Stenographic Transcript Before the

Subcommittee on Seapower

COMMITTEE ON ARMED SERVICES

## **UNITED STATES SENATE**

HEARING TO RECEIVE TESTIMONY ON MARINE CORPS GROUND MODERNIZATION IN REVIEW OF THE DEFENSE AUTHORIZATION REQUEST FOR FISCAL YEAR 2017 AND THE FUTURE YEARS DEFENSE PROGRAM

Wednesday, April 13, 2016

Washington, D.C.

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| 1  | HEARING TO RECEIVE TESTIMONY ON MARINE CORPS GROUND          |
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| 2  | MODERNIZATION IN REVIEW OF THE DEFENSE AUTHORIZATION REQUEST |
| 3  | FOR FISCAL YEAR 2017 AND THE FUTURE YEARS DEFENSE PROGRAM    |
| 4  |                                                              |
| 5  | Wednesday, April 13, 2016                                    |
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| 7  | U.S. Senate                                                  |
| 8  | Subcommittee on SeaPower                                     |
| 9  | Committee on Armed Services                                  |
| 10 | Washington, D.C.                                             |
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| 12 | The subcommittee met, pursuant to notice, at 2:00 p.m.       |
| 13 | in Room SR-232A, Russell Senate Office Building, Hon. Roger  |
| 14 | F. Wicker, chairman of the subcommittee, presiding.          |
| 15 | Members Present: Senators Wicker [presiding], Ayotte,        |
| 16 | Rounds, Tillis, Sullivan, Hirono, Kaine, and King.           |
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OPENING STATEMENT OF HON. ROGER F. WICKER, U.S.
 SENATOR FROM MISSISSIPPI

Senator Wicker: Good afternoon. This hearing will
come to order. The Senate Armed Services Subcommittee on
SeaPower convenes this afternoon to examine Marine Corps
ground modernization programs.

7 This afternoon, we welcome Mr. Thomas Dee, Deputy 8 Assistant Secretary for the Navy for Expeditionary Programs 9 and Logistics Management; and Lieutenant General Robert S. 10 Walsh, who serves as Deputy Commandant for Combat 11 Development and Integration. General Walsh is also the 12 Commanding General of the Marine Corps Combat Development 13 Command.

14 Gentlemen, thank you for your service. And we thank 15 the 184,000 marines who serve in more than 40 countries 16 around the world. The Nation asks much of the Marine Corps. 17 Its amphibious mission, its role as the Nation's expeditionary crisis response force, and its provision of 18 19 key enablers to joint task forces from Kandahar to Anbar to 20 northern Iraq offer a unique set of capabilities. The 21 United States calls upon these capabilities often. 22

The consequences of this high operation tempo and fiscal uncertainty are clear. As General Neller observed last month before the full committee, the Marine Corps is no longer in a position to simultaneously generate current

1 readiness, reset our equipment, sustain our facilities, and modernize to ensure future readiness. The modernization of 2 3 the Marine Corps, particularly of its ground forces, must be even more focused and economical than usual. Fortunately, 4 5 Marine Corps -- marine ground programs are targeted, 6 relatively small, and well managed. Today, our witnesses will update us on their work to meet the need for the 7 8 Nation's global crisis response force. They will provide 9 assessments of Marine Corps requirements, going forward. And, of course, they will answer critical questions. 10

11 First and foremost, the subcommittee wishes to discuss 12 the Marine Corps's strategy for modernizing its vehicle fleet, particularly the amphibious combat vehicle and the 13 14 joint light tactical vehicle. This fleet provides maneuver 15 from the sea as well as protection and tactical flexibility 16 ashore. The subcommittee wishes to discuss the design, suitability, and acquisition strategy for the amphibious 17 combat vehicle, or ACV, which are perhaps most critical to 18 19 the Corps's amphibious role.

Last fall, two companies received contracts to develop prototypes of the first increment of the ACV. This vehicle will serve as a substitute for the canceled marine personnel carrier, utilizing wheels and a limited swim capability that will likely require a connector to move it ashore. A fully amphibious increment of ACV that can be -- that can self-

deploy is being considered for future development. I'm
 interested in the progress of both concepts and the plan,
 going forward.

We also want to discuss the joint light tactical 4 5 vehicle, or JLTV. I'm encouraged by the process the Army 6 and Marine Corps have made on this multiservice program, which provides our troops with a highly mobile protected 7 means of transportation. The subcommittee would benefit 8 from hearing how the Marine Corps plans to acquire its fleet 9 of 5500 JLTVs, particularly in light of the decision to 10 11 defer 77 vehicles in fiscal year 2017, and to provide more 12 funding to the ACV and the ground/air task-oriented radar programs. Such shortfalls have an impact on capability, 13 14 readiness, and program cost that must be addressed in order 15 for our Humvees to be replaced as soon as possible.

16 More broadly, we remain committed to maintaining a healthy industrial base through competition. With both the 17 ACV and the JLTV, I understand the Marine Corps relies on 18 19 competition to gauge, early on, what is technologically 20 feasible and affordable. Competition requires viable 21 competitors, which we do not always have. I would like our 22 witnesses to provide their best assessment of the state of 23 the U.S. industrial base for ground combat and tactical 24 vehicles. I hope they will suggest what can be done to 25 sustain the vitality of our manufacturing base.

1 In addition to its work on tactical vehicles, I've previously mentioned the Marine Corps's development of the 2 ground/air task-oriented radar, or G/ATOR, to replace five 3 older radars. And I believe this is a matter for 4 5 discussion. Intended as an all-purpose system that can 6 provide marines with early warning from missiles, indirect fire, and aerial systems, G/ATOR will also provide air 7 traffic control capabilities. The subcommittee wishes to 8 learn more about this complex program and its future role. 9

We're eager to hear our witnesses discuss other equipment essential to the Marine Corps mission, such as small arms. Over the past year, the Marine Corps has collaborated with the Army on a joint 5.56-millimeter round. I hope our witnesses can speak to the status of this important project. We also welcome updates on the status of other critical capabilities, such as artillery and armor.

17 The Marine Corps budget accounts for approximately 6 percent of DOD's total budget. I remain concerned about the 18 19 impact of budget uncertainty on modernization and readiness 20 across the Defense Department, but especially on the Marine 21 Corps. As such, I hope our witnesses today will elaborate 22 on the impact that uncertainty has on our expeditionary 23 marines, their ability to execute our country's national 24 security strategy, and the vitality of our defense 25 industrial base.

| 1  | So, we look forward to your testimony.                    |
|----|-----------------------------------------------------------|
| 2  | And I'm delighted, as I always am, to be joined by my     |
| 3  | teammate and Ranking Member, the Senator from Hawaii, Ms. |
| 4  | Hirono.                                                   |
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1 STATEMENT OF HON. MAZIE K. HIRONO, U.S. SENATOR FROM 2 HAWAII

Senator Hirono: Thank you very much, Mr. Chairman, for
holding this important hearing on Marine Corps ground
modernization.

6 And, of course, I'd like to welcome our witnesses and 7 thank you for your service.

8 First, I'd like to begin by acknowledging the men and 9 women serving in support of U.S. Marine Corps Forces Pacific 10 and Marine Corps Base Hawaii. These marines are vitally 11 important to our national defense and for the ongoing 12 rebalance to the Asia Pacific.

13 Currently, Secretary Carter is traveling to the region 14 to solidify our relationship with our Asia-Pacific partners. 15 And I commend the Department for the continuing emphasis and 16 commitment on the rebalance.

17 Our hearing today is focused on the Marine Corps's ground modernization. But, after nearly 15 years of 18 19 continuous military operations, it is crucial that we 20 evaluate the current status of our military forces also. 21 Last year alone, the U.S. Marine Corps conducted 100 22 operations, 20 amphibious operations, 140 theater security 23 cooperation events, and 160 major exercises. While our 24 marines remain ready and capable to address contingencies at 25 a moment's notice, challenges persist.

In their budget request, the Marine Corps made rebuilding readiness in the Active Duty Marine Corps and the Marine Corps Reserves a priority. Currently, less than half of our Marine Corps units are ready to perform their core wartime mission, and 80 percent of aviation squadrons do not have the required number of aircraft to train.

Furthermore, increased readiness includes not only 7 8 training, but providing marines with equipment that has been reset and is in proper working order. According to the 9 Marine Corps, 77 percent of its ground equipment has been 10 11 reset. However, the budget request funds ground depot 12 maintenance in the base budget and OCO accounts at 79 percent of the validated requirement, which could impact the 13 14 readiness of nondeployed units in the future.

