

Stenographic Transcript
Before the

Subcommittee on Airland

COMMITTEE ON
ARMED SERVICES

UNITED STATES SENATE

HEARING TO RECEIVE TESTIMONY ON ARMY
MODERNIZATION IN REVIEW OF THE DEFENSE
AUTHORIZATION REQUEST FOR FISCAL YEAR 2023
AND THE FUTURE YEARS DEFENSE PROGRAM

Tuesday, May 10, 2022

Washington, D.C.

ALDERSON COURT REPORTING
1111 14TH STREET NW
SUITE 1050
WASHINGTON, D.C. 20005
(202) 289-2260
www.aldersonreporting.com

1 HEARING TO RECEIVE TESTIMONY ON ARMY MODERNIZATION IN
2 REVIEW OF THE DEFENSE AUTHORIZATION REQUEST FOR FISCAL YEAR
3 2023 AND THE FUTURE YEARS DEFENSE PROGRAM

4
5 Tuesday, May 10, 2022

6
7 U.S. Senate
8 Subcommittee on Airland,
9 Committee on Armed Services,
10 Washington, D.C.

11
12 The subcommittee met, pursuant to notice, at
13 2:38 p.m., in Room 222, Russell Senate Office Building,
14 Hon. Tammy Duckworth, chairman of the subcommittee,
15 presiding.

16 Subcommittee Members Present: Senators Duckworth
17 [presiding], Blumenthal, Peters, Kelly, Cotton, Scott,
18 Blackburn, and Hawley.

1 OPENING STATEMENT OF HON. TAMMY DUCKWORTH, U.S.
2 SENATOR FROM ILLINOIS

3 Senator Duckworth: The Airland subcommittee will come
4 to order. I would like to welcome our witnesses to the
5 hearing this afternoon, Mr. Douglas Bush, Assistant
6 Secretary of the Army for Acquisitions, Logistics and
7 Technology. It is good to see you again. Lieutenant
8 General James Richardson, Deputy Commanding General, Army
9 Futures Command, welcome. And Colonel Christopher Grice,
10 Director of Materiel, Force Development, Army G-8.

11 I welcome each of you and thank you for your service
12 and willingness to appear before us today. As we meet
13 today to explore the Department of the Army's investment
14 and modernization strategy as presented in its Fiscal Year
15 2023 budget request, I would like to take a moment to
16 acknowledge work that soldiers are doing across the globe
17 and express my gratitude for military families and the
18 vital role that they play.

19 Soldiers and their service counterparts remain engaged
20 in operations and training events that test equipment and
21 identify needed capabilities. Today, thousands of soldiers
22 are deployed to the European continent in support of
23 Ukraine and deterring expansion of Russian aggression.
24 These missions validate the importance of pre-positioned
25 stocks and the complexity of contested logistics.

1 Operations in Ukraine demonstrate the criticality of
2 competent combined arms operations for a ground force and
3 the power of joint and collation operations for our Nation.

4 As we begin work on the 2023 National Defense
5 Authorization Act, we recognize that the Army is operating
6 with a largely flat budget. In this budget submission, the
7 Army continues to prioritize its signature modernization
8 efforts, slowing procurement of enduring capabilities.
9 Reduced procurement quantities of capabilities critical to
10 today's Army drive something significant -- sometimes
11 significant increases in cost per unit.

12 The committee plays a crucial role in the oversight of
13 these programs and would like to better understand how the
14 Army is ensuring it makes best use of its resources with
15 this strategy. The recently submitted classified national
16 defense strategy sets out the Department of Defense
17 strategic priorities and identifies the ways that the
18 Department would advance its goals.

19 The NDS ranks China as the most consequential
20 strategic competitor and the pacing challenge for the
21 Department. Russia remains an acute threat. Additionally,
22 the Department must manage persistent threats such as North
23 Korea, Iran, and violent extremist organizations. We are
24 interested in the specific investments and capabilities the
25 Army included in its Fiscal Year 2023 budget request that

1 support implementation of the 2022 NDS.

2 The Army continues its modernization effort across its
3 six modernized Nation priorities, long range precision
4 fires, next gen combat vehicles, future vertical lift, the
5 Army network, air and missile defense, soldier lethality,
6 and its rapid capabilities development efforts in
7 hypersonics, directed energy, indirect fire protection, and
8 mid-range capability. We understand that 24 of the Army's
9 priority efforts are set to be in soldiers hands, systems,
10 or prototypes by 2023.

11 Successful introduction of these capabilities will be
12 in part due to significant employment of digital design and
13 digital prototyping. This practice helps to validate
14 capabilities and refine requirements in advance of physical
15 prototyping. Soldier centered practices such as soldier
16 touch point in the prototyping phase and try before you buy
17 partnerships with industry improve functionality and
18 soldier acceptability and make more rapid fielding
19 possible.

20 And I applaud the Army's progress in this area. A
21 transformation of capability this significant will
22 certainly trigger changes to Army structure, operating
23 concepts and postures in order to best meet the threat
24 environment. We are interested to hear what changes the
25 Army is considering.

1 Additionally, we must understand the impact of these
2 decisions on the modernization of the Army National Guard
3 and Army Reserves, critical components of the total Army.
4 Finally, I want to acknowledge the Army's recently
5 published organic industrial base modernization strategy.
6 This plan would invest \$16 billion over the next 15 years
7 in facility modernization, with the mission to enable
8 current material readiness, maintain surge capacity, and to
9 support future weapons platforms for the Army and Joint
10 Force.

