No. 1571)
124. In the Navy Reserve there are 2 appointments to the grade of captain (list begins with Nathan Johnston) (Reference No. 1572)
125. In the Navy Reserve there are 11 appointments to the grade of captain (list begins with Philip Armas, Jr.) (Reference No. 1573)
126. In the Navy Reserve there are 10 appointments to the grade of captain (list begins with Catherine O. Durham) (Reference No. 1574)
127. In the Navy Reserve there are 13 appointments to the grade of captain (list begins with James H. Burns) (Reference No. 1575)
128. In the Navy Reserve there are 3 appointments to the grade of captain (list begins with John M. Hardham) (Reference No. 1576)

129. In the Navy Reserve there are 8 appointments to the grade of captain (list begins with Philip J. Abeldt) (Reference No. 1577)
130. In the Navy Reserve there are 22 appointments to the grade of captain (list begins with Lauren P. Archer) (Reference No. 1578)

TOTAL: 1,677

Welcome, to the witnesses.

Dr. Edmondson, we'll begin with you. Thank you for appearing today.

STATEMENT OF AMY C. EDMONDSON, NOVARTIS PROFESSOR OF LEADERSHIP AND MANAGEMENT, HARVARD BUSINESS SCHOOL

Dr. EDMONDSON. Thank you so much for the opportunity to offer my perspective on the use of cross-functional teams. Of course, I am coming largely, but not exclusively, from research in the business world. What I hope to do is briefly explain the extensive use of teams in business, why teams are considered a necessity for success in highly complex, fast-paced work; and, second, I want to explain the requirements for success of such teams, which are not to be taken for granted; third, I offer some results of successful cross-boundary collaboration; and finally, a quick assessment of the approach described in section 941.

So, first, the use of teams in business organizations is undeniably widespread. Fast-moving global markets, disruptive technologies, and so forth, have forced technologies to find new ways to innovate in recent years, and teams play a central role in such innovation. But, teams are not new in the business world. In fact, since the 1980s, the implementation of teams has been recognized by both business leaders and business academics as a vital strategy. Most workplaces today find that almost 90 percent of people working in global corporations are spending at least half of their time in some kind of team or another. Whether it's production, sales, new product development, systems innovations, or strategy formation, work is increasingly carried out in teams.

I think there are two basic motivations explaining the pervasiveness of teams:

First, and probably most important, certain activities simply cannot be accomplished by individuals working in separate functional—in silos. This is because they simply require integration of disparate information, expertise, or interests, and hence, require realtime interaction.

Second, research shows that participating in well-managed teams promotes buy-in and commitment. In large, complex organizations, people often feel a deep sense of loyalty to their team, and this loyalty binds them to the organizations. When they have the chance to work on an effective team, doing meaningful work on behalf of the organization, it leads to all sorts of lateral benefits, like engagement and commitment, in addition to high performance.

Because it's central to my own research, I'll add that teams are a key mechanism for organizational learning. Analyzing existing processes and designing and implementing strategies and changes is fundamentally a team sport. It takes multiple perspectives to get it right. This is somewhat akin to the Army's after-action reviews, which, by the way, are widely celebrated by people in my field.

Change, of course, means anything from small process improvements to dramatic organizational transformations, such as those that allow iconic American companies, like IBM and Ford, to recover and thrive after extreme industry turmoil threatened their very existence, while other industrial giants, like DEC [Digital Equipment Corporation] or American Motors, disappear into history.

Now, I think it's important to note that teams come in many forms. I think the most widely celebrated and noted are self-managed teams in manufacturing, in service, leadership teams at the very top of organizations, and, of course, cross-functional teams, which are the engines of innovation.

So, consistent with section 941, I'm going to focus on cross-functional teams. These are teams that bring individuals together from different organizational units, or functions, to share responsibility for a specific deliverable. It's done because multiple areas of expertise or interests must be considered simultaneously in doing the work or solving the problem.

The clearest example of such work in business is new product development. Several decades ago, new product development was accomplished by people in separate functions—sales, marketing, design, engineering, manufacturing, accounting, and so on—each completing their respective tasks, and then effectively throwing them over the wall to another function to take over. Without back-and-forth discussion across expert fields, this led to poor-quality products and very long cycle times, because the complex problems of design, manufacturing, distribution, cost containment, and so on, can't be solved—certainly can't be solved in innovative and effective ways without that realtime interaction.

So, consider what happened when the United States automotive industry encountered steep competition from leading Japanese car manufacturers in the 1980s. The Japanese advantages were based, in part, on faster and higher-quality product development processes. Ultimately, this sparked—not quickly enough, mind you, but this sparked a dramatic revolution in product development in the U.S. carmakers in the 1990s, when cross-functional team approaches were implemented. As documented by some of my colleagues at Harvard Business School, cross-functional teams dramatically improved product innovation and development speed in the U.S. automotive industry, and brought them back into the game.

Today, to meet market expectations for time and quality, cross-functional teams are simply considered a necessity in most industries. No successful company, for example, would consider returning to the functional hierarchy for new product development. But, cross-disciplinary teams have also improved performance in patient care, supply-chain management, airline service, to name just a few arenas that have been extensively studied.

Yet, not every business task requires a team approach. For some activities, individuals, in fact, can work more effectively in—alone or alongside others in shared silos, which some people prefer to call "cylinders of excellence." Functional hierarchies work well when problems are well understood and activities are routine.

As General McChrystal will describe, I am confident, these management systems were designed based on a principle that managers at the top had all the information they needed to tell people what to do, when to do it, and what standards of performance were acceptable. This principle no longer holds when leaders lack the full expertise and information to design and control the work or when situations are moving too fast, and faster than communication can flow up and down the command-and-control structures.

So, for problems that are novel or need input or cooperation from multiple parts of the organization, it calls for a team approach. This is why people in my field increasingly call a company's ability to form and lead high-performance teams absolutely critical to its long-term success.

Now, my second point is more sobering, and briefer. Merely forming teams is not enough. Many teams fail because the necessary conditions for their success have not been implemented. These conditions are not outlandish or complicated. Rather, they will strike most of you as common sense. Yet, unless leaders invest the time and effort in setting teams up for success, the conditions will not be present.

First, teams must be designed well. This means they must be given a clear, engaging direction for their work. They must have appropriate composition, the right mix and size of skills for the work. They have to have access to resources and information, and leadership and coaching to help them manage the process.

Second, teams must have norms and processes and attitudes that enable teamwork. My own research emphasizes the impact of team-leader actions on this. For instance, in studies in several industries, I found that a climate of psychological safety is critical. Psychological safety means respect and trust, and basically an expectation that candor is welcomed. Psychological safety, however, matter most for teams with diverse backgrounds, whether that's functions, profession, status, nationality, and so forth. It matters especially in teams that are working on innovation projects.

A widely publicized recent study at Google found that psychological safety was, quote, "far and away the most important of five dynamics in explaining team performance." The other four, by the way, were team member dependability, structure and clarity of roles and goals, meaning—meaning that the people saw the work they did as personally important—and impact—people believe that the work they were doing mattered for the organization and, indeed, for the world.

In this Google study, as in many others, a major factor in whether teams had psychological safety was leader behavior. For teams to work, the organization's culture must be supportive of collaboration and teamwork. In my experience, organizations that try to change the culture by focusing on the culture often come up short. Rather, to create a collaborative culture, the key is to identify important work that requires collaboration to be accomplished, assign strong individual contributors to a team with a clear, engaging directive, and give them support and resources. It is through doing that kind of work in a new way that a new culture starts to take shape around it. In my view, shifting the work drives culture change, rather than the other way around.

Cross-functional teams will no doubt be intentioned with pre-existing functional structures, especially at first. This is exactly why it should be done. A part of their job is to force the organization to make changes in how things get done, and it can work well if the teams are supported from the top and if they're framed as a way to help educate and shift the organization from its current to its new state. This may sound like a lot of work, and it is, but it's good work, and it's—when it's done well, the results are worth the effort. It's not just the occasional wild new product development success that shows what can happen when a group of people work well together across boundaries to overcome obstacles.

So, my third task is to briefly describe such successes with the intent to tempt you to follow in their footsteps. The rescue of 33 miners in Chile suddenly and profoundly trapped between 2,000—beneath 2,000 feet of solid rock, following an explosion and collapse of part of the mountain, was one such example. Considered absolutely impossible at the outset, the rescue succeeded because of astonishingly effective and unusual collaboration across diverse experts. For 70 days, people from different organizations, sectors, industries, and nations worked together to innovate on the fly, learning fast and furiously, mostly from failure, as they generated and tested new ideas. Reflecting on the details of that rescue as—which I studied extensively, it becomes stunningly clear that a top-down command-and-control approach would have failed utterly.

What was required, facing the unprecedented scale of the disaster, was cross-boundary teaming, multiple temporary teams of people working on different types of problems, coordinating across these teams, as needed. It also required remarkably effective leadership at the level of the individual teams and at the very top of the organization.

The leader of the rescue operation, Andre Sougarret, came from Codelco, the state-owned copper mining company. He was invited by Chile's President, Sebastian Pinera, to help. Sougarret is technically brilliant, but, more importantly, he has astonishing organizational and interpersonal skills, and he knew how to lead complex teaming.

In the far less dramatic context of business, companies like Cisco and Google view cross-disciplinary teams as critical to their success, to shorten product life cycles, so forth. The remarkable business turnaround at Nissan in the early 2000s from the brink of bankruptcy to renewed market leadership is one of the best examples I know of how a very small number of cross-functional teams working with clear direction from the top can accomplish remarkable business results.

Very specifically, CEO Carlos Ghosn formed nine cross-functional teams early in his tenure. Each was asked to address a specific organizational and business problem. The teams were composed of middle managers and experts from different functions. Each was headed by a team leader, and each had direct access to two senior executives for direction, feedback, resources, and more. Each was challenged to come up with a specific proposal supported by clearly demonstrable financial impact. They worked tirelessly for months, and they succeeded beyond anyone's expectations, except perhaps Ghosn's. Team members reported the experience as exhausting, but

rewarding and meaningful. Within 2 years, the organization was on its way to recovery, with impressive market and financial success.

Lastly, I briefly comment on the recommendations in section 941, which struck me as highly reasonable and arguably overdue. Several of the objectives were—are particularly admirable and consistent with current best practice on the use of cross-functional teams in business. Notably, the desire to integrate expertise and capacities for effective and efficient achievement of Department missions, and to enable the Department to focus on critical missions that span multiple functional issues to frame competing and alternative courses of actions, and to make clear and effective strategic choices in a timely manner to achieve success.

I do agree that, if well implemented, cross-functional teams could help the Department to anticipate, adapt, and innovate rapidly to changes in the threats facing the United States, and to exploit the opportunities to counter such threats offered by technological and organizational advances. It's also reassuring that the section recognizes impediments, such as sequential hierarchical planning and decisionmaking processes oriented around functional and bureaucratic structures, and more. With awareness of these impediments, I think progress is far more likely through leaders taking precautions to plan and educate others.

In closing, great leaders in both business and government recognize the complexity and uncertainty in which their organizations are forced to operate today. It's their job to bring the organizational structures and cultures along so that they, too, can recognize and thrive in this new world. Teams are, by no means, a panacea; but, when well designed, well led, and motivated by the greater good, the results can be awe inspiring.

I hope that this brief perspective from a management researcher adds something of value to the discussion. It's an honor for me to offer my insights in the service of this effort.

So, thank you.

[The prepared statement of Dr. Edmondson follows:]

PREPARED STATEMENT BY AMY C. EDMONDSON, PH.D.

Chairman McCain, Ranking Member Reed, Members of the Committee:

Thank you for the opportunity to discuss the utility of cross-functional teams in business as input for the Department of Defense. My goal is to explain the extensive business use of teams, and why they are considered a necessity for success in today's highly complex, fast-paced world. I also wish to explain why many cross-boundary collaborations fail, along with what is known about the requirements for success. Finally, I will describe the exciting results of successful cross-boundary collaboration and teaming in modern organizations.

As background, my expertise is in Organizational Behavior. I am on the faculty at Harvard Business School, where I teach and conduct research on organizational learning, and leadership for the past 25 years.

THE EXTENSIVE BUSINESS USE OF TEAMS.

The use of teams in business organizations is widespread. Fast-moving global markets and disruptive technologies have forced companies to find new ways to innovate, and teams play a central role in innovation, as elaborated below. But teams are not new to the business world. Starting in the 1980s and gaining momentum in the 90s, the implementation of team-based structures has been long recognized by business leaders and academics as vital to organizational effectiveness. By 1998,

70% of workplaces with 50 employees or more employees had implemented teams.[1] In a recent survey, 88% of managers in global corporations reported spending at least half of their time working in teams.[2] In sum, work in today's companies—be it production, sales, new product development, systems innovations, or strategy formation—is increasingly carried out in teams.

Two basic motivations explain the pervasive use of teams in the private sector:

First, and most important, certain organizational activities cannot be accomplished effectively by functional hierarchies because they require people to integrate diverse information, expertise, or interests, through back-and-forth sharing of ideas, information, and constraints. When well-managed, diverse teams can accomplish this kind of work effectively and quickly.

Second, research has shown that participating in well-managed teams promotes commitment and buy-in. Indeed, teams are seen as a crucial element of high-commitment work organizations. In large, complex organizations, people often feel a deep sense of loyalty to their team members rather than to the company as a whole, and it is this loyalty that binds them to the organization. When individuals build relationships across functions or departments by participating on a team doing meaningful work for the organization, it leads to positive outcomes including better employee engagement, retention, and performance. In short, when teams work, both the technical and human dimensions of the organization are well served.

Teams also function as a key mechanism for organizational learning, itself a crucial source of competitive advantage in a fast-paced environment. Most companies use teams to analyze current processes and performance, and to design and implement necessary changes. This reflection-action capability is akin to the U.S. Army's after action reviews (AARs) widely celebrated by organizational researchers. This collective learning capability is important because today's business leaders consider ongoing organizational change a necessity for continued success in a changing world. By organizational change, I include small process improvements as well as the periodic major organizational transformations that allow iconic companies like IBM and Ford to recover and survive after extreme industry turmoil threatened their very existence, while other firms, such as DEC or American Motors, disappear into history.

CROSS-FUNCTIONAL TEAMS, COLLABORATION, AND COLLABORATIVE CULTURES

Teams come in many forms in the corporate sector, most notably self-managed teams, leadership teams, and cross-functional teams. The related terms, collaboration and collaborative cultures, describe attributes of effective teams, but do not directly indicate the existence of formal teams of any kind. Collaboration refers to the willingness of people, within and across company functions or departments, to help each other to solve problems or carry out work on behalf of the organization, especially in horizontal relationships. Collaborative culture describes an atmosphere and behaviors of cooperation trust, and mutuality an organization.

For the purpose of today's hearing, I focus on cross-functional teams, which are teams created for the express purpose of accomplishing work requiring multiple areas of expertise or interest to be considered concurrently. A cross-functional team brings individuals from different organizational units or functions to work together, with shared responsibility for a specific deliverable. The clearest example of such work in business is new product development (NPD). Several decades ago, NPD was accomplished by people working in separate functions—sales, marketing, design, engineering, manufacturing, accounting, and so forth—each completing their respective tasks and "throwing them over the wall" to the next function to take over. This was not only slow, it produced poorer quality products and services. Without what organizational scholars call "reciprocal coordination"—or back-and-forth discussions of merits, constraints, challenges and opportunities—complex problems cannot be solved in innovative and effective ways. In the U.S. automotive industry, blindsided by dramatically faster and higher-quality product development in leading Japanese car companies, a revolution in NPD occurred in the late 90s, when a cross functional team approach was implemented. As documented by Steve Wheelwright, Kim Clark and other scholars at HBS, cross-functional teams dramatically improved product innovation and speed of development in the US automotive and other industries.[3]

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[1] M. Gittleman, M. Horrigan, and M. Joyce (1998). "Flexible" Workplace Practices: Evidence from a Nationally Representative Survey. Industrial & Labor Relations Review, October 1998 52: 99–115.

[2] The Ken Blanchard Companies (2006). *Research findings:* The Critical Role of Teams. Accessed at *www.kenblancard.com,* June 24, 2016.

[3] Wheelwright, S. C., & Clark, K. B. (1992). *Revolutionizing product development: Quantum leaps in speed, efficiency, and quality.* New York: Free Press.

To satisfy market expectations with respect to time and quality, cross-functional teams are considered a necessity in most industries today. No successful company would consider returning to the functional hierarchy for NPD, for instance. Yet, crossdisciplinary teamwork is not solely for new product development. Such teams have also improved performance in patient care, supply chain management, and airline service, to name just a few that have been extensively studied.