15 To ensure that our marines will be supplied with the 16 most effective equipment, the fiscal year '17 budget request 17 makes targeted investments in the ground combat and tactical vehicle portfolio of the Marine Corps. And this budget 18 19 provides 158.7 million in funding to the amphibious combat 20 vehicle, ACV, program for research, development, testing, 21 and evaluation, RDT&E, activities. Fielding the ACV is 22 imperative, as it will replace the amphibious assault 23 vehicle, AAV, which has been in operation for over 40 years. 24 Some of the other comments that I will make will echo what the Chairman has already noted, but I think that that's 25

1 good, because that means he and I are on the same page.

2 In November 2015, the Marine Corps awarded contracts to two vendors, each tasked with building 16 prototypes of the 3 ACV 1.1 vehicle to be used for testing over the next 2 4 5 years. Following testing, the Marine Corps plans to down-6 select to a single vendor. I welcome an update from our 7 witnesses on the status of the program. And in particular, 8 I would like your thoughts on whether you anticipate any 9 problems with the program schedule due to the contract 10 protest, which I know has been resolved.

11 The other priority for the Marine Corps is the joint 12 light tactical vehicle, JLTV. JLTV is a joint Army and Marine Corps program that will replace the high mobility 13 14 multi-wheeled vehicle, another acronym, HMMVV -- -WV. The 15 fiscal year budget includes 136.2 million in funding for the 16 JLTV program; and, of this amount, 113 million will be used to procure 192 vehicles, while 23.3 million is dedicated to 17 the RDT&E activities. And over the course of the program, 18 19 the marines will procure a total of 5500 vehicles. And, of 20 course, we know the Army will procure many, many more of 21 these vehicles.

Like the ACV program, the JLTV program also had a vendor protest following the contract award. The protest was finally resolved in the Marine Corps's favor in February, but the winning vendor was under a stop-work order

1 until the issue could be resolved. Again, I would like to 2 know from our witnesses what impact this delay will have on 3 this particular program.

4 One final program critical to Marine Corps ground 5 modernization is the amphibious assault vehicle, AAV. The 6 Marine Corps is currently upgrading part of their AAV fleet with survivability upgrades to address obsolescence and 7 8 increase the vehicle's capability until the AAV can be replaced by the ACV, the amphibious combat vehicle. It is 9 10 my understanding that this program is slightly ahead of 11 schedule and that the Marine Corps is on track to begin 12 testing this month.

In addition to the major ground modernization programs 13 14 that I've highlighted, the Marine Corps is also developing 15 the common aviation command and control systems which will 16 consolidate the current control system of the marine air 17 command and control systems into a single upgraded system with common hardware, software, and equipment. The Marine 18 19 Corps is also developing, as the Chair mentioned, the 20 ground/air task-oriented radar, G/ATOR. The G/ATOR is an 21 expeditionary radar system that will replace legacy radar 22 systems currently fielded by the marine air-ground task 23 force. However, this committee has expressed concerns about 24 the status of this program, including poor developmental 25 test results and reliability issues with the system's

software. I look forward to any comments our witnesses have
 on this program.

Again, thank you, Mr. Chairman, for holding this hearing. And I look forward to hearing from the witnesses. Senator Wicker: Thank you, Senator Hirono. Gentlemen, you have submitted a joint statement consisting of 9 pages, which will be inserted in the record at this point, without objection. Lieutenant General Walsh, I see that your name is listed first on the statement, so you are recognized for whatever comments you might have. 

STATEMENT OF LIEUTENANT GENERAL ROBERT S. WALSH, USMC,
 DEPUTY COMMANDANT FOR COMBAT DEVELOPMENT AND INTEGRATION;
 COMMANDING GENERAL, MARINE CORPS COMBAT DEVELOPMENT COMMAND
 General Walsh: Okay. Thank you, Chairman Wicker and
 Ranking Member Hirono, also Senator Rounds, Senator Kaine,
 and Senator King. Thank you very much for allowing us to be
 here.

Joining me today is my good friend, Mr. Tom Dee, Deputy Assistant Secretary of the Navy for Expeditionary and Logistics Management. And, with your permission, I'd like to submit that for the record, our written testimony.

12 Senator Wicker: It will be received.

General Walsh: The Marine Corps's ability to serve as the Nation's premier crisis response force is due, in large part, to the subcommittee's continued strong support on behalf of all marines and your marines, and we thank you for that.

The Marine Corps faces a challenging future operating 18 19 environment in which peer and near-peer adversaries approach 20 parity with some key capabilities. Anti-access and area-21 denial capabilities will proliferate and are becoming 22 cheaper, more lethal, and harder to target from our end. 23 Hybrid adversaries with mass signatures will fight in 24 distributed fashion in densely populated urban littorals, 25 and U.S. satellite capabilities may be degraded or denied.

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Cyberthreats will target the digital networks that are
 central to the way we currently fight. Adversaries will
 leverage advanced commercial off-the-shelf, or COTS,
 technologies to outcycle our acquisition process.
 Information warfare will exploit global communications in
 social media. We will face all these challenges in an area
 of reduced manpower and fiscal austerity.

8 To fight and win in such an environment, we are conducting a very deliberate forced structure review that 9 10 will field future marine air-ground task forces that are 11 naval, leveraging the sea as maneuver space to project power 12 from the sea base; lethal, employing 21st-century combined arms; agile, employing 21st-century maneuver to generate 13 14 overmatch of combat power with the ability to rapidly 15 aggregate forward from distributed locations and from CONUS; 16 and expeditionary, able to rapidly deploy, employ, sustain 17 in littorals and further inland.

With the smallest modernization budget in the 18 19 Department of Defense, the Marine Corps continually seeks to 20 leverage the investments of the other services. Carefully 21 allocating our modernization resources to those investment 22 areas which are most fiscally prudent and which -- those 23 that promise the most operationally effective payoffs. 24 Innovative warfare fighting approaches and can-do leadership 25 are hallmarks the Marine Corps, but these cannot overcome

1 the vulnerabilities created by our rapidly aging fleet of vehicles. Long-term shortfalls in modernization have a 2 detrimental impact on readiness, degrade our crisis response 3 4 capability, and will ultimately cost lives during crisis. 5 We are seeking to balance the increasing costs of 6 maintaining legacy platforms with the needed investments in modernization across many portfolios. Eventually, 7 sustaining fleets of severely worn and legacy systems become 8 inefficient and no longer cost-effective. 9

10 Our ground vehicle modernization strategy is to 11 sequentially modernize priority capabilities, reduce 12 equipment inventory requirements wherever possible, and judiciously sustain remaining equipment. 13 The future 14 security environment requires a robust capability to operate 15 from the sea and maneuver ashore to positions of advantage. 16 The amphibious combat vehicle enables us to do so and 17 is the Marine Corps's highest-priority ground modernization program, and consists of two increments. This program, when 18 19 coupled with improvements to our existing fleet of assault 20 amphibian vehicles, generates a complementary set of 21 capabilities to meet the general support lift capability and 22 capacity requirements of our ground combat element.

The second highest priority within the portfolio remains the replacement of our Humvee fleet that is most at risk, those trucks that perform a combat function and are

typically exposed to enemy fires. In particular, the Army, the Marine Corps have sequenced the JLTV program to ensure affordability in the entire GCTV portfolio while replacing 5,500 units of the legacy Humvee fleet with modern tactical trucks prior to fielding the first increment of ACV.

6 These core Marine Corps modernization efforts have been 7 designed in a manner to ensure their affordability. 8 However, if the budget is fully sequestered in FY-17 or 9 beyond, it will jeopardize both the timing and resources 10 required to undertake the strategy, and greatly affect our 11 ability to achieve our requirements in both vehicle fleets.

12 Finally, the ground/air task-oriented radar that combines five current radar programs will enhance our 13 14 ability to command and control the marine air/ground task 15 force. This solution will allow us to support air defense, 16 air surveillance, counterfire, targeting, and air traffic 17 control missions through simple software swaps on a single piece of hardware, a much more expeditionary solution than 18 19 numerous offers of radar solutions for each mission. It 20 will increase our sensing and sharing effective across the 21 range of military operations, suborning missions in high-end 22 conflict, hybrid warfare, and low-intensity conflict; and 23 thus, enabling the command and control of our forces. 24 Thank you again for this opportunity. And I look 25 forward to your questions.