11 The organic industrial base remains critical to the
12 Army's modernization strategy. We would like to better
13 understand how the Army is nesting its material
14 modernization efforts with this industrial base initiative.
15 The Army continues to make both steps in its effort to
16 modernize, but hard decisions lie ahead.

17 I have great confidence in you all and look forward to
18 another productive year as we continued to field a world
19 class Army. I am -- do we have time in for Senator Cotton
20 by any chance? If not, we will continue and let the
21 witnesses provide their statements and then I will reserve
22 time for the ranking member to give his remarks. I will
23 start with --

24 [Laughter.]

25 Senator Duckworth: I am glad it wasn't me. We will

1 begin with Mr. Bush.

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

1 STATEMENT OF HON. DOUGLAS BUSH, ASSISTANT SECRETARY
2 OF THE ARMY FOR ACQUISITION, LOGISTICS AND TECHNOLOGY

3 Mr. Bush: Chair Duckworth, thank you for that
4 statement and your kind words about what our soldiers are
5 doing every day overseas. That is a great reminder for all
6 three of us that that is what we are here. That is what
7 our job is to actually get them equipment. So thank you
8 for mentioning that.

9 Thank you for the invitation today to appear before
10 you to discuss the Army's modernization programs and
11 resources requested in the President's budget for Fiscal
12 Year 2023. I am pleased to be joined today by my
13 teammates, Lieutenant General James Richardson, Jim from
14 Army Futures Command, and Colonel Chris Grice from the
15 Assistant -- or the Deputy Chief of Staff, G-8.

16 We appreciate your making our written statement a part
17 of the record for today's hearing. Chair Duckworth, the
18 Army continues to transform and provide the Joint Force
19 with the land warfare capabilities needed to accomplish the
20 missions of the Department of Defense.

21 The Army's Fiscal Year 2023 budget and can be
22 described in two words, continuity and momentum. It
23 maintains the readiness of the Army and establishes a
24 sustainable path to transform to the Army of 2030.

25 Our transformation requires a strategic pivot from two

1 decades of counterinsurgency operations toward adaptation
2 to meet our top pacing challenge in China, and the acute
3 threat of Russian aggression, all while continuing to
4 defend the homeland and be prepared for other missions
5 around the world.

6 As outlined in a written statement, we remain
7 committed to our six modernization priorities, long range
8 precision fires, next generation combat vehicles, future
9 vertical lift, the network, air and missile defense, and
10 soldier lethality. The Army's budget also continues
11 modernization and procurement of our enduring platforms,
12 albeit in some cases at reduced levels, as you noted, in
13 aviation, ground combat systems, intelligence, logistics,
14 and ammunition.

15 Overall, I believe the budget request reflects an
16 approach that prioritizes our most important modernization
17 efforts. However, all budget proposals require making
18 choices, and this one is no different. One of the
19 questions asked of us in the hearing invitation was, "how
20 the Army is managing risk while prioritizing future
21 capability over enduring force modernization efforts." That
22 is a critical issue, so let me address that briefly.

23 As you are aware, in order to protect the Army's
24 highest priority modernization efforts, the Army did reduce
25 requested funding in other areas, specifically in the pace

1 of modernization of our armored brigade combat teams. That
2 decision was not made lightly. I am confident that Army
3 leaders understood the potential challenges of that
4 approach.

5 However, in doing so, the Army sought to ensure that
6 we didn't go so low on any systems that we put the
7 industrial base at risk to a degree that it forecloses the
8 ability of the Army to ramp back up someday if more funding
9 becomes available. In short, we sought to ensure that we
10 did not close off options for Army leaders or Congress to
11 make adjustments to our plans in the future, if they judge
12 that is the right thing to do.

13 That is a careful balance to strike. And I
14 acknowledge we don't always get it exactly right. So I
15 look forward to working with you and other Senators on your
16 views of where the Army landed on this issue. A second
17 question asked in the hearing invitation was management of
18 risk in the industrial base.

19 There are two parts of that important issue I can
20 address. First, the Army must monitor the privately owned
21 industrial base, that base of suppliers and manufacturers
22 owned by our industry partners. As I mentioned, one way we
23 manage that risk is during the budget process, carefully
24 analyzing the potential effects of the industrial base of
25 any changes we are considering.

1 That includes trying to ensure that we understand the
2 downstream effects on second and third level suppliers.
3 Often, what we see is little -- is less risk at the level
4 of the largest companies, but greater risk as we look
5 further down the supply chain. The second aspect of the
6 industrial base is the organic industrial base you
7 mentioned in your statement. The depots, arsenals, and
8 ammunition facilities that are Government owned.

9 In this case, the Army recently completed a new 15
10 year modernization plan that seeks to significantly upgrade
11 our capabilities to match 21st century needs, prioritizing
12 improved safety and expanded capacity within our current
13 facilities. This plan also led to a historically high
14 level of funding in the budget for upgrading these
15 facilities across the board. For example, the Army is
16 requesting more than \$200 million in upgrades just for
17 Watervliet Arsenal in Fiscal Year 2023.

18 That facility is one of the only places in America
19 where gun tubes and cannons can be made, so it is a vital
20 single point of failure in the supply chain that we have to
21 protect. We also include, if you look across the fight
22 hub, about \$500 million a year in upgrade efforts for the
23 Army's ammunition plants.