Not every business task requires a team-based approach. For many activities, individuals can complete work more effectively alone and teams can slow down progress. Hierarchical management systems were designed based on the principle that managers had the necessary knowledge and perspective to tell people what to do, when to do it, and what standards of performance were acceptable. This principle no longer holds when leaders lack the full set of expertise and information needed to design and control the work, or when situations change faster than communication can flow up and down command and control structures. Functional hierarchies are a good design for efficiency, scale, cost control, and accuracy when managing routine and well-understood problems and activities. But certain problems—those that are novel and/or need input or cooperation from multiple parts of the organization—demand a team-based approach. This is why people in my field increasingly consider a company's ability to form, lead and nurture high-performance teams as critical to its long-term success.[4] Whether a business serves consumers ("B to C") or businesses ("B to B"), cross-functional teamwork is increasingly considered vital to the delivery of high quality products or services in a timely manner to customers.

Merely forming a team does not guarantee its success. Good design and good leadership are both crucial to ensuring that a team's potential performance translates into actual performance.

THE REQUIREMENTS FOR SUCCESSFUL CROSS-FUNCTIONAL TEAMS

Even when people agree about the need for teams (and/or the need for change), teamwork and change are difficult to implement. Existing culture, habits, processes, systems (including IT systems) and rewards can be barriers to success. Many people may sincerely agree with the case for change but fear losing power, or fear feeling incompetent in the proposed new organization. Or, people may not be given the resources to implement the change. A frequent culprit is leaders who fail to "walk the talk"—to model behaviors that demonstrate that they value collaboration. It is well known that people attach more importance to what leaders do than to what they say.

Many teams fail because the necessary conditions for their success have not been implemented. These conditions are not outlandish or complicated; rather they will strike most listeners as common sense. Yet, they cannot be taken for granted in organizations, because leaders may fail to invest the effort in setting teams up for success for a variety of reasons.

In short, team success starts with effective team design, including establishing a clear, engaging direction for the team's work, appropriate team composition (including the right size and skill mix for the work), access to necessary resources and information, and team leadership and coaching to help manage the team process. Next is the effort to develop the norms (attitudes and behaviors) and processes of healthy teamwork.

My own research examines both factors, design and process, but has particularly emphasized process, and the impact of team member beliefs and behaviors. Specifically, in multiple studies across industries, I have shown that a climate of psychological safety is an important factor in shaping team learning and team performance. Psychological safety refers to a climate characterized by mutual respect and interpersonal trust, in which candor is expected and welcomed. Psychological safety matters especially in teams characterized by diversity (of expertise, status, or demographics), and in teams working to innovate or create new processes. A widely publicized study at Google earlier this year found that psychological safety was "far and away the most important of . . . five dynamics" in explaining team performance at Google. The other four "dynamics" were team-member dependability, structure and clarity of roles and goals, meaning (people saw work they were doing as personally

[4] J.R. Katzenbach & D.K. Smith, (2006) The *Wisdom of Teams: Creating the high performance organization.* New York: Harper Business; Deloitte University Press: *Global Human Capital Trends 2016,* "The new organization: Different by design," accessed at *www.deloitte.com,* June 24, 2016.

important) and impact (people believed the work mattered and created change in the organization).[5]

Cross-functional teams will be in tension with the pre-existing functional structure, especially at first. This is exactly why they should be created. A part of their job is to force the organization to make changes in how things get done. This can work well for creating necessary changes, if the teams are supported from the top (with resources and support) and if they are framed as 'learning teams' to help educate and shift the organization from its current to a new state.

In my experience, organizations that try to change the culture by focusing on the culture often come up short. Rather, to create a more collaborative culture, the key is to identify important work that requires collaboration to be accomplished. Assign strong individual contributors to a team with a clear and engaging directive, and give them support and resources. It is by doing the work in a new way that a new culture starts to take shape. In my view, shifting the work drives culture change, rather than the other way around.

THE IMPACT OF SUCCESSFUL CROSS-BOUNDARY COLLABORATION ON MODERN ORGANIZATIONS

The results of successful cross-boundary collaboration can be truly remarkable. The dramatic rescue of 33 miners in Chile in 2010, trapped beneath 2000 feet of rock was one such example; the rescue involved collaboration across multiple areas of expertise, organizations and even industries, in which people had to work together to innovate on the fly through fast learning cycles.[6] Reflecting on the details of the rescue, which I studied extensively, it becomes stunningly clear that a top-down, command-and-control approach would have failed. What was required, facing the unprecedented scale of the mining disaster, was cross-sector teaming—multiple temporary teams of people working separately on different types of problems, and coordinating across these teams, as needed. It also required remarkably effective leadership—at the level of individual teams and at the very top of the rescue organization.

In the less dramatic context of business, leading companies like Cisco and Google view cross-disciplinary teams as critical to their success—to shorten project lifecycles and ensure that multiple perspectives are used to identify and serve client needs. In the public sector, breaking down silos can unleash improvements. A recent study conducted by Deloitte and the Harvard Kennedy School showed how public officials can mobilize people from different groups to work across boundaries to create value.[7]

Finally, a growing literature documents collaborations across companies and sectors that produce innovations and results that would be impossible for any organization to accomplish alone.[8]

The remarkable business turnaround at Nissan in the early 2000s—from the brink of bankruptcy to renewed market leadership—is one of the best examples I know of how a small number of focused cross-functional teams, working with clear direction from the top, can accomplish remarkable business results.[9] CEO Carlos Ghosn formed 9 crossfunctional teams early in his tenure; each was asked to address a specific organizational or business problem. The teams were composed of middle managers and experts from different functions. Each team was headed by a team leader and had direct access to specific senior executives for direction, feedback, resources, and more. Each was challenged to come up with a specific proposal supported by a clearly demonstrable financial impact; they worked tirelessly for months, and succeeded beyond anyone's expectation (except perhaps those of the company's confident CEO!). Team members reported the experience as exhausting but rewarding and meaningful. Within two years, the organization was on its way to recovery, with impressive market and financial success.

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[5] Duhigg, C. (2016) What Google learned in its quest to build the perfect team. *The New York Times Magazine* February 28, 2016.

[6] Edmondson, A.C. (2012). Teaming: How organizations learn, innovate and compete in the knowledge economy. San Francisco: Jossey-Bass.

[7] Eggers, W.D. and O'Leary, J. The power of cross-boundary collaboration. Accessed June 26, 2016 from *http://www.governing.com/columns/mgmt-insights/power-cross-boundary-collaboration.html*

[8] 8 A.C. Edmondson (2016) "Wicked Problem Solvers: Lessons from Successful Cross-industry Teams." Harvard Business Review 94, no. 6 (June): 53-59.

[9] M. Yoshino, and M. Egawa, (2006). Nissan Motor Co. 2002. Boston. Harvard Business School Case # 9-303-042.

COMMENTS ON THE ELEMENTS OF SECTION 941.

The recommendations of section 941 strike me as highly reasonable and arguably overdue. The following *objectives* in section 941 are as particularly salient and admirable; they are consistent with current best practice and theory on the use of crossfunctional teams.

- *To enable the Department to integrate the expertise and capacities of the components of the Department for effective and efficient achievement of the missions of the Department. (p. 694 bottom)*
- *To enable the Department to focus on critical missions that span multiple functional issues, to frame competing and alternative courses of action, and to make clear and effective strategic choices in a timely manner to achieve such missions . . . (p. 695)*
- *To enable the Department to anticipate, adapt, and innovate rapidly to changes in the threats facing the United States, and to exploit the opportunities to counter such threats offered by technological and organizational advances (p. 695)*

It is reassuring that the section recognizes the following impediments:

- *Sequential, hierarchical planning and decision-making processes oriented around functional bureaucratic structures that are excessively parochial, duplicative, resistant to integration, and result in unclear, consensus-based outcomes that often constrain the ability of the Department to achieve core missions effectively and efficiently*
- *Layering of management structures and processes that result in decisions being made by higher levels of management where the authority for cross-functional integration exists but detailed substantive expertise is often lacking or being reduced to lowest common denominator recommendations to senior leaders that suppress rather than resolve disputes across functional organizations.*

With awareness of these impediments, progress is far more likely, through leaders taking necessary precautions to plan and educate senior leaders and others.

I believe this important recommendation (from solutions) provides essential guidance. The goal should not be to create more task forces or committees to discuss and advise leadership about organizational challenges but to create cross functional teams, advised and empowered by top leadership to make decisions.

- *"Mission teams are decision-making organizations rather than advisory bodies" (p. 699)*

Great leaders in both business and government recognize the complexity and uncertainty in which their organizations must operate today. It is their task to bring their organizational structures and cultures along, so that they too can recognize and thrive in this new world. Teams are by no means a panacea. But when well-designed, well-led, and motivated by the greater good, the results can be awe inspiring. I hope that this brief perspective from a management researcher adds something of value to the discussion.

It is an honor for me to offer my insights in the service of this effort. Thank you.

Chairman MCCAIN. Thank you very much.

Before we continue, there's one additional nomination to be added to the military nominations. If there's objection—without objection, so ordered.

[Information referred to on page 6.]

General McChrystal, welcome back before the committee.

STATEMENT OF GENERAL STANLEY A. McCHRYSTAL, USA (RET.), MANAGING PARTNER, McCHRYSTAL GROUP

General MCCHRYSTAL. Thank you, sir. Chairman McCain, Ranking Member Reed, members of the committee, probably not surprisingly, I've slept very soundly for the last few years.

[Laughter.]

General MCCHRYSTAL. But, I woke up this morning, about 3:00 in the morning, bathed in sweat, and I sat up suddenly, and my wife, Andy, reached over, and she grabbed me, and she says, "What's wrong?" I said, "I'm having a nightmare. I think I've got to go testify in front of the Senate Armed Services Committee."

[Laughter.]

General MCCHRYSTAL. But, thanks for having me here today. I really appreciate the opportunity to discuss the potential value of cross-functional teams to the Department of Defense. I believe they offer great potential for the Department to cope effectively for what I think is a dramatically more complex operating environment that it currently faces, and it will face increasingly in the future.

As background, my experiences on the Joint Staff and in both Afghanistan and Iraq led me to conclude that we uniformly move forward with the best of intentions and often develop a potentially successful strategy, but encounter structural, institutional, and cultural obstacles to achieving the collaboration and synergy necessary to prosecute those policies and strategies effectively. This is not a new problem. Robert Komer's 1972 narrative on Vietnam, entitled "Bureaucracy Does Its Thing," argued that, "Independent of the wisdom or folly of our strategy, America's inability to effectively execute largely preordained failure." I reread his words in 2009, when I was in Afghanistan, and it felt like he was writing from Kabul.

It's not a lack of competence, courage, or commitment. We've honed a force of seasoned professionals, peerless in the mechanics of combat. But, Clausewitz reminded me that, at its heart, war is politics, and there's far more to achieving victory than tactical skill. We simply cannot forge the multiple components of our national power together into the kind of commitment—or teamwork needed.

Cross-functional teams are not the panacea for all the challenges of national security, but they represent an opportunity for fundamental change that should not be ignored. My belief in the power of these cross-functional teams was strongly reinforced when, in 2003, I took command of the Joint Special Operations Command, probably the best special operations force ever fielded. On paper, we had everything we needed to succeed—quality people, generous resourcing, and aggressive, thoughtful strategies. In Iraq, we were losing. Designed to conduct carefully planned raids against targets that had been exhaustively studied, our force was almost elegant in its precision, carefully crafted to combat traditional target sets.

But, 2003's al Qaeda in Iraq was fundamentally different from its namesake, Osama bin Laden's 1988 creation. Leveraging information technology to achieve a level of organic adaptability, they reflected characteristics, attributes, and capabilities never before seen in a terrorist organization. Against this constantly changing enemy, we found our insular collection of exquisitely honed skills unequal to the task. We were impressively capable for a war different from that which we found ourselves fighting. To win, we had to change.

So, we changed the way we did business. Traditionally built around a culture of secrecy, we aggressively shared information, delegated authority to more junior commanders, invited liaisons from other departments and agencies into our force, and formed a range of cross-functional teams. Together, these efforts enabled us to harness all the resources of the enterprise in support of our strategy.

But, it's important to make a small caveat. Much of the historical attention given to this evolution is placed on the procedural

changes I just described. You'll often hear it said that we became a network to defeat a network. That's a half-truth. It implies we threw away the hierarchy, which we did not. Many think there's a binary choice in today's world: be a stable, but slow, hierarchy or an agile, but less controllable, network. We actually became a hybrid of both models. We retained the stability of the hierarchy, but moved with the speed of a network, when needed. Cross-functional teams enabled that.

The cross-functional teams that we built during this time accomplished this feat by lowering the cultural and institutional barriers that had hampered us during the early days of the war. Removing these barriers enabled those teams to push information, share critical assets, such as air support, and, most importantly, built trust. This trust led to a common purpose that has historically eluded larger hierarchical organizations. The combination of trust and common purpose permeated everything we did as an organization. Information and asset-sharing would not have been possible without the knowledge that partners' forces were working toward the same goal and committed to the same fight. Interagency partners would not have shared information and resources if they did not trust our operators and analysts, and also known that we were all after the same goal. Trust and common purpose were the foundation upon which we could experiment with new processes. The result was the evolution of an elite tactical command into a networked, adaptable team of teams capable of strategic effect.

Since leaving the military, I've worked with industry leaders, many of whom have found themselves in complex environments that have silently overwhelmed their traditional ways of operating. Twentieth-century business practices, famously articulated by Frederick Winslow Taylor in "The Principles of Scientific Management" that relied on process optimization and workforce efficiency, are simply no longer effective. While Taylorism seems an antiquated relic of the Industrial Age, effects of this school of thinking have been surprisingly pervasive and insidious. While there have been some challenges to Taylorism and its precepts, the central belief that effective enterprise is a function of efficiency and the role of management is to provide directions on how best to advance this enterprise has been, until recently, relatively unchallenged. Quite frankly, Mr. Chairman, this approach has worked to varying degrees in a complicated world.

But, the complication has given way to the complex. The environment we exist in today is radically different from that of the 20th century. Mr. Chairman, members of the committee, it's worth spending a bit of time on the significance of operating in a complex environment, because we've entered into an age and an environment for which we are dramatically under-prepared.

We're used to operating in an environment where we expect that our actions will have a predictable and consistent effect. We no longer live in that world. In today's complex ecosystem, events are driven by causes that are so numerous, so intertwined that they elude our traditional attempts for prediction and planning. Transformation is essential to survival.

I've spent the last 5 years witnessing these kinds of transformations in the private sector, transformations akin to those that

I saw with the Joint Special Operations Command. But, these transformations begin with a choice. Organizations that effectively adapt to complexity make the conscious decision to assess their business and workforce against four capabilities, and, in my opinion, define adaptable teams: trust, common purpose, shared consciousness, and empowered execution. Only when they make the choice to honestly assess themselves against these criteria can they set the foundation for structural, institutional, and cultural change.

Before any procedural or structural effects can be taken, managers that have historically issued directives have to transform themselves into leaders that empower their workforce. No longer are they managers of efficiency; rather, they have to learn how to trust their employees, build trust among their employees, and enable their workforce, and set the conditions for their success. These efforts, when coupled with continued leadership and workforce training, result in an adaptable, resilient organization and business that has the ability to harness all the resources of the enterprise in support of a strategy. In essence, those that succeed in this transformation have invested in a movement away from a command structure to one defined by teams.

We've silently entered into a world of complexity, but have mired ourselves in a legacy approach that is no longer effective in affecting desired change. Many societal institutions have not evolved to adapt to this evolution. The Department of Defense, in particular, has responded with ever-increasing bureaucracy and procedures. I've seen, time and again, that additional policies and guidelines will not lead us to victory; rather, it's time to build the teams we need that can adapt to ever-increasing complexity. The willingness to implement these changes from senior leadership will have a—will determine success from failure in the years ahead.

Thank you.

[The prepared statement of General McChrystal follows:]

PREPARED STATEMENT BY GENERAL (RETIRED) STANLEY MCCHRYSTAL

Chairman McCain, Ranking Member Reed, Members of the Committee:

Thank you for having me here today to discuss the potential value of the use of cross-functional teams to the Department of Defense. As a general rule, I believe strongly that they offer great potential for the Department to cope effectively with the dramatically more complex operating environment it faces—and will increasingly face in the future.

As background, my experiences during two tours on the Joint Staff, and as Commander of the Joint Special Operations Command, and later NATO's International Security Assistance Force in Afghanistan, have led me to conclude that we uniformly move forward with the best of intentions, but often focus on the wrong thing. We fixate on finding optimal solutions to discrete problems, searching for the 'right' policy or strategy to a given challenge, and then find ourselves unable to effectively execute it.