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| 1  | Senator Wicker: Thank you, sir. |
|----|---------------------------------|
| 2  | Mr. Dee.                        |
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STATEMENT OF THOMAS P. DEE, DEPUTY ASSISTANT SECRETARY
 OF THE NAVY FOR EXPEDITIONARY PROGRAMS AND LOGISTICS
 MANAGEMENT, OFFICE OF THE ASSISTANT SECRETARY OF THE NAVY
 FOR RESEARCH, DEVELOPMENT, AND ACQUISITION

5 Mr. Dee: Yes, sir, thank you. Chairman Wicker, 6 Ranking Member Hirono, distinguished members of the 7 subcommittee, thank you for the opportunity to testify 8 before you today.

9 Lieutenant General Walsh and I have submitted a joint
10 statement. So, with your permission, I'll be very brief
11 with my opening remarks.

General Walsh highlighted the challenging environment in which we operate and within which we expect to operate through the foreseeable future. The pace of technological innovation, the ubiquitous availability of information, and the shifting demographics and political and economic balance of the world's population requires more than ever a Marine Corps that is forward-deployed, expeditionary, and agile.

19 The Commandant has testified that this challenging 20 geopolitical environment is further complicated by the 21 fiscal environment and the budget pressures that face our 22 Navy and Marine Corps. And last week before the 23 subcommittee, Secretary Stackley observed that our 24 shipbuilding account represents only about 3.3 percent of 25 the defense budget in this time of diminishing defense

budgets relative to the national GDP. Well, as context for 1 this hearing, the total Marine Corps budget request for FY17 2 3 is \$24.9 billion, approximately 4.3 percent of the Nation's defense budget. And if you include all of the support the 4 5 Navy provides -- aviation, seabasing, manpower, et cetera --6 that percentage edges upwards to only about 7 and a half percent. And within those limited dollars, our Marine Corps 7 8 investment and ground modernization accounts allow only about \$2.4 billion, four tenths of 1 percent of the defense 9 10 budget, to equipment and modernize your Marine Corps. These 11 funds need to cover the range of ground force capacities, 12 from combat and tactical vehicles to artillery and missiles, enterprise IT, command and control, and radars, unmanned 13 14 aerial vehicles, personal protective equipment, small arms 15 and ammunition, generators, tents, and everything in 16 between, all while investing in the R&D to build a future 17 Marine Corps that will be inherited by the next generation and remain as the Nation's premier forward-deployed and 18 19 ready force.

So, with the need to stretch so few dollars over so many critical capabilities, the Marine Corps is specially conscious of every -- of making every dollar count and of the opportunity cost of making less-than-optimum decisions. The Marine Corps must strike a delicate balance between current and future readiness, with our future readiness to

fight and win somewhat dependent on the wise selection and 1 2 execution of our R&D and procurement projects. We cannot 3 afford to do everything we might like to do. The good news is that the current global and fiscal environments do not 4 5 only impose a threat, they also help to serve as a sometimes 6 uncomfortable catalyst for the Navy and the Marine Corps to think differently and to be innovative in our acquisition 7 8 efforts.

9 So, even while still in the early production stage, our ground/air task-oriented radar, G/ATOR, is introducing new 10 11 but mature and proven technologies to reduce cost and 12 improve performance as we move to operational test. Our ACV 13 program wisely took a pause, reevaluated capability 14 priorities, and heavily leveraged the benefits of 15 competition to provide the Marine Corps with a capable and 16 modern amphibious combat vehicle.

Now, being innovative means doing things differently, which sometimes results in unusual schedule or funding profiles. And we appreciate the support of your committee in understanding that, to be innovative and agile, sometimes our programmatics must also be agile.

Over the past few years, with the support of the subcommittee, the Navy and the Marine Corps team has been diligent in making difficult trades to balance risk within our modernization portfolio. It's incumbent now upon us to

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1 execute those decisions well so that your Marine Corps will 2 remain America's expeditionary force in readiness well into 3 the future.

Mr. Chairman, thank you for the support you and your committee have provided and continue to provide to our Marine Corps. And I look forward to answering your questions. [The prepared joint statement of General Walsh and Mr. Dee follows:] 2.3 

Senator Wicker: Thank you. And thank you very much,
 Mr. Dee, for emphasizing that we need to make every dollar
 count.

Let's just jump right into this top priority, which is the ACV. And, on your joint testimony, pages 4 and 5, you discussed this in some detail. Mr. Dee, you mentioned competition. The Marines expect to down-select one vendor in 2018. How is that going? And what can you tell us about the entire acquisition strategy and your confidence that the cost and schedule are under control?

11 Mr. Dee: Yes, sir. I alluded to this in my opening 12 remarks. ACV -- everybody's familiar with the history of EFV and with the history of MPC. And we were on a path for 13 14 an amphibious combat vehicle with some question still as to 15 what the priority capabilities were. We took a pause for 16 that. And, with that pause, we were able to reprioritize or prioritize and emphasize the capabilities that we most 17 required, the ability to effectively operate ashore once we 18 19 got ashore. We looked at mature technologies. We looked at 20 seven different vendors, five of which were interested in 21 competing for this particular program. And we down-selected 22 to two vendors in order to allow the competition to produce 23 our EMD vehicles. The idea behind that was -- is the 24 competition will cause price to come down, which it has, 25 significantly below our previous service cost position. So,

1 we were very successful in that. We've got a very abbreviated EMD -- engineering, manufacturing, development 2 3 -- phase, which will lead to testing -- development --4 developmental testing, as well as the beginnings of some 5 operational tactics development, which will allow us to do a 6 down-selection in FY18 and go forward then with a low-rate initial production and a production contract. Everything is 7 8 on track. We are at cost or below cost. We are a little behind in schedule now, because of the protest, which was 9 mentioned earlier. But, it's a fairly minimal delay that 10 11 we're experiencing with this. Both contractors leaned 12 forward during the period of delay to avoid losing much 13 time. No more than one-quarter. And the good news on this 14 is that the funding is still phased in the correct year to 15 support both the EMD phase as well as the procurement 16 portion, 18, to allow those initial contracts. So, we don't 17 expect any major significant delays as a result of the 18 program --

Senator Wicker: For the record, the pause was from when to when?

21 Mr. Dee: The protest was initiated in November. And I
22 believe it was cleared in early February.

Senator Wicker: And that was the reason for the pause?
Mr. Dee: Oh, no, sir. No. I'm sorry. I thought -Senator Wicker: My question was --

Mr. Dee: -- I thought you meant the - Senator Wicker: -- about the pause.

Mr. Dee: -- the -- so, we had a program that was 3 intended to begin RDT&E in FY15. We were still looking at 4 5 evaluating the value of high water speed. We took a pause 6 on initiating that program, which put our money a little bit out of phase, so we have RDT&E money in '15 for a program 7 8 that we didn't really initiate and award the contracts to 9 until last year. So, the pause was between the EFE, the 10 MPC, the original ACV concept. Took a pause on that to 11 reevaluate the requirements and what the priority was for 12 that before we initiated the program and led to the RFP and 13 the competition. So, that was back in 2015.

14 Senator Wicker: The 1.1 relies on commercial off-the-15 shelf wheeled vehicles that will rely on connectors to get 16 ashore, and then, gentlemen, you say, on page 5, "Phase 2 17 will examine potential high water speed solutions."

18 General, would -- what's the reason for this deferred 19 objective of high water speed?

General Walsh: Chairman, you know, I think, going back to what Mr. Dee was saying about, "Why do we feel like we're in pretty good shape with the program, itself?" -- is -- one of the things is, when we made that decision on the ACV, to go with a wheeled vehicle, we went with a capability that was nondevelopmental. So, using vehicles that were part of

1 the original MPC program, we started with those. So, when 2 we went with those, those vehicles were not designed to go 3 ship-to-shore. Those were vehicles that were designed to go 4 shore-to-shore, with an objective capability to go ship-to-5 shore of 12 miles. So, that capability in the 1.1 was to 6 provide a capability that would give us more combat power once we got ashore, and, as you said, that they would come 7 8 from connectors. We still have our assault amphibious vehicle capability of 392 vehicles in that program that 9 10 we're going to the AAV upgrade program. Those are our main 11 capability to get the marines ashore while we develop the 12 ACV 1.1 capability, and then see how that goes to -- as we 13 go forward into the second increment, or the 1.2, which 14 would hopefully have the ship-to-shore capability while 15 still maintaining our intent to try to get to a high water 16 speed down the road.

Senator Wicker: Are you certain we'll go to a 1.2, General?

19 General Walsh: Right now, I think what we've got is --20 the capability we've got right now is a personnel vehicle. 21 So, the 1.2 would come in with a command-and-control vehicle 22 and a recovery vehicle capability. So, we're -- we'll go to 23 some type of vehicle that will bring those capabilities in, 24 and then what type of requirements -- we still have to 25 develop our requirements documents for what those would be.