24 The Army is the single manager for conventional
25 ammunition, and that is primarily a joint responsibility

1 because most of what we produce in energetics, for example,
2 goes to the Navy and Air Force for their needs. That is an
3 Army responsibility we take very seriously, and this budget
4 invests more in that. I worked closely with General Daly
5 at Army Materiel Command on this effort, and I think it is
6 a well done plan for improving the industrial base.

7 A final issue I would mention is the Army is trying to
8 use all of the new acquisition authorities provided by
9 Congress in recent years to make the Army's acquisition
10 system more responsive to the needs of soldiers and to get
11 equipment into their hands much more quickly than in the
12 past.

13 In particular, the use of the new urgent need pathway,
14 middle tier acquisition pathway, and software acquisition
15 pathway provide the Army with greatly expanded options to
16 move faster. As an example, as you cited, many of the more
17 than two dozen systems the Army plans to field to soldiers
18 in 2023 use those new authorities to move at accelerated
19 timelines. I know change in the DOD can be very slow. You
20 should know that it can happen and that it is happening in
21 the Army.

22 The Army is changing and is committed to continuing
23 this approach in the future with the support of members.
24 As Senators consider the Fiscal Year 2030 legislation, I
25 would ask you to be cautious about adding additional

1 complications or additional elements of the acquisition
2 system, as adding anything to the system that is already
3 difficult to move quickly and can sometimes slow it down
4 further.

5 I am aware, however, that that is a balance, and that
6 oversight matters, and taxpayer dollars must be protected,
7 and the Army must use these authorities responsibly, and
8 that is something I am committed to.

9 In closing, I would like to say thank you for the
10 funding provided to support our many modernization efforts
11 in recent years, and we believe that the Fiscal Year 2023
12 budget request builds on this progress we have made across
13 all modernization priorities.

14 Thank you for your time today and I look forward to
15 your questions.

16 [The prepared statement of Mr. Bush follows:]

17

18

19

20

21

22

23

24

25

1 Senator Duckworth: Thank you. And at this time, I
2 would like to recognize the ranking member for any opening
3 statement.

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

1 STATEMENT OF HON. TOM COTTON, U.S. SENATOR FROM
2 ARKANSAS

3 Senator Cotton: Thank you, Chairwoman Duckworth. And
4 thanks to the witness for your service. We appreciate your
5 willingness to take on substantial challenges the Army
6 faces, but I want to cut to the chase.

7 The recently released defense strategy rightly
8 highlights the accelerating threat of communist China and
9 its unprecedented military modernization, and recognizes
10 Russia remains an acute threat given its invasion of
11 Ukraine. But the Administration's budget request falls far
12 short of providing the resources required to face these
13 threats.

14 The Administration's budget not only doesn't keep pace
15 with the rate of China's modernization, it doesn't even
16 keep pace with our own inflation. Specifically for the
17 Army, the Administration request cuts to the research and
18 development budget by 6 percent and cuts Army procurement
19 by 7 percent from the most recently enacted levels.

20 Army leadership absorb these cuts by dramatically
21 slowing the modernization of critical, enduring
22 capabilities, such as the Abrams tank that are the backbone
23 of our armored brigade combat teams, deterring further
24 Russian aggression in Europe at this very moment.

25 Unfortunately, the substantial quantity reductions

1 requests in this budget also drive up the per unit cost of
2 these multimillion dollar platforms, somewhere between 15
3 and 40 percent. I suspect that Army leadership would not
4 have taken this pennywise and pound foolish approach if
5 they had been given an adequate top line by the Office of
6 the Secretary of Defense, the Office of Management and
7 Budget, or the White House.

8 Unsurprisingly, therefore, the Army's unfunded
9 priorities list seeks to restore \$5.1 billion in critical
10 requirements to mitigate the risk of the inadequate request
11 for the Army. We have a lot of work to do to ensure that
12 the Army receives the resources it needs to modernize for
13 the threats we face.

14 So I look forward to the hearing from our witnesses --
15 from hearing from our witnesses today about the progress
16 the Army is making on its highest modernization priorities,
17 such as long range precision fires, and what we can do to
18 overcome the challenges we are experiencing in replenishing
19 advanced munitions transferred to Ukraine.

20 Again, I think Chairwoman Duckworth for calling the
21 hearing, and I look forward to the testimony.

22 Senator Duckworth: I thank the ranking member.
23 General Richardson?

24

25

1 STATEMENT OF LIEUTENANT GENERAL JAMES RICHARDSON,
2 DEPUTY COMMANDING GENERAL, UNITED STATES ARMY FUTURES
3 COMMAND

4 General Richardson: Chair Duckworth, Ranking Member
5 Cotton, distinguished members of the subcommittee, on
6 behalf of the teammates here at this end of the table and
7 the soldiers and civilians of Army Futures Command, thank
8 you for the opportunity to testify about Army
9 modernization.

10 Our country is engaged in strategic competition with
11 determined adversaries. Part of that competition is the
12 struggle among the militaries to out-innovate one another.
13 Army Futures Command and our partners are on the front
14 lines of that struggle. Innovation is about more than
15 materiel.