I've concluded that identifying a compelling answer or clever strategy is easier than performing the actions necessary to implement it. The Department of Defense has bright and committed people who are dedicated to advancing American security interests and are intellectually capable of devising sensible and effective answers. But there are structural, institutional, and cultural obstacles to achieving the collaboration and synergy essential to prosecuting these policies and strategies effectively.

Let me be clear: this is not a new problem. While in Afghanistan in 2009 I reread Robert W. Komer's 1972 searing narrative on Vietnam entitled "Bureaucracy Does Its Thing" in which he concludes that "whatever the wisdom of the various United States decisions to intervene in Vietnam, there is also much to be learned by the way we went about it . . . This does much to explain why there was such an

immense disparity between the cumulatively massive effort mounted and the ambiguous results achieved. It also helps explain why such a gap emerged between policy and performance—between the guidelines laid down by the policymakers and what was actually done in the field." As I read his words in 2009, I felt as though Komer was reporting from Kabul.

A conclusion that I draw from these and other historical examples is that often it is not the conflict that is unwinnable; or even the crafting of an effective strategy; rather, it is our inability to execute that prevents our victory.

To be sure, we rarely struggle with the technical or tactical aspects of war. We have honed a force of seasoned professionals peerless in the mechanics of combat. But Clausewitz reminded us that, at its heart, war is politics, and there is far more to achieving victory than tactical competence.

Today we are discussing the potential value of Cross Functional Teams and they are clearly not the panacea for all the challenges of national security—far from it. But they represent an opportunity for fundamental change that should not be ignored.

My belief in the power of Cross Functional Teams was strongly reinforced when, in 2003, I took command of the Joint Special Operations Command—probably the best Special Operations Force ever fielded. On paper, we had everything we needed to succeed: quality people, generous resourcing, and aggressive, thoughtful strategies. Mr. Chairman, in Iraq we were losing.

Designed to conduct carefully planned raids against targets that had been exhaustively studied, our force was almost elegant in its precision—carefully crafted to combat traditional target sets. But 2003's al Qaeda in Iraq was fundamentally different from its namesake, Usama Bin Laden's 1988 creation. Leveraging information technology to achieve a level of organic adaptability, they reflected characteristics, attributes, and capabilities never before seen in a terrorist organization. Against this constantly changing enemy we found our insular collection of exquisitely honed skills unequal to the task. We were impressively capable for a war different from that which we found ourselves fighting.

Iraq held up a mirror to our forces and we realized that we were incapable of achieving the necessary synergy at the required speed. Our elite forces, we discovered, would not be able to execute our strategy unless we fundamentally changed the way that we operated. Like most organizations, the special operations community was proud and courageous, but the product of legacy structures, processes, and culture. To win we had to change.

We set about changing the way that we did business. Traditionally built around a culture of secrecy, we aggressively shared information with each other and with our interagency partners. Hierarchically structured, we delegated authority to more junior commanders and empowered them to take the necessary action to pursue the enemy. Historically separated from our interagency partners by an antiquated set of sclerotic bureaucratic processes, we invited liaisons from other Departments and Agencies and collocated them with our operators in an effort to overcome parochial infighting and increase common purpose.

These efforts, when taken in tandem, enabled us to harness all of the resources of the enterprise in support of our strategy. We would spend years refining this approach but the ultimate result was a tapestry of partnerships and information sharing that would fundamental change the way that we executed the fight.

But it is important to make a small caveat. Much of the historical attention given to this evolution is placed on the procedural changes I just described: you'll often hear it said that we became a network to defeat a network. That's a half truth. It implies that we threw away the hierarchy—which we didn't. Many think there's a binary choice in today's world—be a stable, but slow, hierarchy; or an agile, but less controllable, network. We actually became a hybrid of both models. We retained the stability of the hierarchy, but moved with the speed of a network when needed.

The cross-functional teams that we built during this time accomplished this feat by lowering the cultural and institutional barriers that had hampered us during the earlier days of the war. Removing these barriers enabled these teams to push information, share critical assets such as air support, and most importantly—build trust. This trust led to a common purpose that has historically eluded large hierarchical organizations.

The combination of trust and common purpose permeated everything we did as an organization. Information and asset sharing would not have been possible without the knowledge that partner forces were working towards the same goal and committed to the same fight. Interagency partners would not have shared information and resources if they did not trust our operators and analysts and also known that we were all after the same goal. Trust and common purpose were the foundation upon which we could experiment with new processes. The result was the evo-

lution of an elite tactical *command* into a networked, adaptable *team of teams* capable of strategic effect.

After I left the military, industry leaders wanted to learn how they too could create and use cross-functional teams. Many industry leaders found themselves in *complex* environments that had silently overwhelmed their traditional ways of operating. 20th century business practices that relied on process optimization and workforce efficiency were no longer effective. Much like my experience in Iraq, today's complex world held a mirror to industry leaders. They too realized that they were structurally incapable of operating at the speed required for success.

Much as we had relied on precision military strikes, many industry leaders had come to rely on antiquated notions of reductionist thinking. My team and I found that businesses were also subject to their environments—and the 20th century was squarely defined by the precepts of scientific management. This school of thought, epitomized by Frederick Winslow Taylor, emphasizes the need to optimize business processes by identifying a singular best practice that maximized efficiency and would be a requirement for all workers. Under this paradigm, creativity, flexibility, and the use of historical artisan practices by individual laborers were be replaced by systematically studied standards.

Beyond transforming industry processes, Taylor also changed the relationship between management and workers. In *The Principles of Scientific Management,* Taylor leaves little ambiguity regarding his thoughts on the relationship between the two when he wrote, "[A laborer] shall be so stupid and so phlegmatic that he more nearly resembles in his mental make-up the ox than any other type . . . he must consequently be trained by a man more intelligent that himself into the habit of working in accordance with the laws of this science before he can be successful."

When said like this, Taylorism seems antiquated and a relic of the Industrial Age. But the effects of this school of thinking have been surprisingly pervasive and insidious. While there have been some challenges to Taylorism and its precepts, the central belief that effective enterprise is a function of efficiency and the role of management is to provide directives on how best to advance this enterprise has been, until recently, relatively unchallenged. Quite frankly, Mr. Chairman, this approach has worked to varying degrees in a complicated world. But the complicated has given way to the complex. The environment we exist in today is radically different than that of the 20th century.

Mr. Chairman, Members of the Committee, it is worth spending a bit more time on the significance of operating in a complex environment because we have entered into an age and an environment for which we are dramatically underprepared. It is easy to focus on discrete problems or issues but what we are encountering as a society is much more fundamental.

We are used to operating in an environment where we expect that our actions will have a predictable and consistent effect. That is not the world we live in any longer. In a complex system, events are driven by causes that are so numerous, so intertwined, that they elude our traditional attempts for prediction and planning.

Many businesses are still structured for 20th century problems. I come across leadership teams that operate using antiquated management practices, trying in vain to master a complicated environment that has silently given way to complexity. Despite their best efforts, they have found that they cannot scale and adapt at the speed required to stay competitive. Many have learned what I concluded in Iraq: doing the same thing, but harder and with more intensity, will not lead to victory.

As the Special Operations community saw in Iraq, complexity cannot be confronted using antiquated methods. But redefining structures, processes, and cultures can enable an organization to work as a network. Building trust and common purpose across a team will ensure that the foundation is in place to have all resources leveraged towards the same problem—and any other problems that may arise out of this newly complex environment.

I have spent the last five years witnessing these kinds of transformations in the private sector—transformations akin to those that I saw with the Joint Special Operations Command. But these transformations begin with a choice. Organizations that effectively adapt to complexity make the conscious decision to assess their business and workforce against four capabilities that, in my opinion, define adaptable teams: *trust, common purpose, shared consciousness,* and *empowered execution.*

Only when they make the choice to honestly assess themselves against these criteria can they set the foundation for structural, institutional, and cultural change.

Before any procedural or structural efforts can be taken, managers that have historically issued directives have to transform themselves into leaders that empower their workforce. No longer are they managers of efficiency; rather, they have to learn how to trust their employees; build trust amongst their employees; and enable their workforce and set the conditions for their success.

I've come to believe these managers will have learned how to lead like gardeners by tending to their workforce, providing the conditions for success, and allowing teams to grow to meet their business challenges. They know when to get involved and, just as importantly, they know when to step back and give their teams space and freedom to operate.

Once leaders have critically assessed themselves, they need to assess the organization. Leadership needs to understand the level of trust within the organization because all future cooperation and collaboration stems from individual and organizational trust. They also need to honestly assess whether employees and business units are working towards a common purpose, or whether legacy compensation structure incentivize individuals and business units to watch out for themselves. Executive teams should know whether teams have the requisite information to accomplish their goals, and whether these teams are empowered to act on timely and sensitive information.

These foundational efforts enable companies to create the processes and structure that link strategy to execution. Much as the efforts of the Special Operations community led to the organic creation of cross-functional teams, building trust and common purpose throughout businesses allows them to operate as networks. Trust enables teams and individuals to honestly and constructively assess their goals, priorities, and efforts against those of the rest of the organization. Common purpose, built through leadership, education, and time, will align an organization towards an overall strategy.

I have seen businesses create cross-functional teams using many of the same tools that the Joint Special Operations Command used in Iraq and Afghanistan. Businesses create clear plans that outline vision, mission, and guiding principles. Once they set the true north goals for the organization, executives encourage their business units to create supporting objectives, strategies, and initiatives. Following these efforts to strategically align the organization, leadership teams conduct an analysis of how to empower the workforce by determining decision-making roles and delegating authority to the lowest possible level.

Business leaders then bring this construct to life through the establishment of information-sharing forums, very much like we did in the Special Operations community through the daily Operations and Intelligence briefs. These forums serve as both the lifeblood and connective tissue necessary to create a networked, adaptable organization. Executive teams have the opportunity to provide overall guidance to the organization while business units can provide feedback, best practices, and critical information to enable timely action.

Much as Special Operations Forces partnered with interagency counterparts to quickly identify and act upon opportunities, the aggressive flow of information throughout the organization both enables the identification of business opportunities that may have otherwise been missed as well as the quick creation of cross-functional teams across business units to take advantage of these opportunities.

In a previous life, I saw leads from intelligence community partners trigger a series of raids against a terrorist or insurgent network. Now I see sales teams providing insight to developers on customer requirements; financial advisors from different divisions collaborating on how best to service an important client; and insular technical researchers collaborating with one another on which tools can best advance their collective work.

What is equally important is what I didn't see. During my leadership of the Joint Special Operations Command, I consciously took myself out of tactical-level decisions. This enabled my units to quickly pursue opportunities that my involvement would have otherwise delayed. Similarly, I see business executives similarly taking themselves out of lower-level business operations. They are allowing their teams to react quickly to fleeting opportunities. The rapid pursuit of these transient openings allows an organization to face complexity by mobilizing rapid responses based upon relevant and timely information—not the predilections of an executive team whose position is based on increasingly obsolete methods of planning.

These efforts—when coupled with continued leadership and workforce training—result in an adaptable, resilient organization or business that has the ability to harness all of the resources of the enterprise in support of that strategy. In essence, those that succeed in this transformation have invested in a movement away from a *command* structure to that defined by teams.

My experience in the military and advising industry has taught me that we can take the most brilliant people in the world, put them up against a problem, and they will fail if the structural, cultural, and institutional conditions do not support effective execution. I believe this is the case with the Department of Defense.

We have silently entered in a world of complexity but have mired ourselves in a legacy approach that is no longer effective in effecting desired change. Many societal

institutions have not evolved to adapt to this evolution. The Department of Defense in particular has responded with ever-increasing bureaucracy and procedures. I've seen time and time again that additional policies and guidelines will not lead us to victory. Rather, it is time to build the team we need that can adapt to ever increasing complexity. The willingness to implement these changes from senior leadership, however, will determine success from failure in the year ahead.

It has been a great pleasure and honor for me to offer my lessons and experiences in the service of this effort.

Thank you.

Chairman MCCAIN. A very strong and very informative statement, General, based on many years of experience, and we thank you.

Mr. Locher, for the benefit of my colleagues, once served as staff director of this committee and was one of the key persons in the framing and passage of Goldwater-Nichols. He and I were together in the Coolidge administration.

[Laughter.]

Chairman MCCAIN. Go ahead. Welcome back, Mr. Locher.

STATEMENT OF HONORABLE JAMES R. LOCHER III, DISTINGUISHED SENIOR FELLOW, JOINT SPECIAL OPERATIONS UNIVERSITY

Mr. LOCHER. Thank you, Mr. Chairman. I'm delighted to be here for this important hearing.

Mr. Chairman, I commend you and Senator Reed for your bold leadership on section 941. If enacted, this provision would initiate a long overdue revolution in defense organization. As with all major change efforts, legislative approval and Pentagon implementation will not be easy.

Many similarities exist between the Goldwater-Nichols Act and section 941. In both cases, decades of evidence showed the need for fundamental organizational changes. Today, as in 1986, the Pentagon bureaucracy is in denial about its organizational defects, and is actively resisting congressional efforts. Just like in 1986, this committee needs to overrule this predictable initial response from the defense bureaucracy, work directly with Pentagon top leaders, who should be able to see the merits of this provision, press ahead with section 941, and revitalize the Pentagon.

The committee's 13 hearings last fall revealed many organizational problems hampering Pentagon performance. Section 941 addresses 4 of these problems:

First, the rigid functional structure of the Pentagon which hampers collaboration, limits a focus on missions and results, demands more people and more management levels, resists new ideas, and sub-optimizes decisions. The Pentagon's nearly exclusive reliance on functional structure denies an ability to handle the complexity and pace of today's defense challenges.

The second problem, Mr. Chairman, involves processes, such as the planning, programming, budget, and execution system. Pentagon processes are sequential, stove-piped, consensus-driven, and Industrial Age. The Pentagon's bureaucratic culture and its functional orientation have shaped the design of these ineffective processes.

The third problem centers on weak civilian leadership traditions. The Office of the Secretary of Defense has given insufficient atten-

tion to leadership tasks and leadership development. The emphasis has been on technical and functional skills, not leadership skills.

The fourth problem arises from the Pentagon's culture, which is too rule-oriented, bureaucratic, risk-averse in decisionmaking, and competitive among components. Although the Pentagon's culture is typical of most public sector organizations, it is misaligned with what is required for effective performance in today's complex, fast-changing security environment.

Some of the organizational problems were identified at the time of the Goldwater-Nichols Act, quite a while ago. The Senate Armed Services Committee staff study observed, and I quote, "Lost in the functional diffusion of the current Department of Defense organization is a focus on the central strategic objectives and missions of the Department of Defense." There have been efforts between Goldwater-Nichols and now to create cross-functional teams in the Department of Defense. Secretary William Perry tried so in 1995, and Deputy Secretary of Defense Gordon England, in 2006, sought to create these cross-functional teams, but did not succeed.

In his testimony before the committee and his recent book, "A Passion for Leadership," Secretary Robert Gates registered his frustration with the bureaucratic hierarchy, its lack of lateral communications, and its consensus decisionmaking. Gates observed that the only way he could get things done was to create special multidisciplinary task forces equivalent to cross-functional teams. He related, and I quote, "In every senior position I held, I made extensive use of task forces to develop options, recommendations, and specific plans for implementation. I relied on such *ad hoc* groups to effect change instead of using existing bureaucratic structures, because asking the regular bureaucratic hierarchy almost never provides bold options or recommendations that do more than nibble at the *status quo.*"

Secretary Gates used crosscutting task forces, and I quote, "because so many different elements of the Pentagon were involved, and because they were," in his words, "immensely useful, indeed crucial." Significantly, in his testimony last October, Secretary Gates concluded that periodic intervention by task forces with the intense personal involvement of the Secretary was not, to use his word, "sustainable." He expressed regret that an institutionalized solution to this problem was not found before he departed the Pentagon.

Mr. Chairman, section 941 provides the institutional fix that Secretary Gates sought. Four of the five major elements of section 941 are tightly linked to the Pentagon organizational problems I described. The other, and the one that appears first in section 941, is—requires an organizational strategy, an overarching blueprint to guide the four other elements and all other required organizational changes.

The second element of section 941 would require the Secretary of Defense to establish cross-functional teams to manage major missions and other priority outputs that are intrinsically cross-functional. These mission teams must be the centerpiece of any plan for improving Pentagon performance.

The third element of section 941 would require actions to begin to shape an organizational culture that is collaborative, team-ori-

ented, results-oriented, and innovative. Culture is so important and difficult to change, it requires a persistent leadership emphasis and proper incentives for the rank-and-file.

The fourth element would prescribe training and personnel incentives to support these new approaches. Among its prescriptions, this element would require completion of a course of instruction in leadership, modern organizational practice, collaboration, and functioning of mission teams for Senate-confirmed officials in the Department of Defense.