Senator Wicker: So, it might be a 1.1 or it might be what?

| 3  | General Walsh: It could I guess it could be a               |
|----|-------------------------------------------------------------|
| 4  | follow-on to the 1.1 or it could be a 1.2. It would be a    |
| 5  | second increment that would bring in those other            |
| 6  | capabilities, like a personnel variant or recovery variant  |
| 7  | or a C-2 variant, and potentially different capabilities    |
| 8  | within it to give it more ship-to-shore capability.         |
| 9  | Senator Wicker: When will the decisionmakers know on        |
| 10 | that?                                                       |
| 11 | General Walsh: I think we'll probably be working those      |
| 12 | requirement documents probably in about 2018 would the      |
| 13 | time period we'd start doing that. And I think about 2019   |
| 14 | would be the time we'd starting working in that into the    |
| 15 | program to start putting requests out there for when we'd   |
| 16 | start to need those vehicles.                               |
| 17 | Senator Wicker: Thank you.                                  |
| 18 | Senator Hirono.                                             |
| 19 | Senator Hirono: Thank you, Mr. Chairman.                    |
| 20 | You've already been asked some questions regarding the      |
| 21 | ACV, which is your highest ground modernization priority.   |
| 22 | And we know that the Marine Corps has had a mixed record    |
| 23 | developing a new amphibious vehicle. And the first attempt, |
| 24 | the expeditionary fighting vehicle, EFV, cost the Marine    |
| 25 | Corps \$3 billion before it was canceled in early 2011      |

because it demonstrated poor performance during operational testing. Can you explain to this committee how the ACV effort this time will be different and what steps the Marine Corps has taken to ensure that we don't have another failed program in this your most important modernization priority? General? Secretary?

General Walsh: I think the thing that probably would 7 8 be different at this point, Senator Hirono, would be that we have been putting so much focus on the high water speed in 9 10 our expeditionary fighting vehicle program and then in our 11 amphibious combat vehicle program. We've kind of taken that 12 off the table with the ACV 1.1. And even the 1.2, the one that would be the follow-on variant, we don't believe we're 13 14 going to get the high water speed with that. The decision 15 point for us to go to a high water speed, we think we're 16 going to use about the next 10 years, til 2025, to continue 17 to look at that on whether, in the longer term, what we'd be calling probably a ACV 2.0, beyond the 1.2, might be a time 18 19 period where we'd be looking at that vehicle coming in, 20 following when our AAVs start to run out, in about 2035.

So, I think the thing that would be different here is, is that taking that high water speed requirement, staying with something that we think is much more achievable in the 1.1 program, and then seeing where that -- the 1.1 program gets us for follow-on development into the 1.2 program.

1 So, I think what we've done is, we've reduced a lot of that risk by trying not to put the high water speed. And 2 that's where we came into the tradeoffs with high water 3 speed by taking off protection, lethality, those kind of 4 5 things that we weren't willing to trade off once we got 6 ashore to get -- just to get to the high water speed. We realize, at this point in time, the technology is not there. 7 8 Senator Hirono: No.

9 General Walsh: So, we kind of limited that as part of 10 the requirement that was stressing the program.

11 Senator Hirono: You probably could make that kind of 12 comment with regard to any of our acquisition programs, because the more requirements we place in terms of design 13 14 survivability and all of that, that can really increase the 15 risk of the acquisition actually performing. And that's 16 what happened, apparently. And so, thank you for noting that. And I hope, going forward, that we really make a very 17 accurate assessment as to what we really need from these 18 19 programs.

As far as the joint light tactical vehicle program, in light of the delay due to the protests that occurred -- and I don't know whether these protests are becoming a common thing and whether you just factor in the delays as a result of the protests so that we -- you know, we don't come and ask you, "Well, what's -- what has the delay cost?" But, do

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you feel confident that the program is now on track and will still meet the development and testing timelines? Because you are going to acquire a lot of these vehicles.

4 Mr. Dee: Yes, ma'am. In regards to protests, we don't 5 account for the potential protest in our schedules, 6 generally. We try to establish our selection criteria so that it is very clear to the vendors so that we are at 7 8 minimal risk of protest. But, that doesn't stop protests 9 from happening. So that I think the Department gets probably about 2,000 per year, out of tens of thousands of 10 11 contract awards. So, we don't account for protests up 12 front.

13 The impact of the protest definitely affects the 14 schedule. So, I mentioned, in an ACV, because the dollars 15 were phased, it's a fairly minimal impact that we've got in 16 the ACV program. JLTV is a little bit differently. So, 17 JLTV, the same scenario -- it was a little different, in terms of the process of the protest, in the fact that it 18 19 went to the Court of Federal Claims as well as to the GAO --20 but, in terms of the impact, the -- that 90-day delay 21 cascaded into a further delay in testing because of test-22 range availability and testing schedules. So, a 90-day 23 delay grew into about a 6- or 8-month delay just because of, 24 now, the difficulty in rescheduling the test phase that we 25 were going to do, which then impacts the decision date for

the full-rate production decision, which, in turn, puts our funding out of phase for the JLTV program for our production decision for JLTV, which then allowed us to take a look at the time difference between the completion of testing and that full-rate production decision, and it ended up stretching out IOC about a year. A 90-protest period resulted in about a year delay in achieving IOC.

Now, not all of that is directly related to the protest
itself, that 90-day protest, but the cascading effect --

10 Senator Hirono: Yes.

Mr. Dee: -- of the protest, and then some decisions we made internally to be able to better address any potential changes that come out of the testing prior to FRP to make sure that we're giving the first battalion equipped a capable, ready vehicle to go out.

16 So, we -- so, the impact on JLTV is about a year -- a 17 little over a year, actually, for IOC. That came out of a 18 90-day protest period.

19 Senator Hirono: Well, thank you for explaining how a 20 short protest period can have the cascading impact, as you 21 say. So, the idea is to minimize any kind of a potential 22 for protest, even though we know that they will occur, 23 because we're talking about a lot of money and contracts at 24 stake.

25 Mr. Chairman, do you mind if I ask one more question?

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1 I --

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Senator Wicker: Please go ahead.

3 Senator Hirono: Thank you so much.

4 In light of the evolving security -- this is for 5 General Walsh -- security environment and the unanticipated 6 global challenges -- and you did note in your written testimony when you stated that, "If one characteristic 7 8 defines the future operating environment, it is uncertainty" -- do you believe that the Marine Corps has the force 9 structure necessary if called upon for major combat 10 11 operations?

12 General?

General Walsh: Senator Hirono, I guess I would say 13 14 that we are prepared for today, and we are -- we're ready to 15 fight in any operation we may have to fight. But, as you 16 project out into the future, what the future operating, as -- environment, as we call it, I think, as you take a look 17 at the threats we're seeing and how quickly -- I think a lot 18 19 of it's the technology we're seeing today, and the 20 proliferation of the technology, how quickly our adversaries 21 can bring technology in. A lot of it's the things that we 22 view very beneficial to us, that we can bring in plug-and-23 play, rapidly bringing those capabilities. They're able to 24 do the same thing. And I think, while we, on the Marine 25 Corps, have been focused very much over the last 14 years on

1 combat operations in Iraq and Afghanistan, our adversaries 2 have continued to grow their capabilities. So, as we look 3 at our peer competitors, countries such as Russia or China, 4 you can just rapidly see what they're doing with those 5 capabilities that are certainly keeping pace with us, and 6 outpacing us in many capabilities.

But, also at the lower end. I think some of the things 7 8 you're seeing on the ground in Syria today -- capabilities like antitank guided missiles, where, before, we were very 9 concerned about IEDs, now those kind of capabilities that 10 11 we're seeing for complex attacks with those type of 12 capabilities, proliferation of unmanned aerial systems, 13 drones, that are out up there now to be able to see our 14 forces, target our forces, and bring in pretty sophisticated 15 capabilities pretty quickly, that what we're seeing is, we 16 are having to take a look at our force structure -- we 17 talked the -- before, on the force structure review that the Navy was doing with its ships, its force structure 18 19 assessment at the last hearing. We're doing the same thing. 20 In fact, I just left the Commandant, with all the senior 21 leadership, just before I came over here, and we're 22 conducting our force structure assessment, and it's all 23 projected into that future operating environment. And we 24 see this as probably the most complex operating environment, 25 both at the lower end of the spectrum and certainly at the

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1 higher end of the spectrum, that we have not really seen since the Cold War, these types of capabilities, when we 2 start getting into precision weapons, ability to sense the 3 4 area, and also working in the electronic magnetic spectrum. 5 Senator Hirono: Thank you --6 Senator Wicker: Thank you. Senator Hirono: -- very much, Mr. Chairman. 7 8 Senator Wicker: Thank you, Senator Hirono. 9 Senator Rounds. 10 Senator Rounds: Thank you, Mr. Chairman. 11 General Walsh, I just want to walk my way through this 12 a little bit. And please help me with the concepts behind getting these marines from a ship to the shore. And I 13 14 understand that, first of all, we've got the AAV, which is 15 40 years old. And I understand that -- I mean, it's got to 16 be replaced. It's got a 2-mile capability, basically, 17 coming in, as I understand it, from ship to shore. And then right now we're talking about the ACV, the -- and the 18 19 variant is the 1.1, to begin with. My understanding is, is 20 that the 1.1 that you're looking at today has very limited 21 amphibious capabilities, but you think you can begin with 22 that one with adding a connector to it to get it from the 23 ship to shore. Is that correct? Can you walk us through 24 that a little bit?