16 Armies win or lose by a combination of their doctrine,
17 organization, and equipment. All three start with AFC. We
18 develop concepts that become doctrine, design future
19 organizations, and develop requirements for materiel all
20 based on assessments of the future operational environment,
21 emerging threats, and technologies.

22 The soldiers and civilians of AFC are making
23 significant progress in each of these areas. AFC, working
24 very closely with our ASO partners in supporting the
25 delivery of 24 transformational systems into the hands of

1 soldiers by 2023, based on the Army's six modernization
2 priorities.

3 Through soldier centered design and strong support
4 from Force Comm, we are getting equipment into the hands of
5 soldiers early so that we can inform requirements before
6 significant investments are made. In Fiscal Year 2021
7 alone, we conducted 113 soldier touchpoints.

8 Looking ahead, we are seeking even more opportunities
9 to integrate the lessons from the operational force, such
10 as the continuing and collaboration of 18th Airborne Corps,
11 III Corps, and I Corps. AFC leads Project Convergence, the
12 Army's campaign of learning and experimentation, which
13 informs requirements, concepts, and future force design.

14 In Project Convergence 21, we learned that we must
15 take a system of systems approach in developing our
16 requirements documents. We also learned that we need to
17 move from interoperability to integration of systems with
18 the Joint Force and our allies.

19 In Project Convergence 22, we will scale the
20 technologies we are testing, integrate our allies and
21 partners, and build on the lessons of Project Convergence
22 21. AFC is helping pave the way to a data centric Army,
23 fully integrated into a data centric Joint Force.

24 PC 21 taught us that data is the new ammunition, and
25 the network is the center of gravity of the future fight.

1 We are working to fully implement common data standards and
2 joint message formats in our requirements documents to
3 ensure a systems approach among the Army, Joint Force, and
4 our allies and partners.

5 Furthermore, we are moving the Army towards a future
6 network that is transport agnostic, cyber resilient, and
7 underpinned by a modernized security architecture. AFC is
8 designing the Army of 2040 and supporting the delivery of
9 the Army of 2030. We start by describing the future
10 operational environment.

11 Then, through our future studies programs, we bring
12 together concept writers, intelligence professionals, and
13 S&T experts to build our next concept, focused on how the
14 Army of '24 will organize, equip, and fight. Stable and
15 consistent funding from Congress supports our ability to
16 serve our Nation, take care of our people, and continue the
17 momentum of our modernization efforts.

18 Thank you for your consistent support of our Army and
19 our families. I look forward to answering your questions.

20 [The prepared statement of General Richardson
21 follows:]

22

23

24

25

1 Senator Duckworth: Thank you, General. And now
2 taking the place of General McCurry, Colonel Grice, thank
3 you for stepping up.

4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

1 STATEMENT OF COLONEL CHRISTOPHER GRICE, DIRECTOR OF
2 MATERIEL, FORCE DEVELOPMENT, DEPUTY CHIEF OF STAFF OF THE
3 ARMY, G-8

4 Colonel Grice: Thank you, Chair Duckworth. And thank
5 you, Chair Duckworth and Ranking Member Cotton,
6 distinguished members of the Senate Armed Services
7 committee on Airland. On behalf of Lieutenant General
8 Peterson, Brigadier General Mac McCurry, and the
9 headquarters Department of the Army Deputy Chief of Staff
10 G-8 team, thank you for the invitation to appear before you
11 to discuss Army modernization and the resources request for
12 the President's budget for Fiscal Year 2023.

13 Our requested investments in modernization for Fiscal
14 Year 2023 reflect a deliberate, multi-year effort to
15 accelerate focused modernization and place transformational
16 capabilities in the hands of our soldiers. These
17 capabilities support our national defense strategy for
18 integrated deterrence, active campaigning, and help us
19 build and maintain an enduring advantage over peers and
20 potential adversaries.

21 The Army's efforts contribute directly to the Joint
22 Force's ability to deter, and when called upon, fight and
23 win decisively. Modernized capabilities reduce risk
24 imposed by an increasingly aggressive competitors and foes
25 to help us achieve decision dominance, range, and lethality

1 that provide overmatch against any adversary.

2 The Army remains committed to maintaining momentum for
3 our modernization priorities while sustaining our enduring
4 fleets. We continue to invest in upgrades to our enduring
5 systems that will fight alongside our modernized
6 capabilities.

7 Through four years of prioritization, the evaluation
8 of capabilities, and difficult decisions on funding, we
9 maintain that momentum to achieve a sustainable strategic
10 path to the Army of 2030.

11 We are grateful to Congress for the stable funding
12 provided to support our modernization efforts, and with
13 your sustained support, we will deliver advanced
14 capabilities that enable the Joint Force to win in large
15 scale combat and multi-domain operations.

16 Thank you for your time today and I look forward to
17 answering your questions.

18 [The prepared statement of Colonel Grice follows:]
19
20
21
22
23
24
25

1 Senator Duckworth: Thank you. I now recognize myself
2 for five minutes of questions. Mr. Bush, what Army
3 modernization efforts are most critical to the Army
4 fulfilling its roles as outlined in the NDS and why?

5 Mr. Bush: Thank you for the question, Senator. I
6 think I will start, and then if you allow it, let General
7 Richardson add in a bit from an Army operations concepts
8 requirement. I can tell you that the Secretary, given
9 China's pacing threat, has focused particularly on three
10 areas, long range fires, air and missile defense, and the
11 network, all three of which we believe are foundational to
12 anywhere the Army fights, but in particular, improving
13 capabilities in those areas are vitally important for
14 fulfilling the Army's role in a potential contingency with
15 China.