The fifth element would require the Secretary of Defense to take appropriate action 1 year after his or her appointment to simplify OSD's [Office of the Secretary of Defense] structure and processes. Once it is clearly established that empowered mission teams will be responsible for cross-functional work under the close supervision of the Department's top leadership, it should be much easier to identify unnecessary and duplicative organizational structures and ineffective crosscutting teams.

As I mentioned, Mr. Chairman, the Pentagon has not yet endorsed the opportunity afforded by section 941. To date, the administration alleges that this provision is overly prescriptive and would undermine the authority of the Secretary, add bureaucracy, and confuse lines of responsibilities. These concerns are entirely misplaced and suggest a lack of understanding of collaboration and teaming concepts or a lack of understanding of the intent of section 941. If section 941's prescriptions were faithfully implemented, they would empower the Secretary, streamline bureaucracy, and clarify responsibility for cross-functional integration.

Organizations cannot normally reform themselves. The Pentagon has repeatedly demonstrated its inability to undertake organizational change, even when evidence of the need for change is compelling. As Secretary Gates and other Pentagon leaders discovered, they could occasionally override bureaucratic norms, but they could not reform the institution for lasting improvements in performance.

Mr. Chairman, given the Pentagon's longstanding inability to correct its organizational defects, Congress would be fully justified, even obligated, just as it was in the Goldwater-Nichols Act, to use its constitutional powers to make rules for the government in regulation of the land and naval forces. Congress has a right to demand that the Department of Defense adopt 21st century organizational practices, that it have an organizational strategy, that it employ cross-functional teams for cross-functional missions and work, that it have an organizational culture aligned with operating requirements, that it provide proper training and incentives, and that it employ simplified structure and processes.

Section 941 contains the right ideas to launch the Pentagon on the use of cross-boundary collaboration. It provides better and faster ways of integrating expertise and making decisions that are imperative in today's complex, fast-paced security environment. It also finds the right balance between congressional mandate and freedom of action for the Secretary of Defense.

In conclusion, Mr. Chairman, I congratulate the committee on this historic initiative. This is precisely the sort of well-researched, well-grounded, empirically justified intervention by Congress that

is needed from time to time. In due time, it will be widely admired for its impact.

The transformational changes envisioned in section 941 would require inspired, committed leadership by senior Pentagon officials, and vigorous oversight by Congress. However, once instituted, pursued, and perfected, the use of cross-functional teams can have a positive impact every bit as great as the original Goldwater-Nichols legislation.

To take this historic step, all the committee has to do is stay undeterred on its current course. For the benefit of those we send in harm's way and the entire Nation, I encourage you to do so.

Thank you, Mr. Chairman and Senator Reed and all the members of the committee, for your visionary leadership on this critical issue.

[The prepared statement of Mr. Locher follows:]

PREPARED STATEMENT BY JAMES R. LOCHER III

I commend Chairman McCain and Ranking Member Reed for their bold leadership on section 941 in the Senate's version of this year's National Defense Authorization Act. If enacted, this provision would initiate a long overdue revolution in defense organization. As with all major change efforts, legislative approval and Pentagon implementation of section 941 will not be easy, but if successful, resulting improvements in performance would be transformational.

Many similarities exist between the Goldwater-Nichols Act and section 941. In both case, decades of evidence showed the need for fundamental organizational changes. In 1986, the Pentagon bureaucracy was in denial about its organizational defects and actively resisted congressional efforts. Senior Pentagon officials blasted the Senate Armed Services Committee's draft of the Goldwater-Nichols Act. The Secretary of the Navy said its proposed strengthening of combatant commanders "would make hash of our defense structure." The Commandant of the Marine Corps said, "I know of no document which has concerned me more in my 36 years of uniformed service to my country." The Chief of Naval Operations declared that the bill "was terribly flawed and certainly not in the best interests of national security." The Army and Air Force Secretaries and Chiefs also criticized the committee's draft. Even after the Senate approved the Goldwater-Nichols Act by a vote of 95–0, Pentagon hardliners were urging a presidential veto. Since then, however, history has provided overwhelming evidence of the wisdom of Congress in overruling Pentagon objections and mandating sweeping defense reforms.

This scenario is playing out again this year. The Senate Armed Services Committee has identified major organizational problems and has proposed in section 941 farsighted solutions. The issue is largely the same as in 1986, except that the proximate problem is not the inability to orchestrate cross-service collaboration at the strategic and operational levels. Instead, the problem is the inability to orchestrate cross-functional collaboration among the Pentagon's many bodies of functional expertise. The Pentagon's inability to manage cross-functional security problems quickly and authoritatively results in poor direction and support to our deployed military forces around the globe. This committee is intent on giving the Secretary of Defense the tools to remedy this deficiency.

In response, the Pentagon has strongly objected to the committee's proposed provision, alleging it "would undermine the Secretary of Defense's ability to exercise authority, direction, and control over the Department; blur lines of responsibility and control over resources; require the issuance of numerous unnecessary and burdensome policies, directives, and reports." Just like 1986, the committee needs to overrule this predictable initial response from the defense bureaucracy, work directly with the Pentagon's top leaders who should be able to see the merits of the provision, press ahead with section 941, and renew and revitalize the Pentagon's headquarters.

ORGANIZATIONAL PROBLEMS AND THEIR CAUSES

Before discussing organizational problems in the Department of Defense (DOD), I would like to offer two important observations. First, arguing for dramatic changes in Pentagon organization does not represent a criticism of defense civilian or military personnel. They are working extremely hard and with unyielding commitment.

Unfortunately, much of their hard work is wasted in an outdated system. Measures to enable Pentagon staff to work smarter, not harder, need to be put in place.

Second, for all of its deficiencies, the Department of Defense is widely seen as the most capable Federal department. This is in large part due to the quality and drive of its workforce, and a military culture that values detailed planning processes to cover "what if" and "what next" contingencies. But because the Pentagon confronts the government's most dangerous and diverse challenges, being better than the rest of the government is not a useful yardstick for measuring performance. Instead we must ask whether the department is capable of effectively accomplishing the full range of its missions. The last fifteen years offer considerable evidence that it is not.

The committee's thirteen hearings last fall revealed critical organizational problems hampering Pentagon performance. Testimony addressed many symptoms of these problems:

- A steady growth in the number of personnel.
- Excessive number of management layers and senior personnel.
- Poor information sharing.
- Processes are slow, cumbersome, and frequently over-centralized.
- Inability to make clear strategic choices—Decisions watered down to achieve consensus. Consensus products avoid and obscure difficult trade-offs, clear alternatives, and associated risks.
- In the absence of a guiding strategy, the budget drives strategy, rather than vice versa.
- Slow rates of innovation—The Pentagon has repeatedly shown it is not a learning organization.
- The Pentagon cannot integrate its functional activities (e.g., manpower, acquisition, policy) along mission or outcome lines—There is a weak mission orientation. The focus is on material inputs, not mission outputs. Limited cross-boundary collaboration has resulted in duplicative efforts and "shadow organizations" (parallel structures created because of distrust of other offices sharing information or being responsive). Integration can only be performed at the level of the Secretary and Deputy Secretary of Defense, and then only infrequently and often late to need.
- The Office of the Secretary of Defense (OSD) is increasingly unmanageable, unwieldy, and underachieving—Accountability is unclear, and decision rights are uncertain, especially for cross-functional issues.
- Secretaries and Deputy Secretaries of Defense feel poorly supported by the OSD staff.
- Resistance to change, driven largely by denial about altered circumstances.
- Consequently, and of greatest concern, the inability to anticipate and prepare well to meet future challenges.

These symptoms evidence four underlying problems. First, the rigid functional structure of the Pentagon hampers collaboration, limits a focus on missions and results, demands more people and more management levels, resists new ideas, and sub-optimizes decisions. Each headquarters staff in the Pentagon—OSD, Joint Staff, service secretariats, and military headquarters staffs—are organized exclusively along functional lines, that is along the major areas of input activity, such as logistics, intelligence, and health affairs. Functional expertise is absolutely essential; it provides the building blocks for more advanced organizational approaches. Thirty years ago, businesses were also organized exclusively by functional components, what are more popularly called silos or stovepipes because of their rigid boundaries and non-collaborative cultures. Since then, corporations moved away from an exclusive dependence on functional structure because it was ill suited to the complexity and pace of the changing business environment. Instead, they now emphasize means for cross-boundary collaboration and teaming.

Unfortunately, the Department of Defense is still stuck with its antiquated structure. It is now, and has been for some time, experiencing the same performance shortfalls that businesses suffered. The Pentagon's outmoded vertical silos are unable to handle the complexity and pace of today's defense challenges. In futile efforts to make this functional structure work, the Pentagon has added personnel, management layers, and numerous ineffective cross-cutting committees. The additional people, layers, and unproductive committees have steadily increased the complexity of OSD's work.

A second fundamental problem involves processes, such as the Planning, Programming, Budget, and Execution System. Pentagon processes are sequential, stovepiped, consensus-driven, and industrial age. The Pentagon's bureaucratic culture and its functional orientation have shaped the design of these processes. In addition, because leaders put a premium on coordination and consensus, processes are slow,

and their products are watered down. The resulting outputs are more acceptable to the larger bureaucracy but at the expense of clarity and utility to senior leaders.

A third problem centers on weak civilian leadership traditions. OSD has given insufficient attention to leadership tasks and leadership development. The emphasis has been on technical and functional skills, not leadership skills. Many OSD officials in leadership positions are superb individual achievers (e.g., lawyers, diplomats, analysts) who have never led and been held accountable for larger organizational effectiveness. They are incredibly hard working and dedicated, but they have not been prepared for their demanding leadership responsibilities. This problem is also exacerbated by promotion criteria that favor technical and bureaucratic skills and by the failure to make leadership skills a priority in hiring decisions.

The fourth problem arises from the Pentagon's culture, which is too rule-oriented, bureaucratic, risk adverse in decision-making, and competitive among components. Although the Pentagon's culture is typical of most public-sector organizations, it is misaligned with what is required for effective performance in today's complex, fast-changing security environment. Culture—a below-the-surface but important element of organizational effectiveness—encompasses vision, values, norms, assumptions, beliefs, and habits and serves as the backbone of every organization. Of the importance of culture to organizational performance, Louis V. Gerstner Jr., former IBM Chairman and CEO, said, "I came to see, in my time at IBM, that culture isn't just one aspect of the game—it is the game." In noting "Culture eats strategy for breakfast," management guru Peter F. Drucker was observing that even an excellent strategy would not succeed if the organization's culture does not support it.

Among many causes of the Pentagon's cultural woes, foremost is a lack of shared values; it does not have agreement on vision, missions, or principles. Organizational and individual incentives and management styles and actions have reinforced the current culture. Excessive criticism of "failures," especially by Congress, has served to inhibit justified risk taking. Assumptions shaping Pentagon staff behaviors have never been explicitly examined. This must be a starting point for productive changes in culture. It should be noted that Pentagon culture is long-standing and entrenched and will not be easily changed. A determined and sustained effort will be required.

LONG HISTORY OF THESE PROBLEMS

Some of these four organizational problems were identified many years ago, and in fact understood at the time of the Goldwater-Nichols Act. In the mid-1980s, the Senate Armed Services Committee (where I was then working) worried about the lack of mission integration in the Pentagon's headquarters. A committee staff study observed, "Lost in the functional diffusion of the current DOD organization is a focus on the central strategic objectives and missions of DOD." The committee found much truth in an observation made by Drucker in 1974:

> The functional principle [of organizational design] ... has great clarity and high economy, and it makes it easy to understand one's own task. But even in small business it tends to direct vision away from results and toward efforts, to obscure the organization's goals, and to sub-optimize decisions. It has high stability but little adaptability. It perpetuates and develops technical and functional skills, that is, middle managers, but it resists new ideas and inhibits top-management development and vision.

To create a mission focus, the committee considered three options: mission-oriented under secretaries, mission-oriented assistant secretaries, and a mission-functional matrix organization. Unfortunately, the committee was unable to arrive at a viable solution to the lack of mission integration. Advanced organizational ideas, such as cross-functional teams, were not then known.

Toyota was the first corporation to decisively tackle the problems and inefficiencies of a functional structure. It did so in the mid-1980s, just as Goldwater-Nichols was being enacted. To design an automobile, Toyota augmented its functional structure by creating an empowered team of experts from each functional area. When this cross-functional team produced a superior design with 30 percent of the effort, the age of cross-functional teams was born. Because cross-functional teams provided such a competitive advantage, their use spread quickly in big business worldwide. Effectively employing cross-functional teams is not easily done. There are many challenges. Yet today, more than 50 percent of the work and most important work in big businesses are done in cross-functional teams that operate at all levels, from field operations to production lines to corporate headquarters.

In 1989, President George H.W. Bush appointed me to the position of Assistant Secretary of Defense for Special Operations and Low-Intensity Conflict ASD (SO/LIC). My experiences as ASD (SO/LIC) reinforced the Senate Armed Services Com-

mittee's observation about the lack of mission integration. Because I had worked in OSD for ten years beginning in 1968, I had previously experienced the intense competition among the Pentagon's functional silos. A report of the Blue Ribbon Defense Panel in 1970 captured this ongoing organizational characteristic well. It said, "Many of the difficulties result from the structure of the Department of Defense itself, which almost inevitably leads people to 'adversary' relationships rather than toward cooperation in the interests of the department—and the nation—as a whole." This great insight is as true today as in 1970.

In the Cohen-Nunn amendment, the Senate Armed Services Committee structured ASD (SO/LIC) to be a mission-oriented official. It assigned the assistant secretary the supervision of two mission areas—special operations and low-intensity conflict—including policy and resources. This mission responsibility brought my office into conflict with the OSD functional silos. They guarded their turf quite zealously. With few exceptions, efforts to collaborate with them were futile. Every issue and initiative resulted in exhausting, time-consuming, bureaucratic warfare. OSD was rampant with adversarial relationships, leading to a popular description of the office as a collection of feuding fiefdoms. ASD (SO/LIC) is confronting the same bureaucratic problems today.

The problems of functional silos did not go unnoticed in the Pentagon. In 1995, Secretary of Defense Bill Perry directed the use of Integrated Product Teams (cross-functional teams by another name) in defense acquisition. Perry argued that DOD "must move away from a pattern of hierarchical decision-making to a process where decisions are made across organizational structures by integrated product teams. It means we are breaking down institutional barriers." Unfortunately, Perry's mandate for multidisciplinary teamwork bore little fruit. It contained a fatal flaw: It permitted the heads of functional silos to carefully control their Integrated Product Team members. Moreover, it was narrowly limited to acquisition issues.

In 1997, several colleagues and I worked closely with Deputy Secretary of Defense John White on a study of OSD. As in the Senate Armed Services Committee's Staff Study, we found functional differentiation immediately below the Secretary and Deputy Secretary preventing collaboration on broader issues. But in this instance, we saw the crippling consequences firsthand. The Deputy Secretary was the first point of integration for missions and other priority outputs. The number, scope, and complexity of issues made this an impossible task. The Secretary and Deputy Secretary could only intervene on a small number of issues, served up by the bureaucracy as it laboriously churned through the endless compromises involved in various processes. My study colleagues and I found ourselves in complete agreement with a 1980 study of OSD by William K. Brehm, which observed, "Management activities are also strongly vertical and compartmentalized, with little horizontal integration and teamwork." In our own report, we noted:

> The Secretary, Deputy Secretary, and their immediate assistants too often find the support provided by OSD—despite staff dedication and hard work—inadequate to the needs of the two leaders. Criticisms of staff support and advice center on the narrowness of perspective, lack of integrated multi-functional advice, and excessive functional parochialism. OSD leaders often feel that few on the OSD staff share their perspective and can provide comprehensive advice on broad, complex issues.

In 2005 to 2006, Deputy Secretary Gordon England favored the creation of cross-functional teams for major missions. He had reached this conclusion as a result of organizational performance studies in support of the 2006 Quadrennial Defense Review (QDR). Research for these studies revealed that Joint Staff personnel participated in more than 860 cross-boundary groups, but only a handful performed well the small task of sharing information, let alone making decisions. The 2006 QDR report promised transformation represented by, among other things, "a shift from stove-piped vertical structures to more transparent and horizontally-integrated structures," but it failed to deliver this result. The department's leadership was unable to overcome the strong parochial opposition of the heads of the functional silos, and an effort to create meaningful cross-functional teams was again frustrated.