25 General Walsh: Yes, Senator. The first thing I would

1 say is, the AAVs -- we've got an amphibious assault vehicle upgrade program. So, we've got that going on right now. 2 3 And we just got our first vehicle in the EMD phase. It just came out -- and we went out there and -- went out there a 4 5 couple of weeks ago and looked at it -- which completely 6 really refurbishes that vehicle and brings in a lot of good 7 capabilities to it. So, it's basically pretty much a new 8 vehicle.

9 Senator Rounds: So, you would use the AAV -- the new 10 model AAV --

11 General Walsh: Right.

Senator Rounds: -- with the upgrades, to get a marine to shore.

General Walsh: That is our primary -- to meet our 2-MEB amphibious assault requirement, the current AAVs that we're upgrading will provide that capability.

17 Senator Rounds: And when they do that, will that have a capability greater than the 2-mile capability today? 18 19 General Walsh: The 2-mile -- I think if we looked at 20 that, is that -- you know, we've seen the AAV swim in from 21 12 miles. Now, a lot of that has to do with sea state, what 22 the conditions are, how long those marines under -- on the 23 -- and that's one of the reasons we want to go faster. One 24 is maneuver, to maneuver away from the threat; but, the 25 other thing is how long marines in higher sea-state

conditions can live and survive -- not survive, but, you
know, be an effective fighting force when they come out of
them when we get ashore. So, I would say, 2 miles, we're -we can easily exceed that. But, we're not out to where we'd
like to be. The ACV, again, would be a vehicle that would
be coming ashore as the follow-on echelon, not the initial
wave coming in.

8 Senator Rounds: Now, this is a 1.1 variant --9 General Walsh: This would be the 1.1 variant. 10 Senator Rounds: All right.

11 General Walsh: Now, the other thing I would say with 12 that is, because we were buying a nondevelopmental 13 capability, that we put on the requirement that the vehicle 14 would just be a shore-to-shore capability, because that's 15 what the companies really had -- you know, had been 16 designing for. What we hope to see as we get these 32 EMD 17 vehicles and get out there and start working with them, getting them with our marines, and getting them in the 18 19 operating environment, we think they're probably going to do 20 a lot better than just shore-to-shore. So, not for a 21 requirement to meet our requirement for the 2-MEB joint 22 forcible entry, but, if they do better than that, then we're 23 really on a good step to start moving for that ACV 1.2 and 24 follow-on capabilities.

25 Senator Rounds: Now, share with us a little bit about

1 the 1.2 and the differences between the 1.1 variant and the 2 1.2 variant. Would the 1.2, under current plans, be fully 3 amphibious?

4 General Walsh: My feeling right now -- we haven't done 5 that requirements document yet. Like I said, I think we'd 6 be developing those requirements documents '18-'19, bringing the vehicles in probably in around '24 or so. But, the 7 8 intent right now would be, they're going to be amphibious. And I think what we're going to be doing between now and 9 10 then is working with the 1.1 vehicle. And one of the things 11 we've got going on is working with the Office of Naval 12 Research. And we've gotten money into the program to continue to develop the -- increase the speed of the 1.1 13 14 variant to make it better, to be able to operate at sea and 15 come from further distances. We think that will then roll 16 into the 1.2 capabilities down the road.

Senator Rounds: Okay. But, in both cases, we're not talking about it replacing the new variant of the AAV. Or are we?

General Walsh: No. Those would be the -- those four that we have -- when we bring in the 1.1, they're additional capabilities. The 1.2 variant capabilities would then -right now our plan would be -- those would actually be going to the Reserve forces as extra vehicles, again, replacing some of our older-model AAVs.
Senator Rounds: What would be going to replace the older-model AAV?

3 Senator Wicker: The 1.1 or 1.2?

4 General Walsh: It would be the 1.2s.

5 Senator Rounds: Okay.

General Walsh: The 1.1 right now -- I'm sorry -- so,
the 1.1 is not intended to replace the AAVs from a ship-toshore capability.

9 Senator Rounds: Okay.

10 General Walsh: It would be the 1.2 coming in to start 11 bringing in that capability.

12 Senator Rounds: So, you --

13 General Walsh: Ship-to-shore.

14 Senator Rounds: So, you would eventually have --

15 you've got a vehicle right now which is being upgraded, and 16 that is the AAV.

17 General Walsh: Right.

18 Senator Rounds: And that's going to be the one that 19 our marines are going to leave a ship and they're going to 20 make it to shore on.

Number two, you've got a 1.1 variant, which is -- which will be a follow-on, but it will be the vehicle which will move marines once they are on shore. But, it does have a mobility or a connector that gets it to the shore.

Then you've got a 1.2. And a 1.2 will have full

1 amphibious capabilities, or at least that's the plan. It'll come down later. But, then which one of those three -- the 2 current AAV, the 1.1, or the 1.2 -- will then be shipped to 3 4 the Reserve units? 5 General Walsh: Right now, the current plan we have is, 6 it would be -- the 1.2s would be going into the Reserves. Senator Rounds: So --7 8 General Walsh: That's a follow-on decision, though, that could be changed, and it could be the 1.2s going into 9 10 the Active Force and the AAVs going into the Reserves. 11 Senator Rounds: Okay. 12 Mr. Chairman, thank you. 13 Senator Wicker: Thank you very much. 14 Senator Rounds: That did help. Thank you. 15 Senator Wicker: Vice President Kaine. 16 [Laughter.] 17 Senator Wicker: I'm sorry. 18 Senator Kaine: Oh, boy. 19 I -- General Walsh, your testimony really interested me 20 -- your oral testimony, right at the beginning. You used a 21 phrase -- and I sometimes act like I know what military 22 folks mean when they say things; and I'm just looking smart, 23 and I don't really know. And I want to make sure I 24 understood this one. I think you said, as you were 25 describing the adversarial environment that we may face,

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1 that adversaries will use COTS, which I think was commercial off-the-shelf, technologies to out-cycle our acquisition 2 3 process. And I thought that was an interesting phrase. So, what I thought you probably meant by that was that there's 4 5 so much off-the-shelf, you know, technology that's available 6 that, while we're doing an acquisition process to be really careful about getting 100-percent solution, our adversaries 7 8 are able to just buy off-the-shelf 80-percent solutions and 9 maybe race ahead of us, in terms of some of their capacity. 10 Could you elaborate? Did I -- do I interpret that right? 11 Could you elaborate a little bit more on that worry and how 12 we need to deal with it? Because we're going to be doing 13 some acquisition reform stuff as part of the big NDAA, and I 14 want to make sure, if we're thinking about acquisition 15 reform, we're thinking about this problem.

16 General Walsh: Sure. No, I think, Senator Kaine, that it comes along with rapid prototyping and how we can go 17 faster with our acquisition cycles and our programs. You 18 19 see a lot of these things, like these unmanned aerial 20 systems, which are commercial off-the-shops -- -shelf. You 21 can go into Walmart and buy those things. Those kind of 22 capabilities, we're seeing right now out in Syria and Iraq 23 that are being used to target, you know, coalition or our 24 own forces. So, those are the kind of things that are 25 coming in very quickly.

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1 When I look at the marines' capabilities, when I look at the technology that we operate in our command operation 2 3 centers, for example, our command operation centers are intense, but we're able to bring technology in very quickly. 4 5 So, over the last 14 years, we've watched technology be 6 brought into our tents and rapidly bring that capability in, where a young person today looking inside that tent would 7 look at it and go, "Wow, this is pretty high-tech." Now, go 8 aboard our amphibious ships. Trying to bring that type of 9 10 technology onto those ships that may just get a midlife 11 upgrade, or periodically come in for long-term upgrades to 12 their capabilities, that technology isn't flowing as fast 13 into those capabilities.