16 General Richardson: Senator, I would echo that from
17 Mr. Bush. Those three priorities are critical. We have
18 been experimenting, and we have been also watching the news
19 of what is going on in the Ukraine and the Soviet Union --
20 and Russia have taught us a lesson. Number one, that our
21 modernization priorities are correct. Long range precision
22 fires is critical.

23 And as I think all of you have been briefed on, we
24 have three aspects of the long range critical -- long-range
25 precision fires that is on track to be delivered in Fiscal

1 Year 2023. That is the extended long range cannon, PrSM,
2 and our hypersonics missiles.

3 So as it relates to the Army priorities and how it
4 relates to what is going on in the world today, I do
5 believe that we have our modernization priorities, and they
6 are on track.

7 Senator Duckworth: Thank you. Mr. Bush, while the
8 Army's Fiscal Year 2023 budget request both maintains the
9 readiness of the Army and maintains the modernization
10 priorities of the Army of 2030, it does so with a largely
11 flat budget, we have already mentioned this, and at the
12 expense of enduring modernization, particularly those
13 required for the Armored Brigade Combat Team modernization
14 effort, as my -- as our ranking member has mentioned. How
15 is the Army balancing risk in the current force to enable
16 this prioritization?

17 Mr. Bush: Thank you, Senator. I think it is -- from
18 an equipping standpoint alone, I think, as I mentioned, the
19 first thing we look at is industrial base to make sure we
20 don't go too low to where should a contingency arise or
21 more funding become available, those decisions can be
22 reversed, and we can pick things back up and move faster.

23 So that is one way to mitigate risk. The second way
24 is to be careful about and thoughtful about where we do add
25 funding. Every year, there is a tremendous amount of churn

1 inside the Army just on new initiatives and new things
2 being -- wanting to be funded. We took the process we just
3 went through, and the process went through last year,
4 exceedingly careful to look at anybody wanting to add
5 something new in order to protect funding where resides.
6 So a second way we mitigate risk.

7 And the other one is the many other things that the
8 U.S. Army brings to the fight, which is better leadership,
9 better training, better logistics, which, while they can't
10 overcome every equipment difference, can make a big
11 difference in terms of the overall combat effectiveness of
12 Army units, as General Richardson was mentioning.

13 Senator Duckworth: Thank you. But let's get back to
14 the equipment. Colonel Grice, how is the reduction of
15 procurement quantities of modernization capability such as
16 the Abrams, Bradleys, and Paladins impacting the cost per
17 unit?

18 Colonel Grice: Chair Duckworth, we are managing that
19 as we go through and develop our program each year. And
20 for ABCT modernization, while we did take cuts, we are
21 still achieving 7 -- modernized 73 tanks in this budget, in
22 '23, and 9 BCTs by Fiscal Year 2027. As we looked at those
23 reductions to focus on modernization, we analyzed those
24 costs, analyzed programmatic impacts, and made the best
25 decision we could to continue to focus funding toward our

1 modernization capabilities that have been discussed.

2 Senator Duckworth: Secretary Bush.

3 Mr. Bush: Yes, ma'am. So one thing to keep in mind,
4 it varies by contract type. So some things, we were in a
5 fixed price contract environment where the cost of the item
6 is the cost of the item. In other cases, there is range
7 pricing depending on the quantity of the Army's orders,
8 which as you pointed out, if we are at the low end of that
9 pricing range, the unit quantities are higher.

10 We seek to mitigate that also by trying to spread out
11 orders so it is a level set of orders not going up and down
12 with the defense industry so they can do their long lead
13 parts, ordering more efficiently. But there is no perfect
14 solution to -- buying less sometimes does increase costs.

15 Senator Duckworth: Okay. The Secretary of the Army
16 describes the Army's role in the Pacific in part to sustain
17 the Joint Force over vast distances by providing secure
18 communications, establish intra theater distribution
19 networks, and maintaining munitions stockpiles, as well as
20 for arming and refueling points. This all gets to the
21 importance of contested logistics.

22 Mr. Bush, how does the Fiscal Year 2023 budget invest
23 in Army logistics capabilities, and what operations have we
24 learned from -- what lessons have we learned from
25 operations in Europe?

1 Mr. Bush: So Senator, I will start. I can answer the
2 budget question and then let General Richardson talk about
3 Europe, if that is okay. So this budget does modestly
4 increase funding for some areas of logistics, for example,
5 tactical wheeled vehicles. If you look inside there, the
6 JLTV program, for example, is up by about a third this
7 year. That is progress. Some of our other truck lines are
8 also up slightly.

9 But I -- you are right that overall there is a lot of
10 level effort there. One area of increase is watercraft
11 modernization, pacific in particular. The Army's
12 relatively small but important watercraft fleet will be
13 important part of the joint logistics capability we
14 provide. Modernization funding for that is up modestly in
15 this budget request as well.

16 General Richardson: And Senator, as you mentioned,
17 the Army has the specified role and Title X tasks to
18 support not only the Army, but all of the other services as
19 it relates to fuel, as it relates to ammunition, the
20 distribution, and the protection of our lines of
21 communication. Obviously, the number one priority within
22 the Army is from a contested logistics perspective, is to
23 set the theater.