SECRETARY GATES'S EXPERIENCES

In his testimony before the committee last October and in his recent book, *A Passion for Leadership,* Secretary Robert Gates registered his frustration with the bureaucratic hierarchy, its lack of lateral communications, and its detrimental tendency to default to consensus decision-making. Gates observed that the only way he could get things done was to create special multidisciplinary task forces (equivalent to section 941's cross-functional teams):

> In every senior position I held, I made extensive use of task forces to develop options, recommendations, and specific plans for implementation. I relied on such *ad hoc* groups to effect change instead of using existing bureaucratic structures because asking the regular bureaucratic hierarchy (as opposed to individuals within it) if the organization needs to change consistently yields the same response: it almost never provides bold options or recommendations that do more than nibble at the status quo.

Secretary Gates used cross-cutting task forces "because so many different elements of the Pentagon were involved," and because they were, in his words, "immensely useful, indeed crucial." He said "They break down the bureaucratic barricades to change and . . . can also help build collaboration and relationships that will result in long-term benefits." He used the task forces to "accomplish . . . priority tasks associated with turning the wars around," including "the MRAP vehicles, additional intelligence, surveillance and reconnaissance capabilities, shortened medevac times, counter-IED equipment, and even the care of wounded warriors." He noted the task forces became "an essential instrument for me not just on matters relating to the wars but on other problems in the department as well."

Gates paid a lot of personal attention to the task forces, including the careful selection of their leaders. He also notes he had to delegate meaningful authority to the task forces. He said the task force leaders had to "provide the freedom for members to offer options and ideas, incorporate what is helpful, and then gently but firmly . . . guide the majority to the desired change, even if they come up with a different way of implementing it." Most notably, Gates said he discovered that it "routinely required my personal involvement to keep the bureaucracy from smothering their efforts." Finally, it is significant that in his testimony to the committee last October, Secretary Gates concluded that periodic intervention by task forces with the "intense, personal involvement of the Secretary" of Defense to override prevailing bureaucratic ethos was not, to use his word, "sustainable." He expressed regret that an institutionalized solution to this problem was not found before he departed the Pentagon.

SECTION 941—AN INSTITUTIONALIZED SOLUTION

Section 941 provides the institutionalized fix that Secretary Gates sought. Four of the five major elements of section 941 are tightly linked to the Pentagon's organizational problems identified by the committee. The fifth element is an overarching blueprint to guide the other four elements and all other required organizational changes. It requires the Secretary of Defense to formulate an organizational strategy for the Department of Defense. The Pentagon does not have an organizational strategy defining how the department needs to change in order to improve performance and prescribing a plan of action for achieving that critical transformation. A key element of the required strategy is the identification of the department's most important missions and other outputs.

It is worth considering the importance of organizational strategy. Too many Secretaries of Defense approach the job of running one of the world's largest bureaucracies as if it were unmanageable. In their limited tenures, they are faced with innumerable problems, many of which are exceedingly complex and some of which are urgent. Instead of taking responsibility for the overall performance of Pentagon headquarters, they decide, "I'll do what I can to help solve the most immediate and important problems." This is understandable. It also explains why manifest Pentagon inadequacies have been left unaddressed for so long.

If we are to have a better functioning Pentagon headquarters, it is imperative that the next Secretary approach the job intent on understanding why the Pentagon behaves as it does and determined to change those behaviors so that the organization can more routinely generate alternative, integrated solutions to complex problems and more routinely solve or at least manage complex security threats well. Only by translating this understanding and determination into an organizational strategy for improved performance will the next Secretary be able to communicate his or her common vision to the Pentagon's many functional elements and support staffs.

The second element of section 941 would require the Secretary of Defense to establish cross-functional teams to manage major missions and other priority outputs that are intrinsically cross-functional. This work would start with the Secretary of Defense identifying the missions, other high-priority outputs, and important activities for which "mission teams" and sub-teams would be established. The second step would be issuance by the Secretary of a directive on the role, authorities, reporting relationships, resourcing, manning, and operations of mission teams and specifying that mission teams are decision-making bodies. The third step would require estab-

lishment of three teams within six months of the Secretary's appointment and another three teams 90 days later.

These cross-functional mission teams must be the centerpiece of any plan for improving Pentagon performance. For decades, it has been recognized that the Pentagon's functional components war with each other to the detriment of the common enterprise. Cross-functional teams, which operate at all levels and in many guises, have overcome similar problems in private-sector organizations. The teams cull representation from diverse functional entities, are empowered and held accountable for real, measurable progress against an assigned mission. Although there are many nuances in precisely how these teams can and should function, there are a few well-established rules of the road. They cannot be merely "advisory," or they will tend to make recommendations that are popular rather than take action to actually solve the problem at hand. They must be protected from the functional bureaucracies or they will be hobbled and degenerate into consensus decision-making. However, successfully managed with the attention, authority, and active support of the Secretary of Defense, they would revolutionize decision-making in the Pentagon to the initial discomfort of some, but the lasting benefit of our servicemen and women and the entire nation.

The third element of section 941 would require actions to begin to shape an organizational culture that is collaborative, team-oriented, results-oriented, and innovative. These steps include preparation of a departmental directive on purpose, values, and principles for the operation of OSD. A second directive would specify the required collaborative behavior by OSD personnel. A third directive would describe the methods and means to achieve a high degree of collaboration between OSD and the Joint Staff. I have already explained why culture is so important and difficult to change. It requires a persistent leadership emphasis and proper incentives for the rank-and-file staff. Once in a while, it may also require replacing functional leaders who prove too hidebound to change for the greater good.

The fourth element would prescribe training and personnel incentives to support these new approaches. Among its prescriptions, this element would require completion of a course of instruction in leadership, modern organizational practice, collaboration, and the functioning of mission teams for Senate-confirmed officials in the Department of Defense. It would also require successful service as leader or member of a cross-functional team for promotion in the Senior Executive Service above a level specified by the Secretary. This element is really a corollary to the previous element and the imperative to transform the Pentagon culture over time.

The fifth element would require the Secretary of Defense to take appropriate action one year after the date of his or her appointment to simplify OSD's structure and processes. Almost all Secretaries and Deputy Secretaries of Defense and innumerable studies support cutting if not slashing the Pentagon staffs. What must be remembered is that it is largely the inability of the Pentagon to generate cross-functional assessments of problems and corresponding solutions that fuels the growth of bureaucracy. Each functional entity, aware that it needs more diverse information and expertise, but unable to collaborate with other functional organizations that have them, tries to build its own "in-house" supplementary bodies of functional experts. This is why so many regional offices have functional staff elements embedded in them, and vice versa. Once it is clearly established that empowered cross-functional mission teams will be responsible for cross-functional work under the close supervision of the department's top leadership, it should be much easier to identify the unnecessary and duplicative organizational structures and ineffective cross-cutting groups where staff can be cut without hurting the chances of mission success.

ISOLATED CASES OF CROSS-FUNCTIONAL SUCCESSES

A few critics of section 941 have argued that cross-functional teams may work for building a car or some other widget, but they won't work in the national security realm. This is demonstrably false. On occasion, the national security establishment has used cross-functional teams to good effect at all levels and diverse missions. At the strategic level, President Dwight D. Eisenhower employed cross-functional teams in Project Solarium, the highly acclaimed effort that formulated a grand strategy for his administration. President Eisenhower was personally involved in conceiving the small, seven-person, cross-functional teams, which had representatives from multiple department and agencies and unrestricted access to information throughout the government. He identified their leaders and members, and once the teams generated their output, Eisenhower personally reviewed the results with the entire top echelon of his national security leaders. In retrospect, Project Solarium has been a widely admired and much commented upon cross-functional model for grand strategy decision-making. Unfortunately, it is not a frequently repeated exer-

cise because it made the leaders of the functional departments and agencies distinctly uncomfortable, something Eisenhower well understood and embraced as necessary for getting worthy results.

Another example of a strategic-level cross-functional team that generated incredible results is the Reagan Administration's team that countered Soviet disinformation. Today, one frequently hears that it is just too difficult to counter terrorist propaganda effectively. Many held the same view of Soviet disinformation in the 1970s and 1980s. However, a small cross-functional team with representatives from the CIA, DIA, FBI, NSC, Department of State, INR, and USIA produced reports, briefings, and press releases that exposed Soviet disinformation at little cost to the United States, but negated much of the multi-billion-dollar Soviet disinformation effort. I penned a foreword to a National Defense University study that lays out in exquisite detail just how effective this group was:

> The group successfully established and executed United States policy on responding to Soviet disinformation. It exposed some Soviet covert operations and raised the political cost of others by sensitizing foreign and domestic audiences to how they were being duped. The group's work encouraged allies and made the Soviet Union pay a price for disinformation that reverberated all the way to the top of the Soviet political apparatus. It . . . changed the way the United States and Soviet Union viewed disinformation. With constant prodding from the group, the majority position in the United States national security bureaucracy moved from believing that Soviet disinformation was inconsequential to believing it was deleterious to United States interests—and on occasion could mean the difference in which side prevailed in closely contested foreign policy issues. The working group pursued a sustained campaign to expose Soviet disinformation and helped convince Mikhail Gorbachev that such operations against the United States were counterproductive.

Like Project Solarium, this interagency team worked its issues virtually non-stop with incredible dedication from its small group of experts. However, in terms of budget outlays, the group cost the United States almost nothing, demonstrating the amazing efficiency of collaboration when it is made to work well.

At the operational level, Joint Interagency Task Force (JIATF)—South is viewed as the gold standard for interagency collaboration and intelligence fusion. For over twenty years, the cross-functional leadership team at JIATF–South has been remarkably effective at meeting the demanding operational challenge of keeping pace with resource-rich and creative drug organizations. Year in, year out, their organization is responsible for 70–80 percent of all U.S. federal, state, and local law enforcement disruptions of cocaine shipments to the United States. By one recent count the organization successfully integrated the efforts of the four branches of the military, nine different agencies, and eleven partner nations, defying experts who claim such levels of collaboration are not possible among executive departments and certainly not on an international basis.

Another cross-functional success at the operational level, albeit of much narrower scope than JIATF–South's enterprise, is the task forces orchestrated by Under Secretary of Defense Walter Slocombe in the Clinton administration during 1994–2001. The failure in Somalia in 1993 and national embarrassment of the USS *Harlan County* being turned away from a Haitian port shortly thereafter were both largely the result of feuding between the Departments of State and Defense and the inability of the Pentagon to keep pace with events in the field and coordinate a common Pentagon approach to managing these operations. When Under Secretary Slocombe took office, he established small cross-functional task forces to handle such complex contingencies and used them to good effect for the rest of the 1990s. These task forces were not as empowered or as cross-functional in representation as JIATF–South, but they worked their diverse issues full-time and with the benefit of multiple experts drawn from around the Pentagon. They managed interagency frictions better and helped the department keep abreast of fast-moving and complex developments in Haiti and the Balkans among other places.

In terms of field activities, a well-known example of a cross-functional team is the Civil Operations and Revolutionary Development Support (CORDS) program in Vietnam. This pacification effort successfully integrated military and civilian components of the U.S. Government that previously had worked at cross-purposes. The program is now widely acknowledged as a major step forward, although it was, in the words of its dynamic and uncompromising first leader, Ambassador Robert W. Komer, "too little, too late." It is not surprising in the least that it took a leader of Ambassador Komer's organizational acumen to decode and demonstrate the kind

of field-level interagency collaboration that was required to defeat the category of multi-functional security threat we now widely refer to as a "hybrid threat."

A much more current example of effective field-level cross-functional collaboration is the High-Value Terrorist Targeting Teams in Iraq, led by General Stanley McChrystal. We have the great good fortune and privilege to hear from General McChrystal during this hearing. Suffice it to say that his exquisite example of the power of cross-boundary collaboration did not just involve interagency teams in the field. General McChrystal worked his collaborative approach at the highest echelons of the U.S. Government and inside the Pentagon to ensure his field teams received the support they needed from the larger national security bureaucracy.

Unfortunately, these successes are as rare as they are impressive. Empowered, cross-boundary collaboration can be made to work at all levels and for a wide variety of cross-functional problems and missions. What we need to do is make them more the norm than the rare exception, and that requires institutionalizing a mechanism for senior leaders to employ.

ADMINISTRATION'S CONCERNS WITH SECTION 941

As I mentioned at the outset, the Pentagon has not yet endorsed the opportunity afforded by section 941. To date, the administration alleges that this provision is overly prescriptive and would undermine the authority of the Secretary, add bureaucracy, and confuse lines of responsibility. These concerns are entirely misplaced and suggest a lack of understanding of collaboration and teaming concepts or a lack of understanding of the intent of section 941. If section 941's prescriptions were faithfully implemented, they would empower the Secretary, streamline bureaucracy, and clarify responsibility for cross-functional integration. Let me address one-by-one the administration's concerns.

Does section 941 undermine or empower the Secretary? Section 941 explicitly guards against lowest-common-denominator consensus-seeking by giving the Secretary the wherewithal to ensure cross-cutting groups are unconstrained by the need to safeguard the equities of group members' organizations. The teams report to the Secretary and derive all their authority from the Secretary, who choses their missions, approves their charters, and specifies the scope of their authority. The Secretary can approve, reject, or modify team decisions, but if the teams are established as section 941 specifies, they certainly will not produce the kind of meaningless consensus outputs that former Secretary Gates warns against: outcomes where "everyone agrees to say collectively what no one believes individually."

Does section 941 add or roll back bureaucracy? Teams that would be established under section 941 would be empowered to cut through the existing bureaucratic processes that protect functional equities at the expense of accomplishing cross-cutting missions efficiently and effectively. Section 941 would empower teams to overcome the currently time-consuming and energy-sapping consensus-building processes that exhaust so much human capital for so little effect. Consensus processes enervate not just the rank and file but senior leaders as well, including the Secretary. Secretary Gates said in his book, *A Passion for Leadership:*

> I cannot begin to calculate the time I have wasted in meetings—and task forces—as the person in the chair strives to get all participants to agree to a single recommendation or point of view, instead of presenting several options to their higher-up. This process inevitably yields the lowest common denominator, the most bland of initiatives, which everyone can agree to. Pap. A leader who seeks true reform will never get bold ideas or recommendations from task forces or working groups if consensus is the priority objective.

Section 941 would obviate the need for activities that masquerade as horizontal integration but in reality waste precious time and expensive human capital.

Finally, section 941 would require the Secretary of Defense to take action "as the Secretary considers appropriate" to "streamline the organizational structure and processes of the Office of the Secretary of Defense." Thus section 941 actually requires a reduction of bureaucracy, but does so after the empowered cross-functional teams are working effectively and producing results not obtainable from consensus-driven committees. At that juncture, it would be easier for the Secretary to determine where the staff can best be reduced.

Does section 941 clarify or confuse lines of responsibility? The Administration expresses concern that section 941 "would give directive authority over other elements of the Department and authorize them to requisition personnel and resources from other parts of the Department without regard to competing mission requirements." The "without regard" to competing requirements is not true. Section 941 has a spe-

cific provision that allows the head of a functional component to appeal to the Secretary to review and modify decisions made by one of the Secretary's cross-functional teams. However, the administration's concern demonstrates that the bureaucracy correctly understands that section 941 teams would be truly empowered to pursue missions, unlike the existing consensus-based committees. Rather than being concerned that the section 941 teams would confuse lines of responsibility, the Pentagon bureaucracy is actually worried about the explicit responsibility and accountability section 941 confers upon the Secretary's mission teams. These teams would break the functional silos monopoly on advising and acting on behalf of the Secretary and Deputy Secretary.

Section 941 specifies that the Secretary "shall delegate to the team such decision-making authority as the Secretary considers appropriate in order to permit the team to execute the strategy;" that within that delegated authority, "the leader of a mission team shall have authority to draw upon the resources of the functional components of the Department and make decisions affecting such functional components;" and that "the leaders of functional components may not interfere in the activities of the mission team." That language clarifies rather than confuses responsibility. The efficacy of such teams was demonstrated by Secretary Gates, who created multiple cross-cutting organizations to deal with vital issues that the Pentagon bureaucracy could not solve, including care for wounded warriors and priority warfighting acquisition programs. These groups functioned as genuine cross-functional teams and produced positive outcomes for the Secretary unconstrained by the functional hierarchy. They had clear authority to accomplish their missions and did not "confuse the lines of authority" for Secretary Gates.

Does section 941 represent congressional micromanagement or legitimate use of congressional powers? Once it is clear that section 941 actually empowers the Secretary, rolls back bureaucracy, and clarifies who will work cross-functional problems for the Secretary, it is not hard to challenge two more general criticisms aimed at section 941. Asserting section 941 is overly prescriptive supports the administration's broader charge that the current National Defense Authorization Act "micromanages" DOD. Once it is clear that section 941 is not overly prescriptive, but instead provides the Secretary with a tool he controls and directs at his discretion, the micromanagement allegation withers. Congress is simply asking the Secretary to use 21st century organizational practices well established in the private sector whose efficacy is strongly substantiated by research literature.