When I was flying F-18s, and I got into an F- -- our 14 MIG-29 for the first time, in the Cold War, and I looked 15 16 inside at the technology of the MIG-29 for the first time. You know, we watched it turn fast, fly fast, and I was 17 really concerned that this is going to be a better airplane 18 19 than we had. When I got inside the cockpit and looked 20 inside the cockpit and looked at the technology, it was 21 something that I thought that I was flying back in the F-4. 22 It was way behind, from a technology standpoint.

Now as I take a look at the F-35 coming in, and looking at that technology, now you look at what the Chinese variant, that J-20 that looks very much like an F-35 -- on

the outside, looks like the F-35. Is it like the MIG-29, or are they going to be continuing to upgrade their technology faster than we can, that, in 5 years from now, 10 years from now, their technology is better than ours, that they're able to spiral that in into their programs faster than we can? Senator Kaine: Did -- anything to add, Secretary Dee? Or is --

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Mr. Dee: Sir, so --

9 Senator Kaine: Especially in terms of advice for us as we're thinking about acquisition reform issues that kind of 10 11 -- you know, what would you tell us to pay attention to? 12 Mr. Dee: So, I believe we all need to be agile, on 13 both sides of the river. We need to be able to take a look 14 at decisions, decide what our requirements are, reduce the 15 requirement cycle quickly. We need to look at innovative 16 ways to do acquisition. We need to look at open 17 architectures, when appropriate, which is not always appropriate, but when appropriate, so that we can quickly 18 incorporate new technologies. So, that involves standards 19 20 and interface standards, mechanical, electrical, logical 21 interface standards that we need to be able to define and 22 have access to the intellectual property to allow us to do 23 that with. And we need the agility on the funding side, as 24 well. So, it's very difficult, if you're trying to 25 incorporate a new technology, where you're looking at

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POMing, programming, 4-year requirements. We're beginning to do -- we're well through '18 already. So, if we had a new requirement today, we'd really be looking at '19. Incorporating that, getting it through our process within the building, within the executive branch, and getting it over here for execution dollars in FY19. A 3-year budget cycle is not helpful for being agile.

8 What we are doing within the Department -- and the General alluded to it, in terms of prototyping. So, we've 9 10 requested in '17, over here, \$55 million to support our 11 rapid prototyping initiative, which will be a pot of money, 12 flexible funds that are not defined to any specific project, but will allow us to look at priorities as they evolve 13 14 during the course of the year, and select prototyping 15 projects that we can then give to the fleet, that we can 16 allow the marines to play with, that we can determine the 17 usefulness of the technologies to see if the requirement -if the capability that we might be able to prototype very 18 19 quickly is good enough to meet the need for the General to 20 make a decision on.

21 So, there are several things we need to do to be more 22 agile and be able to turn more quickly.

- 23 Senator Kaine: Great. Thank you.
- 24 Senator Wicker: Thank you, Senator Kaine.
- 25 Senator Kaine: Thanks, Mr. Chair.

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Senator Wicker: Senator Tillis.

Senator Tillis: Thank you, Mr. Chair.

General Walsh, thank you for your distinguishedservice. Mr. Dee, thank you also for your service.

5 I want to go back to the acquisition piece. You know, 6 I believe that you're doing everything you can to get the capabilities that you need to fulfill the requirements and 7 8 take the fight to the bad guys. So, I want to talk a little 9 bit more about the agility question, but at a -- maybe a different way, which could be difficult for you, Mr. Dee, 10 11 but it's to kind of put a mirror where you're standing right 12 now and talk about constraints that we've placed on the 13 process, maybe well-intentioned at some time, but, over 14 time, a hairball of constraints and requirements that --15 could you describe for me -- and you could pick any 16 acquisition program you want -- when I'm talking to the 17 Army, I like to talk about a handgun and a 600-page RFP. But, in this particular case -- only 39 pages of which, by 18 19 the way, are specifications -- in this particular case, when 20 we're talking about some of the delays that some of the 21 other members have discussed, could you give me an idea of 22 how much of that are changing requirement, budget changes 23 over time that affect you or move things to the right and 24 kind of get things out of cycle? Those are things you have 25 to deal with. And factors that are largely driven by

direction from the Congress, either constraints or other things that we should look at to potentially reform so that we can help you be more agile, get inside the decision cycles of the enemy, versus what we've heard here, that China could literally be to a point to where they could get inside our decision cycles on our joint strike fighter?

Mr. Dee: Yes, sir. So, there's lots to talk about 7 8 within that question. So, at a high level, we've had -- and 9 you have witnessed, and we have witnessed -- difficulties over the years, over decades, with various acquisition 10 11 programs. Generally speaking, each one of those has 12 resulted in a fix being put in place either by ourselves 13 through policy, through regulation within the FAR, or 14 through statute. So, when those get put into place in order 15 to fix a problem, that generally results in additional 16 oversight requirements, it generally results in additional 17 bureaucracy, it generally results in additional steps that a program manager needs to get to, to get through, in order to 18 19 be able to get to a decision. So, that's at a very high 20 level.

21 There's --

22 Senator Tillis: Would you say that it would be common 23 or uncommon, at that point in time where you find that 24 constraint that's going to potentially delay -- would it be 25 common or uncommon for you all to come back before this body

1 and say, "Change the rules so that we can be more 2 efficient"? Does that happen?

Mr. Dee: Yes, sir, it happens every year. We submit 3 legislative proposals. We sit down with your staff from --4 5 Senator Tillis: But, does it have -- I mean, is it 6 more a perspective -- is it something that could have a meaningful impact on the existing processes, or is it 7 8 something so we continue to slide? Is there any way that we could be more resilient, more agile, in terms of providing 9 relief so that the things that are going to slide, we get 10 11 ahead of the curve, versus make it less worse or fix it in 12 the future? I'm trying to get an idea --

13 Mr. Dee: Yes, sir.

Senator Tillis: -- of how we become more resilient in 14 15 the way that we refine the acquisition process.

16 Mr. Dee: So, from my perspective, sir, generally speaking, the professionalism and the competencies of our 17 program managers is the key. So, providing support to the 18 19 acquisition workforce, providing folks with the authorities 20 to run and the oversight to ensure that, if they run, they 21 can be held accountable for things. Generally speaking, I 22 believe less is better, in terms of the -- whether it's 23 statute, policy, or regulation that's put in place over 24 them, but holding them accountable for outcomes. 25

So, I am a fan of reducing the oversight, the

regulations, but then holding the executors accountable, and doing that, you know, through the appropriate bodies, service acquisition executive, the defense acquisition executive --

5 Senator Tillis: Well, I'd -- because I want to ask a 6 real brief question before I get the gavel -- but I'd like 7 to follow up more and maybe find some case examples that are 8 instructive to us that go beyond maybe some of the requests 9 you've made.

10 General, we had a Emerging Threats committee hearing 11 yesterday, and one of the things we're talking about here 12 are big rocks that are going to be used for -- I mean, they can be used for a variety of purposes, but largely to make 13 sure that we can match what have been more conventional 14 15 threats. What work are we doing, and what confidence level 16 do you have, that we're also better preparing our men and women to fight the kinds of fights that we're seeing that 17 are small autonomous units? And do we have enough attention 18 to that, in your opinion, versus what we've talked about 19 20 here?

General Walsh: You know, I think an example that would kind of maybe tie to that is that we are -- our operating concept, expeditionary force 21, relies on distributed and dispersed operations. We think we can maneuver to our advantage by being more distributed and dispersed. C-2

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precision fires, overhead situational awareness will allow
 us to maneuver faster than the enemy.

3 Where I think some of this is changed, though, that I would tie this in, and it kind of comes back to rapid 4 5 prototyping and how we can move faster, and that area is our 6 aircraft. Our aircraft, if you -- or trying to take -approach with our ground vehicles the same way we have with 7 8 our aircraft. When we started getting threats on our aircraft -- our helicopters, our fixed-wing aircraft --9 against infrared missiles, we quickly put on capabilities to 10 11 defeat those type of missiles. Now we're seeing the threat 12 on the ground changing, becoming a much more sophisticated threat on the ground. What we've continued to do is up-13 14 armor our capabilities on the ground, put more armor on 15 them. We've got to start thinking more with the higher 16 technology capability, with vehicle protective systems, 17 active protective systems that can defeat anti-guided tank munitions, RPGs, top-down capabilities that we're seeing 18 from threats on our vehicles, along with soft capability, 19 20 which is the technology our aircraft have. We have both 21 hard and soft kill on our aircraft. We need that same type 22 of technology on our vehicles. So, as you project where the 23 threat is going, that's where we've got to move quicker in 24 that area with our vehicles.