24 And some of the things -- and we are learning a lot.
25 And you have been briefed on sensor to shooter. I label it

1 now sensor to shooter to sustainer. And those are some of
2 the lessons that we learned. The lessons I have learned
3 personally is we need to take a better look at our -- you
4 have seen what is happening in Ukraine. And the lesson
5 that we took at AFC is we really have to take a look at our
6 requirements documents and look at reliability, because if
7 you have a reliable weapons system, you don't need as many
8 parts.

9 You need to look -- from a requirements perspective as
10 well, you need to look at fuel and the standards as well as
11 maintainability. So that is one aspect that we have
12 learned and applying it in our requirements documents today
13 early on. The second aspect is predictive logistics. We
14 have got to be able to predict when our systems are going
15 to fail, put sensors on them, and have a common operating
16 pitch in one of those systems. That will free up the
17 supply lines.

18 And then lastly, we have to have an understanding, a
19 common understanding -- a common operational picture on the
20 battalion all the way to the enterprise level, so when we
21 are shooting ammunition or using gas or our need fuel, we
22 have the same common operating picture, you know, at the
23 battalion as you do back at the enterprise level, and they
24 are able to push that logistics forward.

25 That was a big -- a large aspect that we learned from

1 the Ukraine fight and some of the things that we are
2 applying today of where we are going to the future.

3 Senator Duckworth: I just have concerns that this
4 flat budget isn't going to allow us to meet some of these
5 requirements. I am going to recognize the ranking member
6 for his questions.

7 Senator Cotton: I very much share your concerns. Mr.
8 Bush, as I mentioned in my opening statement, this budget
9 cuts research and development by 6 percent, procurement by
10 7 percent from the enacted Fiscal Year 2022 amounts. Could
11 you explain to me how the Army absorbed these actual
12 reductions in such critical fields?

13 Mr. Bush: Senator, I can offer some thoughts there.
14 First, I would, of course, point out that we are not the
15 only part of the Army's budget in play. So the people part
16 of the Army's budget and the training part are, of course,
17 also things that sometimes take away from our accounts is
18 all part of the tradeoff.

19 Senator Cotton: I think we cut in strength by 12,000,
20 didn't we?

21 Mr. Bush: Yes, sir.

22 Senator Cotton: That is not good either. I know it
23 is not your responsibility.

24 Mr. Bush: Sir, that is for members to judge. I would
25 say that those -- the reductions to our accounts, I think a

1 lot of good work goes into that. It doesn't make it easy.
2 I think what you end up seeing, and you have identified it,
3 is places where we couldn't ramp up production or we even
4 had to go down, and we worked through what those risks are.
5 But those are never easy choices, sir.

6 Senator Cotton: Okay. Let's turn to our ammunition
7 stockpile. I find it very worrisome for the United States,
8 for Ukraine, for Taiwan. The reports have indicated that
9 we have sent one-third -- one-fourth to one-third of our
10 javelin and stinger stockpile to Ukraine, but we aren't
11 capable of replenishing those systems at a reasonable rate.

12 Mr. Bush, does our munitions industrial base provide
13 the surge capacity that we would need for a protracted
14 fight in Ukraine, in addition to satisfying our own needs
15 and the need to defend Taiwan?

16 Mr. Bush: So, Senator, I think given enough time, the
17 innovative American private sector industrial base,
18 combined with our organic industrial base, can meet the
19 needs. However, that would require funding to ramp up
20 those aspects of those things so we can sustain those
21 rates. Specific to your question, we have sent those
22 munitions.

23 The Army does have a plan to replenish those. We are,
24 I can assure you, pushing on all doors and looking at every
25 option to make that process go much faster than some of the

1 timelines you have heard for preferred munitions.

2 Senator Cotton: Your phrase at the beginning was the
3 very important caveat, which is given the time. I am
4 afraid that Ukraine may not have the time. And for that
5 matter, Taiwan may not have the time. Some of the
6 assessments I have heard of the time it would take to
7 replenish these stockpiles are shockingly long.

8 And even if they are off by a factor of two or three
9 or four, it still seems pretty long to produce not an
10 aircraft carrier or not even a tank, but a missile that a
11 private can carry and learn how to effectively employ in
12 the span of an afternoon.

13 Can you help us understand where the bottlenecks are
14 in this system and what we can do as the committee to help
15 accelerate the production?

16 Mr. Bush: Yes, sir. So a couple of things I would
17 offer for members to consider. The first one is production
18 timelines for advanced weapons, including ones that we make
19 like Stinger and Javelin, have often hovered in the 18
20 months to 30 months range for some time, only getting much
21 faster than that when production rates are very high, and
22 the entire supply chain can feed it.

23 However, we mitigate that risk by maintaining
24 stockpiles, as you pointed out. We are now in a
25 circumstance where we have provided some of that to a third

1 party in Ukraine, and we are refilling our own stocks.

2 But our munitions levels, sir, and we can provide all
3 the numbers on every single item, I think you will see a
4 wide range. In many areas, we are still in good shape,
5 even given what we have sent. In other areas, there are
6 areas of concern, and happy to work with you on those. In
7 terms of what the committee could do, one thing is advanced
8 procurement.