Can Secretaries of Defense achieve section 941's objectives without a legislative mandate? Thirty years of evidence argue convincingly they cannot. Even Secretary Gates, one of the most skillful secretaries, proved unable to engineer an institutional solution for the Pentagon bureaucracy's tendency to produce least-common-denominator consensus positions. Even so, both critics who level the micromanagement charge and supporters, like Secretary Gates, of empowered cross-cutting mechanisms often wonder whether the use and management of cross-functional teams ought to be left entirely to the discretion of the Secretary of Defense. They sometimes add, correctly, that the teams cannot succeed without strong support and careful oversight from the Secretary anyway.

However, this point just underscores the importance of strengthening the Secretary's ability to use cross-functional teams. Few Secretaries understand the importance of cross-functional teams, much less how to create and manage them well. Secretary Gates stressed the critical importance of such groups, but otherwise, senior Pentagon leaders have largely overlooked their potential.

Legislating the use of cross-functional teams would ensure the department pays close attention to their potential. It would also reinforce the legitimacy of the teams and increase the willingness of career civil servants to support them. Perhaps most importantly, resistance to their use by functional leaders would diminish, giving the teams a much better chance to succeed. In short, there is no need for a trade-off between great leaders and great organizations. We need great leaders and modern structures, healthy cultures, and other organizational practices and attributes conducive to high-performance. Section 941 gives the next Secretary a necessary tool for running a 21st century Pentagon, and if he or she are determined to make the most of it, so much the better.

OVERALL ASSESSMENT OF SECTION 941

Organizations normally cannot reform themselves. Businesses typically have to look to outside consulting firms to help overcome internal inertia and denial. The Pentagon has repeatedly demonstrated its inability to undertake organizational change even when evidence of the need for change is compelling. It opposed the two largest transformations in the last 70 years: the Goldwater-Nichols Act and creation

of U.S. Special Operations Command. It is now opposing the Senate's encouragement to take teaming and collaboration seriously. Perry, White, England, and Gates discovered they could occasionally override bureaucratic norms, but they could not reform the institution for lasting improvements in performance.

Given the Pentagon's long-standing inability to correct its organizational defects, Congress would be fully justified—even obligated, just as it was in the Goldwater-Nichols Act—to use its Constitutional powers "to make rules for the government and regulation of the land and naval forces." Congress has a right to demand that the Department of Defense adopt 21st century organizational practices—that it have an organizational strategy; that it employ cross-functional teams for cross-functional missions and work; that it have an organizational culture aligned with operating requirements; that it provide proper training and incentives; and that it employ simplified structures and processes.

Section 941 contains the right ideas to launch the Pentagon on the use of cross-boundary collaboration. It provides better and faster ways of integrating expertise and making decisions that are imperative in today's complex, fast-paced security environment.

Section 941 finds the right balance between congressional mandate and freedom of action for the Secretary of Defense. It does not prescribe matters better left to the Secretary. The Secretary would determine (1) DOD's organizational strategy; (2) the missions and other priority outcomes to be addressed by cross-functional teams; (3) the role, authorities, reporting relationships, resourcing, manning, and operation of the teams; (4) when teams are established and who will lead them; (5) the charter and strategy of the teams; (6) how OSD would operate, would build a more collaborative culture, and would train and incentivize its personnel; and finally, (7) how OSD would be streamlined in the future. Section 941 gives the Secretary a tool to use at his or her discretion and provides legitimacy for its use in the face of certain bureaucratic resistance.

CONCLUSION

I congratulate the committee on this historic initiative. This is precisely the sort of well-researched, well-grounded, empirically-justified intervention by Congress that is needed from time-to-time, and in due time, it will be widely admired for its impact.

I urge the committee to remain steadfast in enacting this provision. Safeguarding national security must become a more collaborative enterprise. New Pentagon leaders would be wise to embrace and use to good effect the tools provided by section 941. Cross-boundary collaboration should then spread throughout the Department of Defense and into the interagency, where it is desperately needed.

Once enacted, the two Armed Services Committees will need to carefully oversee the implementation of section 941, just like they did the Goldwater-Nichols Act. In this regard, the Senate Armed Services Committee should refuse to confirm presidential appointees who do not show a deep knowledge of collaboration and cross-functional teams and a commitment to their effective use.

The Goldwater-Nichols Act, profoundly shaped by this committee, has served the nation well. It is time now to enlarge upon that historic success by expanding cross-functional collaboration to the Pentagon headquarters, where strategy, plans, operational support, and acquisition decisions for U.S. forces are made. Our servicemen and women need and will benefit from a Pentagon headquarters capable of making the best possible decisions and risk tradeoffs while keeping pace with the complexity and turbulence of 21st century security threats. They currently do not have such a Pentagon.

In section 941, the committee mandates the use of exactly the type of decision-making mechanism the Pentagon needs to overcome its institutional shortcomings and better execute its missions. The transformational changes envisioned in section 941 would require inspired and committed leadership by senior Pentagon officials and vigorous oversight by Congress. However, once instituted, pursued, and perfected, the use of cross-functional teams can have a positive impact every bit as great as the original Goldwater-Nichols legislation. In good time, the benefits of section 941 will be abundantly manifest, just as the benefits of empowered joint warfighting commanders are now clear. All the committee has to do to take another historic step forward is stay undeterred on its current course. I encourage you to do so, and thank you for your visionary leadership on this critical issue.

Chairman MCCAIN. Thank you very much, Jim, and thank you for your many years of service.

Dr. Edmondson, listening to your testimony reminds me of several visits I've met—I've made to Silicon Valley and other high-tech organizations, where they're basically working in open spaces. No longer are there cubicles separating, but they're all out there in the open, which provides, then, for the environment, really, of a collaborative effort. Have you ever seen any office in the Pentagon that looked like that?

Dr. EDMONDSON. No. I don't want to imply that it's architecture. I think it's mindset more than architecture.

Chairman MCCAIN. Yeah.

Dr. EDMONDSON. Structure and leadership.

Chairman MCCAIN. Right.

Dr. EDMONDSON. And——

Chairman MCCAIN. But, doesn't the architecture somehow provide the atmospherics?

Dr. EDMONDSON. It can. It can. It's important, and this is, of course, a detail. But, it's important to get the acoustics right. I know people working in these office—and I've studied some of these open offices, where people are going crazy. Then there are others where the acoustics are so well designed that, in fact, they say it's fantastic. They can do their own thinking, they can do their own work, but they just poke their heads up and they see someone over here they need to coordinate with on some complex time-dependent issue, and off they go. So, it certainly can work. Architecture can shape the mindset, shape the behavior, and it, too, is not a panacea.

Chairman MCCAIN. But, the mindset shapes the architecture.

Dr. EDMONDSON. You bet. Absolutely.

Chairman MCCAIN. General, one of the famous stories, of course, is the story of the MRAP [Mine-Resistant Ambush Protected Vehicle], where Secretary Gates talks about—he had to personally take charge—once-a-week meetings. In other words, the issue was of the transcendent importance, saving the lives of our men and women in the military who were so vulnerable to IEDs [improvised explosive devices]. But, obviously, as he stated before this committee, you can't do that with everything that comes along. It's just a physical impossibility, and we also have had Secretary Panetta, who feels, basically, of the same mindset, and Secretary Hagel.

Now we're getting this reaction from the Pentagon as if it were the end of Western civilization as we know it. There are smart and good people over there. There are people who understand that the system is not working. We had a hearing on the F–35. The first time the F–35 was recommended was 2002, and it's still not operationally capable. I mean—and yet, I have to get one of these every 18 months, and then 18 months—I understand it, then I have to—anyway. That's a personal issue.

But, the—why is it? Why is it that we are getting this near-hysterical response to what former Secretaries of Defense, leaders such as yourself—I've not met a leader with your background and experience that doesn't say that this kind of change has to take place. It—help me out.

General MCCHRYSTAL. It does have to take place, Mr. Chairman. I think you're exactly right.

I think that——

Chairman MCCAIN. Why the—why such a visceral, emotional reaction?

General MCCHRYSTAL. I think all big organizations, people get set into their equities at different levels in the organization. They get used to things. They learn the rules, and when you start to——

Chairman MCCAIN. But, haven't they learned—yeah, I'm not—don't mean to interrupt, but every time there's a crisis, we have a Joint Task Force, right?

General MCCHRYSTAL. That's correct. Every time that I can think of, you have a very complex, difficult problem, you form some form of a cross-functional team, you put them in, typically, open architecture. You work the problem, and then, interestingly enough, once the problem is solved, we sort of go, "Whew, glad that's over," and then we go back to our offices. I think the new normal is, we're living in that complex world, so I'm—that's why I'm so supportive of 941.

Chairman MCCAIN. Well, let me ask one more question, then, that is not directly related to this particular issue. You were commander of the only organization that literally transcends and crosses geographic boundaries. Do you think we ought to be looking at the entire COCOM [Combatant Command] structure, given the nature of the challenges we face today?

General MCCHRYSTAL. I would argue, I—and I haven't studied that and given it deep thought—I would argue, everything ought to be looked at on a constant basis. Anything that was locked into rules ought to be considered movable.

Chairman MCCAIN. We have a—for example, we have a NORTHCOM [United States Northern Command] and a SOUTHCOM [United States Southern Command], with the boundary line being the Guatemala/Mexico border. Does that make any sense?

General MCCHRYSTAL. Mr. Chairman, I'm not prepared to really opine on that today. I would say, though, I'd—all things like that have got to be looked at, organizationally and culturally, just constantly.

Chairman MCCAIN. The decisionmaking process—let me just give you an example. You know, we know the issue of force levels in Afghanistan is one that has to be decided between what has already been announced, beginning next year, would be a reduction from 9,800 to, basically, a very small force at two bases. Yet, there is no decision. Senator Reed and I have written to the Secretary of Defense, asking for a decision. Are we harming our ability and our relationship with our allies by delaying a fundamental question like that? Does that have any relation to the bureaucracy?

General MCCHRYSTAL. I think it probably has a relationship to the bureaucracy, but I also think it just—it brings uncertainty. Markets don't like uncertainty. Diplomacy doesn't like uncertainty. Security doesn't like uncertainty. So, I think the more we can make that transparent and less uncertain to people, I think, the better response we'll get from our allies and our enemies.

Chairman MCCAIN. Senator Reed.

Senator REED. Well, thank you very much, Mr. Chairman.

Thank you all for very insightful, excellent testimony. Thank you.

Just to clarify this—I think you've made the point, but—Dr. Edmondson—that one of the pushbacks we get is, "Well, we do this all the time anyway. We have crosscutting teams here, there, and everywhere." But, there's a difference between the cross-functional teams that we're talking about and working groups that share information, seek consensus, and never seem to get either. Is that—I mean, is that your impression?

Dr. EDMONDSON. There is a universe of difference. Right? So, it's—a team—a cross-—an effective cross-functional team is not simply a group of people from different units or functions. It's a group of people from different units or functions who are charged with a clear directive, a clear, meaningful directive on behalf of the organization. Specific deliverables that they, of course, have a very important role in defining at the level of detail, and a timeframe, and resources, and support, and empowerment. Right? So, they are given the license to get things done. That doesn't mean they're going to go rogue. Right? They still are under the directive of senior leadership, and they know they are, and they are, doing meaningful work on behalf of the organization that has to get done in a timely way.

Senator REED. One of the aspects of section 941 that Mr. Locher referred to is a training component, too, and a preparation component. We have a—this can't be launched immediately. There has to be a—you know, one, an identification of the appropriate individuals in the appropriate organizations, the training of how to do this. That's all part of this process, the foundation, if you will. Is that correct?

Mr. LOCHER. Senator Reed, it is. I should say that the training part is quite important. Even in business, creating effective cross-functional teams is difficult. The training is important. Both of the team members, they need to be trained in the functioning of a team, conflict resolution approaches. But, their supervisors have to be trained, as well. They need to create that safety net for those team members to go off. They don't have to be accountable to the ideology of their functional area; they're designed to solve the problem of the mission team. So, those supervisors need to be trained, as well.

As I mentioned, there's—has not been enough attention, in the Pentagon, to leadership, so we're talking about leadership training, some training on modern organizational practice, and on collaboration, as well as cross-functional teams.

Senator REED. One of the other aspects, I think, of making this work goes to the reward structure. On—General McChrystal, I think you've been in the—in this atmosphere for a long time, but that—my impression now is that, when they put together these teams of different organizations, the reward is back home. It's either in the Army or SOCOM [United States Special Operations Command] or the Navy or the Marine Corps, et cetera. You're there protecting that—you know, that ethic, because that's where you'll get your——

So, how do we work this reward structure, basically, in terms of these joint teams, so that you get the proper commendation and the proper whatever?

General MCCHRYSTAL. I think if you use Goldwater-Nichols as one example of where we adjusted a—reward structures, and it had a very significant cultural effect—I think the same thing needs to happen here, because there's still a tendency to keep your talent close to home and reward it because they're around. As a consequence, I think what we need to do is, first, reward participation on cross-functional teams, maybe make it required, like joint duty, but also seek a way in our evaluation systems, efficiency report systems, to measure who makes a difference in the effectiveness of a cross-functional team. When we work with civilian companies, it's always this tension between individual incentives, "Did I make my number?"

Senator REED. Right.

General MCCHRYSTAL. Or, "Does the organization do better because I helped the organization do better?" It's challenging to measure, but it's possible. Those people who the team scores more goals when they're on the ice are the kinds of people that we need to recognize and help grow. It's got to do with leadership training, and it's got to be support of those cross-functional teams.

Senator REED. Just a final point, and I—it echos what the Chairman said and what many have said. I have, you know, a feeling that we have to do this, because the other guys are doing it. My impression—again, your leadership in Iraq was superb, but one of the reasons why your opponents had to be horizontal is because we had every tool in the book to take out a hierarchical structure. We just couldn't find it for a while, and then you started getting horizontal, also. Then, of course, the communications revolution has made all this much more feasible.

I'm looking, though, across the globe, in places like Russia. They seem to be much more adaptive of this horizontal, cross-functional intelligence offices, tactical offices, political offices, et cetera. Is that your impression, General? Because in——

General MCCHRYSTAL. Sir, it is. The person that had the biggest effect on changing Joint Special Operations Command was a guy named Abu Musab al-Zarqawi.

Senator REED. Yeah.

General MCCHRYSTAL. Because he put us in a position against a challenge that we couldn't deal with without changing. So, it wasn't an optional thing we did.

I think what we see with our opponents is, nobody is going to take on a disproportionately powerful organization like the United States where we are best. They are, by definition, going to go against asymmetrical areas, and they're going to constantly adapt. Because you no longer have to be a nation-state to challenge us anymore, you can be as small as—a very small group, because of technology—they can all be trying from different angles. The vast majority can fail, but some will continue to adapt to a Darwinistic process, and so, the big mechanical beast cannot, almost by definition—it'll be like Gulliver and the Lilliputians—we'll just be tied down by people who figure parts of it out.

Senator REED. Well, I appreciate that, as a Lilliputian. So, thank you.

[Laughter.]

Chairman MCCAIN. Senator Inhofe.

Senator INHOFE. Let's ease off the intellectual plane of cross-functional teams and cultural obstacles just for a moment here, and let me ask two questions. It's based on something everyone does agree with right now. One is the threat that we're facing.

Mr. Locher, last November you said—and this is your quote—you said, "The world in which the DOD must operate has changed dramatically over the last 30 years. Threats and opportunities are more numerous, more varied, more complex, and more rapidly changing."

Then we had four professors before this committee, and the professors talked about the challenges and they—United States national security, and were in agreement that the threats against the United States and its interests are unlike any time in history. Heard the same thing from John Brennan, heard the same thing from James Clapper. You know, I think that people realize we are in that threatened of a position.

Now, the question I would ask—because Secretary Gates was here, and he talked about the funding. I mean, he said that we're now spending one-third of the percentage on defense, of our total budget, that we did in 1964. He said—which is kind of counter to what we're talking about here—he said, quote, "Without proper and predictable funding, no amount of reform or clever reorganization will provide America with a military capable of accomplishing the missions it's assigned to."

So, it's—first of all, do the three of you think that we're not spending enough, to start with?

Mr. Locher?

Mr. LOCHER. Senator, this is not my area of expertise at the current time. I cannot—I've not analyzed the defense budget.

Senator INHOFE. Okay.

General McChrystal?

General MCCHRYSTAL. I'm pretty much the same place, Senator.

Senator INHOFE. Well, but, you know, in—Dr. Edmondson, I know you'll—probably the same thing. But, this is what Secretary Gates said. He said a lot of reorganization, all these things that we're—unless you're spending enough money on defense, is—they're not going to work. Do you agree or disagree with his statement? This is Secretary Gates.