25 Talking about the rapid prototyping that Mr. Dee talked

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1 about is -- it could take us a long time to develop active 2 protection systems on our vehicles. And we could be here 3 for a long time. The threat continues to move ahead of us. So, we're working very closely with the Army to develop 4 5 active protection systems. We're going to go out and try to 6 buy or lease some trophy systems that are out there, working with the Army, and we're going to put those on our M1A1 7 8 tanks. Take that, use it, see how it works. As the Army is doing the same thing on their Stryker and M1A2s, use that 9 10 and see how it works. Learn from that and then see whether 11 we buy that or buy something else, but at least we learn 12 from it, rather than slowly developing a program over time. But, I think that technology, just like on the aircraft 13 14 -- we saw our aircraft and helos getting shot down in Iraq 15 and Afghanistan. We're going to have the same problem if we 16 don't get our -- you know, out in front of this technology on the ground side also. 17 Senator Wicker: Thank you, Senator Tillis. 18 19 Senator King. 20 Senator King: Thank you.

I've never heard "agile" used so much in a hearing before, and I can't help but be reminded of my high school football coach, who said he wanted us to be agile, mobile, and hostile.

25 [Laughter.]

Senator King: So, maybe that's a good motto for what
 we're talking about today.

A couple of, just, short questions. I noticed the light tactical vehicle is joint. I presume that means you're working with the Army on that? That's --

6 Mr. Dee: Yes, sir. In fact, the Army is the lead 7 service on the JLTV.

8 Senator King: Okay. So -- and, I mean, that's 9 something, I think, that's very important. I'm glad that's 10 happening. We can't be developing slightly different 11 versions of the same weapon systems as between the services. 12 So, that's a plus.

Now, a dumb question about the ACV and the AAV. What's the difference? They look the same to me. They look pretty close. And you said you're upgrading the AAV, and it's going to have greater capability. What is the ACV going to have that the AAV doesn't have? One has treads, and the other has --

Mr. Dee: Yes, sir. One has treads. The other is wheels. One is -- well, it's 40 years old, but it was really built with that seagoing requirement in mind. It's -- beyond being an old vehicle and being difficult to maintain and such, it doesn't have the mobility characteristics ashore, or the efficiency ashore, or the protection level ashore, specifically for underbelly

1 protection and things like RPGs and --

2 Senator King: So, basically, the ACV is an -- is an 3 upgraded version of the --

Mr. Dee: Well, the ACV, the requirement that we're meeting with the ACV is really for the ground mobility more than the water mobility capability. So, it's focused on ground maneuver more so than it is on amphibious capability at the moment. And it provides a very much improved protection level for the operators.

10 Senator King: So, the idea is that the AAV will be 11 used to get the marines ashore. Would they then transfer 12 into the other vehicle and --

13 Mr. Dee: Sir, if I can --

14 Senator King: -- go from there?

Mr. Dee: I'll ask the General to correct me, here.
Senator King: I know you've been over this, I'm sorry,
but --

18 Mr. Dee: So, to try to explain it a different way.
19 So, there's -- we have a requirement for 10 battalions of

20 lift --

21 Senator King: Right.

Mr. Dee: -- right? -- at the moment. All of those, at the moment, are fulfilled by double-AVs, by AAVs. The plan for the future is, we're upgrading four battalions worth of double-AVs, 392 vehicles, as the General discussed, to meet

four of the 10 requirements. The ACV 1.1 is going to provide lift and follow-on echelon for two battalions of lift. And the ACV 1.2, when that comes about, is going to provide four, so it's going to replace --

5 Senator King: So, it's a phased --

6 Mr. Dee: It's a phased replacement plan. So, ultimately, leading into -- currently within the strategy, 7 8 leading into the 2030s, we have four battalions' worth of double-AV with the survivability upgrades, and we have six 9 10 battalions of AAV 1.1 and 1.2. A decision down the road, in 11 the '20s, is, When do we replace those four battalions' 12 worth of double-AVs? And that depends largely on the 13 outcome of the capabilities that we develop in ACV 1.1 and 14 what we're calling -- in 1.2 -- and what we're calling 2.0, 15 looking at future capabilities in the requirements perhaps 16 for high water speed or other additional capabilities that 17 will allow us to replace those last four battalions.

18 Senator King: Okay. To move from the particular to 19 the more general. You mentioned the '20s. We had a hearing 20 the other day on the Navy. And we've got a bulge of 21 acquisition coming. It's the pig in the python. It's the 22 Ohio-class submarine, it's the long-range strike bomber, 23 nuclear modernization, deployment of the F-35 -- are all 24 hitting at the same time. And the procurement, just the 25 Ohio-class, as I recall, Mr. Chairman, adds something like 6

1 billion a year to the acquisition budget during this period 2 of the late teens into the '20s. And that means we've really got to think hard about, (a) what we're procuring, 3 and (b) how we're doing it. And I think Senator Kaine 4 5 mentioned something about 80-percent solutions. I mean, 6 we've really got to think about, How do we get at -- and I'm worried, not only about the price part, but about the timing 7 8 part. And it -- we've got to be able to do these things 9 more quickly. And we want you to help us. And you don't 10 have to do it now, for the record or -- we are going to be 11 doing something about procurement reform in this bill. The 12 Chairman -- Chairman McCain has made it clear that that's something he's interested in. Now is the time for you guys 13 14 that are doing this on a daily basis to tell us how we could 15 improve this system, both in terms of how -- what we do and 16 in terms of how the whole system works. Because we've got to be able -- we're facing a really serious crunch when the 17 Ohio nuclear -- the Ohio, the nuclear modernization, and the 18 19 long-range strike bomber come into the budget cycle, and we 20 don't want the Marine Corps to be left behind. But, you're 21 one part of this procurement process. And, to the extent 22 you can write us an essay on -- If you started with a blank 23 sheet of paper, how would you design the weapons procurement 24 system? I think that would be very helpful. Thank you. 25 Thank you, Mr. Chairman.

inank you, ni. chainan

| 1  | Senator Wicker: Well, if you'd like to start, we'll        |
|----|------------------------------------------------------------|
| 2  | leave the record open for a few days, and you can start on |
| 3  | that essay.                                                |
| 4  | [Laughter.]                                                |
| 5  | Senator Wicker: Because Senator King has opened a very     |
| 6  | important subject.                                         |
| 7  | [The information referred to follows]:                     |
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Senator Wicker: Let me just conclude, here, on behalf
 of my Ranking Member and me.

Tell us about Asia-Pacific rebalance. Specifically, the marine air/ground task force operating from Darwin, Australia, and the plans for additional force in Guam, and touch on the marine air/ground task force at -- rotational, the idea of a rotational 2500-person presence.

8 General?

9 General Walsh: The 2500-person presence, Chairman, in
 10 Darwin, the one in --

11 Senator Wicker: Right, in Australia, yeah.

12 General Walsh: -- in Australia, all right. We're still building up towards that 2500 number in Australia. 13 14 All part of the -- our reposturing or rebalancing to the 15 Pacific as we move forces around. I think, you know, in 16 past years, we've been focused very much on the Korea and --17 Peninsula forces up in Japan. So, with that rebalance moving forwards under DPRI down towards Guam is part of 18 that, and we're in the middle of that transition, or start 19 20 -- I shouldn't say in the middle, but progressing along that 21 timeline to move our forces to Guam, some of them from 22 Japan.

The other piece is -- as we look at that landscape of where we need to be, one of the pieces was trying to put more presence down further south. So, you're seeing us do

more training exercises with countries, you know, down -like the Philippines, down in that area. And part of it
also is with our -- building our partnership, or continuing
our partnership, with the Australians, down in that part.
All part of the Pacific, all part of being in different
areas and trying to get presence in different locations
throughout the area operations.

8 Senator Wicker: And what about that timeline? Could 9 you be a little more specific? You say we're really more 10 toward the beginning of that --

General Walsh: I would say probably in the Guam part.
You know, we're still in the early stages --

13 Senator Wicker: But, what are the specifics --

General Walsh: -- of the DPRI piece that we're still 14 15 -- I mean, some of these pieces are some of the things that 16 are still being negotiated with the Government of Japan as part of the Futenma rule, a placement facility, moving some 17 of our forces off of Okinawa to be able to reposition some 18 19 of those forces down towards Guam. Some of those decisions 20 are still going on with negotiations with the Government of Japan. With that replacement facility from Futenma, that's 21 22 a player in some of these pieces of moving the forces down 23 to Guam. But, I think we're on track, on schedule. I'd 24 have to get back with you on the exact --Senator Wicker: Well, just put that --25

| 1  | General Walsh: schedule that we're doing.        |
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| 2  | Senator Wicker: on the record. That'll be great. |
| 3  | [The information referred to follows:]           |
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Senator Wicker: Senator Sullivan.