9 The Army doesn't use that very much, other services
10 do, which is it buys long lead parts one year ahead of when
11 the end item is ordered. That is something that I believe
12 we could possibly use in this case to shorten those
13 timelines. So we could buy long lead items this year to
14 support deliveries that would be put on contract next year,
15 and that could compress things, sir.

16 And that would require working with the committee on
17 adjusting our budget request.

18 Senator Cotton: I think we should do that. Even, you
19 know, 18 to 30 months as you said, it is a conversation I
20 have had with a lot of Arkansans, and I think most of them
21 just find it astonishing that it takes our defense
22 industrial base that long to produce such a relatively
23 simple weapon. I mean, old timers talk about how many
24 ships and aircraft were churning out at the height of World
25 War II.

1 And whether it is some of those bench stalk items that
2 you can use in advance if you procure them or more time
3 running these lines, I am sure all the workers would be
4 happy with overtime, we need to find solutions that produce
5 these weapons at a much faster rate than I have seen
6 assessed in classified settings. And I think suspect most
7 people on the committee would want to work with the
8 Department on that.

9 Senator Duckworth: I like that idea. Senator Peters.

10 Senator Peters: Thank you. Thank you, Madam Chair
11 and Ranking Member Cotton. You talked about World War II
12 and turning out more material. It reminds me of the
13 Arsenal of Democracy in Detroit in the Willow Run facility
14 that turned out B-24 bombers -- several B-24 bombers every
15 single day, came off the assembly line, so it is something
16 to be considered.

17 Mr. Bush, the Army has made great progress in
18 developing an open system architecture approach to ground
19 vehicle autonomy software development, which, as you know,
20 allows for collaboration with a wide range of industry
21 leading partners, both traditional and nontraditional.

22 Last week, Secretary Wormuth released the Army
23 Directive 2022-07, which redefined the roles and
24 responsibilities around Army modernization activities. The
25 directive rescinds language from the previous Army

1 Directives, establishing the Army Futures Command as, "the
2 leading the modernization enterprise," and states that the
3 Army's science and technology laboratories now fall under
4 the control of the Assistant Secretary of the Army for
5 Acquisition, Logistics and Technology instead of the Army's
6 Futures Command.

7 So my question for you, Mr. Bush, is how do you
8 anticipate that this new directive is going to support the
9 transition of technologies out of our S&T laboratories, but
10 particularly in key Army modernization areas such as
11 robotics and automation?

12 Mr. Bush: Yes, sir. So one thing I would offer is
13 that the directive really didn't shift that much, it simply
14 clarified lines of authority, most of which are set in
15 statute in terms of which organizations do what in the
16 Army. With regard to S&T labs in particular, one thing it
17 did not change, this is important, that those labs still
18 fall under the operational day to day control of Army
19 Futures Command.

20 My role and my organization's role at the Army
21 headquarters is to oversee that, provide oversight guidance
22 and set policy. So it is a teamwork effort, sir, and I
23 think that teamwork will continue unabated. To your
24 specific question, one of my priorities as Assistant
25 Secretary is to work with General Richardson and his team

1 to formalize and improve our batting average, so to speak,
2 on exactly what you said, which is transitions from S&T to
3 programs of record.

4 I brought in a new Deputy Assistant Secretary to help
5 me do that, who actually came from Army Futures Command.
6 So building those bridges between the organizations to make
7 sure things work better is one of the things I am committed
8 to, sir.

9 Senator Peters: All right. Thank you. General
10 Richardson, as we approach the fielding of hypersonic
11 missile batteries, I am curious how you expect this new
12 capability will impact the Army's overall artillery
13 portfolio in the coming years.

14 Do you expect these newly fielded capabilities will be
15 an enduring complement to our current array of cannon and
16 rocket artillery, or is some other -- are some of our
17 current arsenal in need of further modernization or
18 divestiture?

19 General Richardson: Senator, thank you for the
20 question. And as everyone in here realizes, long range
21 precision fires is our number one priority in the United
22 States Army. And it is really broken down by three
23 aspects. One is that the tactical level, the operational
24 level, and the strategic level.

25 As we look to hypersonics being fielded and a battery

1 in '23, it is going to provide a tremendous offensive
2 capability that we have not had in the past. That combined
3 -- and we fight as a joint team. Those fires, combined
4 with the other services, give us greater lethality and any
5 country we may face. As it relates to affecting programs
6 within the operational aspect or the tactical aspect, it
7 hasn't, sir, at this time, because LRPF is number one.

8 We are on track with PrSM, fully funded. Delivered a
9 capability, a PrSM capability that far exceeds our ATACMS
10 rounds today, in Fiscal Year 2023. And there were -- we
11 are very optimistic about the future for PrSM as it relates
12 to distance and range and maneuverability. And so truly,
13 Senator, to answer your question, it does not have an
14 impact. It complements what we are doing.

15 And when we take what we are doing in all three
16 aspects of long range precision fires combined with the
17 joint -- into the joint fight, it gives a capability that
18 far exceeds any of our competitors.

19 Senator Peters: Right. General Richardson, last week
20 I asked Secretary Wormuth about the Army's plan regarding
21 active protective systems to protect our cutting edge
22 platforms from relatively inexpensive threats that we are
23 seeing from drones and anti-tank guided missiles.

24 Given what we are witnessing right now in Ukraine, it
25 seems like we would be wise to invest in technology in

1 order to preserve the lives of our service members and also
2 safeguard our multi-million dollar platforms.