Mr. LOCHER. What I might be able to add to the question that you're asking is, we can spend more and more money, but if we don't have an organization that can effectively employ the resources that are available to us, much of that spending will be wasted. I think that's a point at which we are today. I would give more emphasis to these organizational changes than Secretary Gates did.

Senator INHOFE. Yeah.

Mr. LOCHER. You know, we have a huge bureaucracy that's working as hard as it possibly can, but it is in Industrial Age functional stovepipes——

Senator INHOFE. Okay, but—time is passing here. Let me just do this, and, Dr. Edmondson, perhaps—kind of take the statement that was made by Secretary Gates, and just say, for the record—send it to us after this is over—what you're thinking about. All right? Whether you agree with that, or not?

[The information referred to follows:]

Mr. LOCHER. I am unable to make an informed judgment on the adequacy of the current budget levels for the Department of Defense. From my current position, it is not possible to assess the best, integrated options for solving our most pressing security problems and their associated resource requirements. DOD is currently not performing well in some key mission areas, and the Pentagon wastes too much of its resources on poorly managed programs and missions for reasons identified in my previous answers. One great disadvantage of current organizational problems is that it makes it difficult to ask the American people to fund a greater security effort. However, if DOD had a modern organization that pursued missions efficiently and greatly reduced waste, making the case for greater resources would be easier. In short, we should not be forced to choose between allocating resources to a poorly performing organization or improving the organization but starving it of needed resources. The United States needs a high-performing Pentagon headquarters capable of integrated, timely, innovative, and forward-looking decision-making and sufficient levels of resources to protect the nation's security.

Dr. EDMONDSON. I have no basis from which to draw to make an assessment as to whether the Department of Defense's budget or spending are sufficient. However, my expertise does allow me to claim that well-designed, well-led cross functional teams typically prove efficient structures, which help ensure that available funds are well-spent.

Senator INHOFE. I think it's really significant, because that's exactly what we're talking about doing right now. He's saying it doesn't make any difference, because, unless we're spending more, more resources is not going to work.

The other thing where everyone agrees, and that is, we're too heavy at the top. The OSD military and civilian staff increased 20 percent from 2001 to 2013. Military and civilian staff at Army Headquarters increased 60 percent over that same period. From 2001 to 2012, the defense civilian workforce grew 5 times the rate of the Active Duty military.

Now, in—to address this, Deputy Secretary of Defense Robert Work sent all services a memo entitled "Cost Reduction Targets for Major Headquarters," ordering preparation for a 25-percent cut in appropriations from 2017—that's next year—to 2020, for all major defense headquarters. This is what we used to call "the meat ax approach." Frankly, I kind of like it. What do you all think about it?

General MCCHRYSTAL. Senator, I think it's sometimes necessary, but I think you've got to make the changes. You don't know how head—how big your headquarters need to be until you get them operating——

Senator INHOFE. In——

General MCCHRYSTAL.—the correct way.

Senator INHOFE. Okay. You're all convinced that, by making these changes, that we're going to be able to do that. The result is going to be less at the top, more Active military. Is that—do you all agree with that?

General MCCHRYSTAL. I'm not sure those decisions are being made, but I can tell you it will enable the opportunity to make better decisions in that.

Senator INHOFE. Yeah.

Any comment?

Dr. EDMONDSON. Senator, I would have to agree with that. It is—what we're talking about here is the use—the best use of the human resources that the Department has. The experience of working in these kinds of cross-functional purpose-focused teams is one

that not only gets the job done, generally with fewer resources than in prior approaches, but also that develops the people into far more capable and—people with a greater perspective on the whole system. So, it's a kind of free education for the people actually doing this important work——

Senator INHOFE. Okay. Well, I appreciate that, and you will follow through with sending the——

Dr. EDMONDSON. I can certainly opine in a general sense——

Senator INHOFE. Very good.

Dr. EDMONDSON.—that money is not the answer, in general.

Senator INHOFE. Thank you.

Dr. EDMONDSON. You bet.

Senator INHOFE. Thank you, Mr. Chairman.

Chairman MCCAIN. But, when you don't have enough money for our pilots to fly—they're now flying less than Russian pilots and Chinese pilots, and they're robbing aircraft to—for other aircraft to fly, which are facts, then money does matter, at some point. Right now, readiness and training are the ones that—aspects of our military that are suffering the most. I think that General McChrystal would amply testify, when we stop training people and making them ready, then you put them in greater danger. That's what our military leadership has testified.

Senator Manchin.

Senator MANCHIN. Thank you, Mr. Chairman.

Thank all of you for your statements this morning.

This is to the entire panel, but recently—I think you all have heard about the horrific flooding we've had in West Virginia, devastating as it's been to our State. The joint interagency responses include the U.S. Army Corps of Engineers, FEMA [Federal Emergency Management Agency], and National Guard. They're all responding as we speak. During previous natural disasters, such as Hurricane Katrina, much criticism was directed to how the agencies coordinated among themselves, or didn't coordinate among themselves, especially with regard to the command-control use of DOD and State National Guard assets. Your statements focused on DOD utilization of cross-functional teams.

So, I guess I could ask how these teams take the next step and improve the emergency management planning and coordination between DOD and other Federal agencies. We're having that lack of coordination right now going on, and everyone's intentions are good, but, for some reason, we just can't get our act together to where we have a clear direction of who's in charge, of how the assets will be disbursed, and how we can help people in the greatest need. So, whoever wants to respond to that, and then——

Mr. LOCHER. Senator, if I might. I spent 6 years studying the national security system of the United States, the interagency system. These cross-functional teams are required at the national security level, as well, and there's actually a hope that, if these teams are instituted in the Department of Defense—section 941 only requires the Secretary to create six teams. But what——

Senator MANCHIN. DOD and FEMA is already cross-functional?

Mr. LOCHER. No, no. I'm saying—this is just inside the Department of Defense, but I'm saying that, at the next level up, at the interagency level, we need the same sorts of cross-functional teams

to be created, across the departments and agencies, pulling them together so that they can be effective, that we can do effective planning and we can do effective execution. We do not have that today. The only way we can integrate that is at the National Security Council. So, there is a requirement for something very similar to these cross-functional teams at the next level up.

Senator MANCHIN. The only thing I can say—you know, the DOD and FEMA establish a permanent cross-functional team is something that you would recommend? Because right now we don't have that. If we have FEMA coming in, FEMA's coming in, who we're looking for, for support. Then we have all of our National Guard out. We're looking for our Federal assistance, and no one seems to be able to, basically, pull the trigger and get things done quickly as they need done.

Mr. LOCHER. Senator, every issue that we handle in the national security arena requires more than one department, and so, you have to work it across—and many times, we need seven or eight departments working together. You're talking about the Department of Defense and FEMA, but there are lots of other players——

Senator MANCHIN. Sure.

Mr. LOCHER.—there, as well, that could be brought together in an effective teaming approach, and so, I'm hopeful that, once the committee is successful in section 941, this will spread and move up to the national security level, where it is desperately needed.

Senator MANCHIN. General, if you—on another—I'm a firm believer in fixed-price—fixed-price contracting, I think, as our Chairman is, also, and the concept that services should state what they are looking for in buying a weapon system, and then pay us that price. Basically, knowing what you need and what you want, and making sure that the price reflects that. Can you provide an example to how utilization of cross-functional teams has improved contracting? Do you think that use of cross-functional teams would improve the development of weapon systems acquisition requirements and lead to less use of cost-plus contracting?

General MCCHRYSTAL. I'm not an expert in acquisition, but I will give you my personal experiences and my beliefs.

The first is, the acquisition process, where you have to identify your requirements many, many years out, and nail those down, doesn't reflect the march of technology anymore. It is not what civilian corporations are doing. They have to be much more flexible and adaptable. Which means, in my view, you have to form cross-functional teams that are not just the users of the end piece of equipment, but also those scientists who create it, all the different people who can help produce that, because it's going to be an iterative process that's going to change tremendously from the time someone came up with the idea.

Senator MANCHIN. Dr. Edmondson, just finally, Six Sigma was a big—you know, it's been bantered around for quite some time. Do you find that morphing into this cross-functional? Is it part of it?

Dr. EDMONDSON. Not exactly, Senator. Six Sigma applies well to work that is extremely well understood and highly routine, because it allows us to get sufficient data to know exactly how something should be done repeatedly and effectively and efficiently every single time. We're look—Six Sigma is essentially an extraordinarily

low error rate, a one-in-a-million error rate. That's not the case for the kinds of work we're talking about here, that's fast-paced, unpredictable, innovating on the fly, and so forth. So, cross-functional teams are not the perfect tool for Six Sigma-like work activities.

Senator MANCHIN. The——

Dr. EDMONDSON. They are a good tool—excuse me—for innovation and responding to unprecedented issues and challenges.

Senator MANCHIN. I guess I would just ask, in followup—I'm so sorry——

Dr. EDMONDSON. Yeah.

Senator MANCHIN.—Mr. Chairman—but cross-functional—why are we having such a hard time for the cross-functional to really grab hold and do what it's supposed to do?

Dr. EDMONDSON. Now, that is one of the puzzles for the ages. I suppose that the best answer is that organizations do resist change. Organizations—and General McChrystal did talk about this—there's a comfort level in what I know, what I know well——

Senator MANCHIN. Everybody's fighting back and hunkering down, covering their own, right?

Dr. EDMONDSON. We need to learn to change. I think critical—the critical issues, the critical competencies that organizations today have is the competency to keep learning.

Senator MANCHIN. Well, I'll throw this back——

Dr. EDMONDSON. Yeah.

Senator MANCHIN.—to the Chairman right now. I'm sure he has a comment on that.

Chairman MCCAIN. I think an important comment was just made, "They need to learn to change." I think that that's a fundamental, here, that we're grappling with, that——

Thank you, Doctor.

Senator Ernst.

Senator ERNST. Thank you, Mr. Chair.

Thank you, to the witnesses today. This has been a very interesting conversation.

General McChrystal, I want to thank you, especially, for your leadership at the 75th Ranger Regiment. Fantastic organization.

General, I'll start with you. As you may know, the DOD, under its Force of the Future Plan, is looking at directly commissioning more civilians at the O6 grade. Do you believe the Department needs more direct commissioned officers at the O6 level? Yes or no, sir.

General MCCHRYSTAL. I do, and I think not just at the O6 level. I actually think lateral entry into the military services—right now, the military services, by definition, are a guild. You start at entry, and you work your way up. You get some great competence, but the reality is, by the time you reach a certain level, you are a product of that organization, good and bad. I think fresh air coming in laterally is doable, and I think it would be very beneficial.

Senator ERNST. Is there something, then, that we're missing, as a uniformed military, where we cannot fill those positions with DOD contractors or others that serve in the civilian force, rather than commissioning them into the military?

General MCCHRYSTAL. I think commissioning them in has an advantage. I think you bring people in, they become part of the orga-

nization; they're not external, like a contractor. I also think they go back out again, and if you think about America, what we need is more people in America who have served in uniform. Maybe they don't do it when they're age 18, maybe they do it when they're age 45, but they go back out into business or politics or whatever they do. I think they go out richer, and I think America's military becomes more integrated with our society again.

Senator ERNST. Do you think that that should be limited to specific areas within the military, then? Maybe the CYBERCOMs or—of course, we do it with doctors, lawyers. Or do you think an infantry officer could——

General MCCHRYSTAL. I am not——

Senator ERNST.—get in as an O6?

General MCCHRYSTAL.—reflecting the opinion of anybody but me. I think we can bring people in. I've run into competent executives out in the world who could come in, and they could be infantry officers. I tell them, "In 6 months, we could teach you enough to do what you have to do, and your leadership skills and your wisdom, and you'd be able to perform." Think of what has happened in our big wars, the Civil War, Revolution. People came out of the civilian world and did wonderful service. I think that there's a backbone of professional military who spend a whole life there, but I think I—a breathing, a moving in and out of fresh air would be positive for everyone.

Senator ERNST. I would tend to agree, in certain circumstances, as well, sir.

I know this is a different topic for another day, but I know that there have been some challenges with moving females into infantry leadership roles immediately. But, I think there are some certain advantages there, as well, and we can talk about that another time.

But, in your experience, how challenging—and we've talked a little bit about this. Dr. Edmondson, you said, "Learn to change." If I could get, from the whole panel, how challenging it is for the DOD to reform itself.

General, when you, maybe, were a platoon leader, years ago, and for—to the time you retired, we have become increasingly complex around the globe with what our military is facing. Understanding that we have those challenges, why is it so hard for the DOD to reform itself?

I'd just like all of you to discuss that. Yeah, thank you.

Mr. LOCHER. Senator, I've had lots of experience trying to change the Department of Defense. I should say that it objected to the two biggest transformations in the last 70 years, the first being the Goldwater-Nichols Act, and the second being the Cohen-Nunn Amendment that created the U.S. Special Operations Command.

Today, why is it that the Pentagon leadership has not looked at what's going on in modern organizations and brought these concepts into the Department? The first problem is, they're too busy. They've inherited a Department that's antiquated. They have all of these problems around the world.

I was there in the transition at the beginning of the Clinton administration, when Secretary Aspin came in. After he had been on

the job for a few days, he said, "Mr. Locher, where do all of these problems come from?"

They are just completely overwhelmed. They have a bureaucracy that's not working, but they have all of these demands. They are not able to take their time and attention to try to fix the bureaucracy. That's one of the great benefits of section 941. The Congress is going to mandate these changes.

You also have the cultural issues. We have a very entrenched culture in the Pentagon that grew up consensus-driven. Things get watered down. We're in the functional stovepipes. We've never been brought together in teams. But, I think there's also a tendency that they don't understand the modern organizational practice. They understand what they're doing, and how hard they are working. As you may know, people in the Pentagon are working incredibly hard. They're just working in a very ineffective system.

So, there are lots of reasons, and I think it's imperative that the committee press ahead and help the Department of Defense with this particular issue.

Senator ERNST. Very good. Thank you.

Yes, General.

General MCCHRYSTAL. Senator, I arrived in the Pentagon, for my first tour, as a brand new major general coming out of Afghanistan. To get to Jim's point, I was running hard to figure out how the Pentagon worked. This was the ramp-up to the entry into Iraq, and so, the reality is, I'm so busy trying to figure that out—and I was only there 14 months, to the day, before I moved out. So, the reality is, I think I'm not really uncommon of a lot of the military leaders that come through. Then there is a bureaucracy that gets stuck.

So, I think it needed help from the outside to make the kind of changes that were recommended.

Senator ERNST. Very good.

Thank you.

Chairman MCCAIN. Do you know of many people of your grade at that time who sought to work in the Pentagon?

General MCCHRYSTAL. No, Mr. Chairman, I do not.

[Laughter.]

Chairman MCCAIN. Senator King.

Senator KING. Thank you, Mr. Chairman.

I'm very supportive of this concept, as a general principle. I have some specific questions about execution in section 941.

I guess I want to begin—Dr. Edmondson, you cited a bunch of cases from business. Here's my fundamental question. Are cross-functional team usually an *ad hoc* response to a problem or a series of problems, or are cross-functional teams, themselves, institutionalized within the organization of Nissan or Cisco or whatever other cases you've cited?

Dr. EDMONDSON. Yes, Senator.

Senator KING. Both.

Dr. EDMONDSON. Both. So, it depends. So, in Nissan, the CEO—first of all, you know—and it relates to Senator Ernst's point, as well, or question—for every successful transformation, there is a company that dies along the wayside. For every IBM, there's a DEC. For every Ford, there's an American Motors. To make it hap-

pen—so, Nissan, Carlos Ghosn said, "We will have nine cross-functional teams." It was his idea.

Senator KING. But, do they still exist? That—my question——

Dr. EDMONDSON. No. So, I'll—so, the—his idea, "These are the nine issues"——

Senator KING. I have only 5 minutes, so please——

Dr. EDMONDSON. They do not—they do not still exist. They do not still exist. They were there to put in—to make some necessary changes, save the company. Then they ceased to exist. From their point of view, thank goodness. They had their day job still to go back and——

Senator KING. Well, that's my——

Dr. EDMONDSON. Yeah.

Senator KING. Mr. Locher, that's my——

Dr. EDMONDSON. But, there are some organizations that institute cross-functional mechanisms to stay all the time if there's a recurring set of similar issues.

Senator KING. Well, Mr. Locher, that's my question, is, the—all for our cross-functional teams, but, by writing them in and requiring that they be established, isn't that almost a contradiction in terms, that you're creating a new bureaucratic structure on top of the old bureaucratic structure? When I think of cross-functional teams as more *ad hoc* and responsive to problems as they arise.

Mr. LOCHER. Senator King, the—as it turns out, a cross-functional team could exist for 3 days, for 3 weeks, 3 months, 3 years——

Senator KING. But, this statute talks——

Mr. LOCHER.—or 3 decades.