Senator Sullivan: Thank you, Mr. Chair.

3 And I actually want to follow up on -- General, good to see you, sir -- and follow up on some of the questions that 4 5 we were asking just on timeline on the rebalance. But, 6 first -- and I apologize if it's already been asked -- but, you know how the -- the redeployment of marines from Okinawa 7 8 to Guam, to Hawaii, to Australia has a dispersal effect, as 9 you know, General, in terms of dispersing the forces throughout the Asia-Pacific, but it's also a big Asia-10 11 Pacific theater. I know that the PACOM Commander has 12 testified to this, but are there concerns that our strategic lift capabilities are not, kind of, in line with what our 13 14 strategic needs are? Meaning, as we look at moving marines throughout the Asia-Pacific, out of Okinawa, that we lack 15 16 the strategic lift capability to respond to a crisis in a 17 moment's notice, which is what the Marines are known for throughout their history, in a way that we have the ability 18 19 to do that, whether it's with shipping, whether it's with, 20 you know, C-17s? Does the Marine Corps remain concerned 21 about this issue that the PACOM Commander has indicated is a 22 strategic issue we need to be concerned about? And then, 23 how do we address it?

24 General Walsh: I think -- you know, I think the
25 Pacific area of responsibility -- it's obviously a -- it's a

big area. It's a maritime area. So, strategic lift, when you get in an area like that, that's -- it's so wide and so spread out, as it is -- strategic lift is going to be a critical thing to be able to conduct the operations that go on.

6 I think, from an amphibious shipping standpoint, obviously we've got our requirement for 38 ships. And right 7 8 now we're at 30. We're on a plan to start building back up 9 to that capability. So, I think, as long as we keep the 10 shipbuilding plan that we're on, with our LHA-7 and -8, and 11 continuing the LHA program along with the LXR replacement 12 program, we're going to be on a good track on our amphibious 13 ships.

Now, to be able to meet the COCOM demand, we know that number is much higher than the 38 requirement we have. But, I think building towards that amphibious warship capability, we're on a path to do that in the 30-year shipbuilding plan. From a -- from the other asset strategic lift that

we've got, we've got Diego Garcia in Guam, our two maritime pre-positioning squadrons, which each have seven ships in there. One of the things -- ships that were just added was the John Glenn and the Montford Point, which are new MLPs, which add capability into those maritime pre-positioning squadrons. So, from a pre-positioning ship squadron to be able to get those follow-on forces in after the assault

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echelon goes in, which we talked about on the amphibs, we've got that capability. And I think we've -- always going to have a struggle ensuring that we've got enough of the aircraft lift to be able to move strategic forces around, because that's a competition that we'd have to be competing with COCOM demands to be able to get other forces like the Army or the Air Force into theater.

8 Senator Sullivan: Let me ask another question that 9 relates, not to strategic lift, but to training 10 opportunities. So, as you know, General, on Okinawa, the 11 training is limited for infantry units and -- can you even 12 do indirect fire there? I don't think -- can you do 81s or 13 artillery there? I think it's still limited.

General Walsh: On the artillery side, I'll have to get back to you on mortars or 81 millimeter mortars,

16 specifically. We'll take that for the record.

17 [The information referred to follows:]

- 18 [SUBCOMMITTEE INSERT]
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General Walsh: But, artillery, we're not able to conduct artillery on island, like in years past where we were able --

4 Senator Sullivan: So, Okinawa's limited. How about 5 the training opportunities in the DPRI and/or Guam? It -- I 6 was in Guam last year, and did not make it out to some of the islands, but are there concerns that -- it's Okinawa, 7 8 it's Guam, it's DPRI. I even think there are some training 9 limitations with regard to the deployments to Hawaii. Obviously, Australia seems to be much more open, like CACS 10 11 or 29 Palms. But, are you concerned about -- we're going to 12 redeploy these marines to different parts of the Asia-Pacific, and yet the limitations that were some of the 13 14 concerns that we had in Okinawa, in terms of serious 15 infantry combined-arms training, we're going to have limits 16 in the next places we go to? And if that's the case, what 17 should we -- should we be looking at other places, where the training is wide-open, serious, no-limitations, all 18

19 combined-arms capabilities, including close air support? Do 20 you have concerns about that?

General Walsh: I think the Pacific Commander and also
 General Toolan, our Marine Force's Pacific Commander,

23 they're always working those opportunities into the theater 24 security cooperation engagement plan. So, I think there's a 25 balance of training and getting the most focus on the best

training you can get, along with building partnerships and alliances in working with our allies. So, I think part of that is -- if I focus specifically on the Guam piece, I think our training plan -- we've got some training on-island at Guam, but we've also got capabilities that we're building into Tinian and building up some capabilities there.

Senator Sullivan: But, are those -- I mean, have we nailed those down yet? It seems like we're always in negotiation with the island governments on additional training that -- I know, talking to some of the officers who have been working that, it seems to be an -- kind of a continuing source of frustration.

General Walsh: I think we're working through that. I 13 14 know the Commandant testified, just recently, on -- one of 15 the things we've got to ensure is -- as we build up Tinian, 16 is a training location. We've got to be able to get our 17 marines from Guam to Tinian -- is going to be a challenge that we've got to do. We talked about Australia, though, is 18 19 the marine rotational force Darwin to be able to move forces 20 in there, not only build partnership and alliances with our 21 Australian partners, but a very good training area that 22 we've got, along with our Australian partners there.

23 So, I think the more exercises, the more opportunities, 24 working with other allies and partners over there, it gives 25 us more training opportunities. One of the reasons is,

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marines like to get off-island in Okinawa, to be able to go other places, because a lot of the training opportunities exist in other places we go. Why they like to deploy up to Korea, there's a lot of good ground training capabilities we get there. We get those -- the amphibious exercises there, which provide us a lot of the training capabilities.

So, I think they're out there, and you have to balance
where you go along with continuing to work with allies and
partners so you can continue to make those relationships.
And sometimes you are making some trades on the training to
be able to build those partnerships and alliances.

12 Senator Sullivan: Thank you.

13 Thank you, Mr. Chairman.

14 Senator Wicker: Thank you, Senator Sullivan.

15 Senator Hirono.

16 Senator Hirono: Just one short followup regarding the movement of our marines out of Okinawa. There are a lot of 17 18 moving parts to that movement. And right now, I know that 19 there is a delay, probably a rather substantial delay, in 20 moving our troops out of Futenma into Henoko. At the same 21 time, we are doing what we need to be doing with regard to 22 Guam and -- and we do need to figure out the training that 23 we're going to do in CNMI.

24 So, my question -- clarification, General, is that --25 as long as we are not able to build the facility in Henoko,

we will -- our -- the remaining marines will still be in Futenma. Is that your understanding?

General Walsh: The intent, Senator Hirono, is to move those marines from Futenma up to Henoko in the Futenma replacement facility. And what I understand is, the Okinawa Governor has brought a protest against --

7 Senator Hirono: Yes.

General Walsh: -- that, in negotiating with the 8 Japanese government. And until that's cleared, we really, 9 10 obviously, can't get the construction going to be able to 11 build the facility that would allow us to move from Futenma 12 up there to the facility that we're looking to build as an offshore facility up there to replace the Futenma location. 13 Senator Hirono: And so, everybody understands, 14 15 including the Governor of Okinawa, that if we can't build 16 the facility in Henoko, we will be in Futenma.

General Walsh: That's been the position of the government, is -- we will stay there until we can solve that solution, ma'am.

20 Senator Hirono: Thank you.

21 Thank you, Mr. Chairman.

Senator Wicker: Has construction or site preparation
completely halted because of the protest?

General Walsh: I'll have to get back with a specific answer, Mr. Chairman, but I believe it has stopped while the

| 1  | protests have been ongoing.            |
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| 2  | [The information referred to follows:] |
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Senator Wicker: Thank you.

Well, listen, it's been a great hearing. And we appreciate your service, as all members have said. And we appreciate you being patient with us on our questions today. Without objection, we'll leave the record open for other questions for the record for 5 days. And if there's nothing further, this hearing is closed. [Whereupon, at 3:15 p.m., the hearing was adjourned.]