Senator KING.—about them being established as an ongoing part of the organization of the Pentagon.

Mr. LOCHER. Yes, but it only—it does not say what teams are to be created. The Secretary of Defense could decide—he only has to create six teams. That's a minimum beginning. Eventually, when this gets established in the Department of Defense, it's going to be used everywhere. The Joint Staff, where General McChrystal was the Director, will turn and will employ cross-functional teams. As it—it's saying that this is a concept that the Pentagon should employ. The Secretary gets to decide what teams they are. He can change those teams. He can terminate them when they've served their purpose.

Senator KING. So, you feel that this particular legislative language, which is what we're talking about, is not too prescriptive, in terms of essentially setting up an alternative bureaucracy.

Mr. LOCHER. It is not. It gives a broad mandate from the Congress, but then leaves it to the Secretary of Defense to identify which areas he's going to create mission teams in, or whether there are other priority outputs that he wants to focus on. He can disestablish those teams when they've served their purpose. He could create others. He could create many more teams than the six that are mandated here.

Senator KING. Well, it seems to me that what we're really talking about here is Goldwater-Nichols 2.0, applying the Goldwater-Nichols principles to the joint commands, which was a kind of forced in-

tegration of the forces, to a forced integration of the bureaucracy. Is that a fair statement——

Mr. LOCHER. Well, it's correct. You know, in Goldwater-Nichols, we sort of did cross-service collaboration.

Senator KING. Exactly.

Mr. LOCHER. Here we're talking about cross-functional collaboration, primarily at the headquarters level, but it can be applied in the field, as well. You know, out in the field, we've done better with leaders who put together—collaborating across the services. But, our headquarters is 30 years out of date, and it can be improved considerably by these collaboration concepts.

Senator KING. A friend of mine once observed that Freud said, "Anatomy is destiny," and Napoleon said, "War is history." My friend said, "Structure is policy." I think that may be what we're talking about here, is, if you have a structure that is overly bureaucratic and rigid, the policy will be slow, cumbersome, and itself not responsive to immediate problems. Is that a fair——

Mr. LOCHER. I think that's absolutely on target. Dr. Edmondson was talking about a different mindset. We need to get out of thinking inwardly. In the functional silos, people are looking inwardly. They're looking to the responsibility of their office. What we need them to do is think about: What is the mission of the Department of Defense in this particular area? How do I collaborate with others who have expertise here and pull together all of that expertise to solve the problem of the Department of Defense?

Senator KING. Well, I think the Chairman made an interesting observation about architecture. It's no accident that the most creative companies—and I go through them—very rarely do they have walls. It's not because they can't afford cubicles, but because they found that people having a free flow of collaboration and ideas, sitting around in a "living room" kind of setting is effective. They're—these are very smart companies that make a lot of money, and they know what they're doing. The idea of everybody in a little closed box with a door is not the way modern business is done.

So, I appreciate your testimony very much.

Mr. Chairman, thank you for calling this important hearing.

Chairman MCCAIN. Well, we have a ways to go before the President signs the defense authorization bill, for a lot of reasons. But, one of the reasons that was stated in the statement of administration policy was that they did not—that they strongly disapproved of this section of the defense authorization bill. The reaction that we've gotten to it has been overwhelmingly positive.

This hearing has been very helpful, I think, and we'll see whether we are able to restructure—I think, frankly, it's a matter of "time" rather than "whether." If this effort fails, sooner or later the Pentagon is going to have to catch up with the 21st century. And——

Go ahead, Jim.

Mr. LOCHER. Mr. Chairman, one thing I should mention. I don't know how the National Defense Authorization Act is going to work out this year, but one thing that the committee can absolutely do is, when it has confirmation hearings next year for presidential appointed officials in the Department of Defense, I would insist that every person that comes is schooled on collaboration, cross-func-

tional teams, modern organizational practice, and committed to their effective use in the Department of Defense. That's an area in which I would question them, and I'd make certain that they're committed. Hopefully, they'll have this mandate in law to assist them. But, you do also have that hammer at the beginning of the next administration.

Chairman MCCAIN. That would be a good way to make America great again.

[Laughter.]

Chairman MCCAIN. Do you want——

Senator REED. I can't follow that.

[Laughter.]

Senator REED. I simply want to thank the witnesses. I—and we are engaged in a—I think, because of the Chairman's leadership, we've got this issue in play. It's critical. I think we have to do it. We can—I think we—with a productive dialogue with everyone—and you're—have been particularly productive—but, with DOD, with the administration, we can get a better product than even we think we have now. I hope so.

Thank you, Mr. Chairman.

Chairman MCCAIN. Thank you.

Hearing is adjourned.

[Whereupon, at 11:03 a.m., the hearing was adjourned.]

[Questions for the record with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR KELLY AYOTTE

CROSS-FUNCTIONAL TEAMS

1. Senator AYOTTE. Mr. Locher, section 941 of the Senate passed fiscal year 2017 National Defense Authorization Act, would require the Secretary of Defense to identify the most important missions and other organizational outputs that cross functional teams would focus on. What do you believe are the most important missions and outputs that these cross-functional teams should focus on?

Mr. LOCHER. The Secretary of Defense should consider the following missions and priority outputs for cross-functional teams:

i. Missions
   1. Combating terrorism
   2. Defeating the Islamic State of Iraq and Levant (ISIL)
   3. Stabilizing Afghanistan
   4. Deterring Russian aggression
   5. Managing the competition with China
   6. Deterring North Korea
   7. Countering Iran's influence
   8. Defending cyberspace
   9. Ensuring access to space

ii. Priority Outputs
   1. Formulating an organizational strategy for DOD
   2. Formulating the Third Offset Strategy
   3. Supporting the fighting force
   4. Building the future force
   5. Reforming the defense institution
   6. Reducing excess infrastructure
   7. Improving acquisition

DOD ACQUISITION REFORM

2. Senator AYOTTE. Mr. Locher, former Secretary Gates said in his October 2015 testimony, "I soon learned that the only way I could get significant new or additional equipment to commanders in the field in weeks or months, not years, was to take control of the problem myself through special task forces and ad hoc processes . . . " He cited the examples of the MRAP vehicles, additional intelligence, sur-

veillance and reconnaissance capabilities, and shortened medevac times. Yet, as he recognized, the Secretary does not have the ability to devote this much personal time and attention to more than a few projects at a time. Doesn't this consistent need to bypass traditional acquisition processes and offices—and instead utilize rapid equipping and fielding offices to get our warfighters what they need on time—demonstrate the need to reform the Pentagon's acquisition processes?

Mr. LOCHER. Absolutely! The use of special task forces (cross-functional teams by another name) and ad hoc processes clearly demonstrates that the existing structure and processes are not working.

3. Senator AYOTTE. Mr. Locher, how can the organizational reform envisioned by Section 941 and cross-functional teams improve the current acquisition system that produces too many programs that are over-cost and over-schedule and fail to be responsive to the warfighters?

Mr. LOCHER. The potential for cross-functional teams to improve the performance of the DOD acquisition system was identified more than twenty years ago. In 1995, Secretary of Defense William Perry created cross-functional teams, which he called Integrated Product Teams, to handle individual acquisition programs. As I noted in my testimony, at the time, Secretary Perry argued that DOD "must move away from a pattern of hierarchical decision-making to a process where decisions are made across organizational structures by integrated product teams. It means we are breaking down institutional barriers." Unfortunately, Secretary Perry's mandate for multidisciplinary teamwork bore little fruit. It contained a fatal flaw: It permitted the heads of functional silos to carefully control their Integrated Product Team members. This forced each team member to protect the prerogatives of their parent organization rather than working to provide the best solution to the product team's acquisition task.

Currently, groups managing acquisition programs are prone to begin with optimistic assessments of program capabilities and costs. As they build the program and determine more accurately the technology and performance options available if the program is to remain on time and budget, they are faced by difficult choices. They must accept lesser performance in some marginal areas in order to obtain the most important program capabilities. However, a group that can only move forward on the basis of consensus cannot do that. Thus, our programs tend to be gold-plated and over-budget and take much longer to execute than desirable. An empowered program manager (team leader) and team of specialists could make these critical decisions much better. This is one reason classified programs tend to do better. They are shielded from the layers of consensus-building groups that normally guide our acquisition process.

Section 941 prescribes requirements for cross-functional teams that would enable them to overcome this fatal flaw and successfully fulfill their missions. It would carefully protect the teams from interference by leaders of functional organizations and enable the program manager/team leader and his or her team to deliver a product faster and closer to original cost estimates and with the most important capabilities rather than all the capabilities desired by participating organizations.

OFFICES WITHIN PENTAGON BUREAUCRACY

4. Senator AYOTTE. Mr. Locher, if we create new cross-functional teams, what parts of the Pentagon bureaucracy should be eliminated to ensure we are not simply adding additional layers of bureaucracy without eliminating unnecessary or redundant layers?

Mr. LOCHER. The natural response of an organization failing to perform well is to increase effort. Some functional leaders in the Pentagon can see the need for cross-functional solutions, but they cannot get other functional elements to cooperate. If they attempt to collaborate, those organizations thwart their efforts. Everyone can say "no" and derail a solution, but no one other than the Secretary of Defense has the authority to integrate a cross-functional solution. So, functional elements compensate by expanding their offices to include functional experts from other disciplines, adding people with budget, technology, or policy expertise. As the office staff expands in size, more management is needed. These middle managers zealously guard their prerogatives and naturally compete with other offices vying for similar functional knowledge. Each office hoards their information rather than sharing it. Consequently, the overall organization increases in size and management levels but remains unable to accomplish cross-functional missions well.

This describes the Pentagon today. In an effort to use the outdated functional bureaucracy to solve today's complex, cross-functional defense challenges, the Pentagon has added more personnel and management levels. These additional man-

agers and personnel work incredibly hard but to little avail. No amount of hard work can overcome the obstacles created by a rigid functional structure, non-collaborative culture, and the wrong organizational and individual incentives.

Cross-functional teams have been shown to be much more efficient in formulating effective solutions to complex problems. If the Secretary of Defense were successful in establishing and empowering cross-functional teams, it would be possible to identify and eliminate excess management layers and personnel. Section 941 mandates these actions. Within a year of the next Secretary of Defense's appointment, he or she would be required under the subsection (e) of Section 941 to "take such actions as the Secretary considers appropriate to streamline the organizational structure and processes of the Office of the Secretary of Defense in order to reduce spans of control, achieve a reduction in layers of management, eliminate unnecessary duplication between the Office and the Joint Staff, and reduce the time required to complete standard processes and activities."

QUESTIONS SUBMITTED BY SENATOR MAZIE K. HIRONO

FORMATION OF CROSS-FUNCTIONAL TEAMS

5. Senator HIRONO. Mr. Locher, you mentioned in your testimony that the Secretary of Defense has control over what cross-functional teams will be formed and also has control over how long these teams will be implemented, depending on their purpose. What areas would benefit the most from the implementation of cross-functional teams? How would cross-functional teams succeed in the combatant commands compared to the OSD environment?

Mr. LOCHER. In an earlier question for the record from Senator Ayotte, I suggested nine missions and seven priority outputs that would immensely benefit from using cross-functional teams.

Cross-functional teams could also be successfully employed in combatant commands. At present, the headquarters staff of each combatant command is organized around a traditional military staff structure, such as: J–1 (Personnel), J–2 (Intelligence), J–3 (Operations), J–4 (Logistics), J–5 (Policy), J–6 (Communications), J–7 (Exercises and Assessments), J–8 (Resources), and J–9 (Interagency Partnering). This is the same type of functional structure that is hampering the ability of OSD offices to address missions and priority outputs that cross multiple functional boundaries. For example, the U.S. Pacific Command's Posture Statement, presented to the committee in March 2016, prioritized the following six mission areas: North Korea, natural disasters, territorial disputes, cyber, violent extremism, and Chinese military modernization and intent. One J-directorate cannot comprehensively address any of these missions. On the contrary, each mission will involve many J-directorates. The best organization approach for comprehensively and rapidly integrating these diverse functional perspectives is a cross-functional team.

The U.S. Northern Command successfully employed cross-functional teams under the leadership of Admiral James A. Winnefeld Jr., during his command tour from May 2010 to August 2011. He created eight teams, called Focus Area Synchronization Teams, for the following missions: (1) Counter-Terrorism and Force Protection; (2) Transnational Criminal Organizations; (3) Defense Support to Civil Authorities; (4) CBRNE Consequence Management; (5) Aerospace Warning and Control; (6) The Arctic; (7) Missile Defense; and (8) Maritime Warning and Control. These teams were directed by a general officer or civilian equivalent and synchronized efforts across the command and its J-directorates. Admiral Winnefeld assigned each team clear tasks and made them directly accountable to him. Some staff observed that headquarters-wide engagement and conflict resolution were better with the eight cross-directorate teams than at any other time in Northern Command's history. After Admiral Winnefeld's departure, the new commander—bowing to pressure from the J-directorates—disbanded the teams despite their utility. Nevertheless, this experiment at the U.S. Northern Command demonstrates that cross-functional teams would enable combatant commands to more effectively address their missions.

Although Section 941 only mandates cross-functional teams centered on the Office of the Secretary of Defense, it can be expected that this advanced organizational practice will quickly spread to the Joint Staff, military department headquarters, and combatant command headquarters.

GOLDWATER-NICHOLS LESSONS LEARNED

6. Senator HIRONO. Mr. Locher, you were heavily involved in the Goldwater-Nichols Defense Reorganization Act of 1986 and helped to shape the Department of

Defense as we know it today. Looking back over 30 years, what are some of your lessons learned from the policies you helped to implement? Is there anything you wish had been done differently?

Mr. LOCHER. There are three important lessons that I learned from the enactment and implementation of the Goldwater-Nichols Act. First, in formulating reforms, it is imperative to have a precise understanding of the problem to be fixed and its causes. It is not possible to devise effective reforms without a full appreciation of the problem and its causes, because it is the causes that reforms must target. One Goldwater-Nichols provision where the necessary understanding of problems and causes was not achieved was the requirement for the president to submit annually a national security strategy. The president does occasionally submit a document with that title, but it falls far short of being a strategy. In Goldwater-Nichols, the two Armed Services Committees did not understand the obstacles to the formulation of a genuine national security strategy.

A second lesson is the need for rigorous congressional oversight of reform implementation. At the time of Goldwater-Nichols, the two committees understood that 50 percent of the reform battle would be implementation. Accordingly, the committees wrote reporting requirements into the law, requested reports from the U.S. Government Accountability Office, and conducted oversight hearings. All of these actions were needed in an effort to achieve a high degree of compliance with congressional intent. In some instances, however, Pentagon implementation was poor. This was the case for the joint officer management provisions. The two Armed Services Committees planned to rely on senior joint officers—the Chairman and Vice Chairman of the Joint Chiefs of Staff and combatant commanders—to ensure rigorous implementation. This expectation did not materialize. Senior joint officers showed no interest in joint officer management. On the other hand, the four services did, but they had different objectives. They wanted to advance the interests of their service not the interest of the joint world. In this case, congressional oversight was not vigilant enough.

A third lesson is the great difficulty of the Department of Defense to reform itself. All organizations—business, government, and nonprofit—are challenged to reorganize themselves when performance is disappointing. As one of the world's largest and most complex organizations, the Department of Defense has proven to be especially challenged. It bitterly opposed the two greatest defense transformations of the last 70 years: the Goldwater-Nichols Act and Cohen-Nunn Amendment that created the U.S. Special Operations Command and forced the Pentagon to begin addressing the irregular warfare that dominates conflict today. Similarly, the Pentagon is staunchly resisting the provisions of section 941, which would bring about the next revolution in defense organization.

As to what I would have done differently, I should note that there were very few issues that could have been addressed differently. Goldwater-Nichols was a bitter battle between pro-reform members of the two Armed Services Committees and the Pentagon and their anti-reform allies on the two committees. This battle lasted for four years and 241 days. The final bill pushed the reform envelope in 1986 about as far as it could be pushed.

Beyond political constraints, some organizational concepts had not yet been developed. It has been noted that the cross-functional-team concepts that underpin section 941 were unknown in the mid-1980s. Thus, there was no definitive solution to the Senate Armed Services Committee's concern about the lack of mission integration in DOD headquarters.

Recognizing that political and conceptual constraints would have made it difficult to do things differently, let me identify several topics that I wish could have been addressed better: (1) development of solutions to the Pentagon's mission integration problem; (2) civilian education on leadership, management, and organization, especially for senior DOD leaders; (3) merging the service secretariats and military headquarters staffs; (4) better promoting strategic needs in the use of resources, which are still dominated by service perspectives; (5) formulation of strategy; and (6) management and oversight of defense agencies, whose total budget is now as big as a military department budget.

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