3 So my question for you is, how do lessons learned from
4 contemporary conflicts like what we are seeing in Ukraine
5 get incorporated into both our current and future
6 capability requirements?

7 General Richardson: Thank you, Senator. We were
8 looking at this for the last couple of years and developed
9 an active protection strategy. And what we are seeing is
10 reinforcing our strategy as it relates to top down attacks
11 or the systems that are required. We have a number of
12 ongoing S&T programs that are on track to be delivered in
13 the short term to increase our survivability.

14 What we have done, as you know, GBSC has -- plays a
15 large part in that active protection program, as well as
16 the aviation aircraft survivability programs. A lot of
17 these programs are top secret or SAP related, but the key
18 thing behind active protection is bring in what we have
19 learned in aviation, what we have learned and ground,
20 bringing it together as a system that in the future will be
21 very successful. And from a money perspective, from an ASO
22 perspective timeline.

23 Mr. Bush: Yes, Senator. So the -- we first of all,
24 partly because of Congress's urging, which was prescient,
25 was the Army did procure sets of active protection systems,

1 limited set, number of brigade sets for M-1 Abrams tanks.
2 What we are looking at now and we are doing the R&D work
3 now to understand is when we can do that for Bradleys and
4 Strykers. And I think that the question for us in coming
5 years will just be the ability or pace of fielding to do
6 that. I think the threat is clear.

7 We have got a requirement. It is just, how does this
8 stack up against our many other needs? And then there is a
9 question of how much do we put into active protection
10 systems like Trophy versus passive protection technologies
11 like better camouflage and electronic measures. And that
12 is an ongoing conversation, sir.

13 Senator Peters: Right. Thank you. Thank you, Madam
14 Chair.

15 Senator Duckworth: Thank you, Mr. Peters. Mr.
16 Blumenthal.

17 Senator Blumenthal: Thank you, Madam Chair. I really
18 appreciate your giving me the opportunity to ask some
19 questions this afternoon. And thank you to the men who are
20 here. Thank you for your service. I want to talk a little
21 bit about the future of vertical lift. Very important to
22 the Army and really to all of our services.

23 The Army's Future Vertical Lift Program is in effect a
24 pivotal modernization of all Army aviation, and it will
25 affect all our services because the H-60 Black Hawk has

1 been ubiquitous across the services. It has been the
2 workhorse. The most dependable helicopter asset that we
3 have for the Army, Navy, and Air Force, over four decades,
4 and its replacement, the future long range assault
5 aircraft, FLRAA, hopefully will deliver improvements in
6 survivability, range, and lethality.

7 I understand you can't talk about the FLRAA contract
8 to be awarded. I understand probably sometime July or
9 August, in that timeframe, maybe you can clarify that point
10 as well. I hope that you will provide the committee with
11 your intention about what the requirements of the contract
12 will be.

13 In my view, a lot of the most recent contracts, too
14 many have involved very large sustainment costs that are
15 inadequately captured in the contract requirements. In
16 other words, the costs of sustaining isn't adequately
17 captured in the contract. But I am deeply concerned right
18 now with some of the level of uncertainty between the
19 Department and Congress about what platforms should be
20 divested or stopped in order to invest in modernization.

21 And most particularly, the disruptions to our
22 industrial base. You can't turn it on and turn it off like
23 a light switch, as you well know. Let me give you an
24 example. The Air Force's combat rescue helicopter. The
25 budget calls for canceling the program after Fiscal Year

1 2023 at two-thirds of the planned 113 helicopters. I
2 fought for this program, and I believe it is absolutely
3 necessary to assure that our aviators and everybody who
4 flies can be rescued if they are down somewhere.

5 And that is the reason why I worked to recapitalize
6 our aging Pave Hawk fleet. It has been the cornerstone of
7 combat search and rescue. Losing that assurance is
8 devastating to our armed services, but it also is
9 potentially a threat to our industrial supply base, which
10 we need to keep in the fight until FLRAA is awarded.
11 Again, not a light switch you can turn on and off.

12 As I know from Sikorsky being in my home State of
13 Connecticut with the most skilled industrial base of
14 helicopter makers in the country, if I may say so. So I
15 would be interested in your assessment, Secretary Bush and
16 General Richardson, in evaluating FLRAA proposals.

17 What consideration should the Army give to the need to
18 maintain and improve the Black Hawks, which are going to be
19 essential for decades to come, and what can be done to
20 assure the future capabilities of our defense industrial
21 base?

22 Mr. Bush: Thank you, Senator. I can address your --
23 a couple of your specifics there. First of all, for the
24 FLRAA contract award, I believe, September is probably a
25 more likely timeline. But we can provide you with more

1 details when we know the exact timing. Second thing with
2 regard to H-60, this committee provided our multi-year
3 authority.

4 For that multi-year, we still need Black Hawk aircraft
5 and we going to keep producing them. That multiyear award,
6 I just checked on it yesterday actually, is now on track,
7 has to go through some hoops at the Office of Secretary of
8 Defense, but we are on track and on time to make sure there
9 is no disruption to the production work there.

10 I think that will give us certainty for that five year
11 multi-year period to make sure that that manufacturing
12 capacity remains. The point you -- point at, sir, the risk
13 area is the transition potentially from one platform to
14 another. Always difficult, especially difficult with
15 aircraft because of the advanced nature of that
16 manufacturing, and of course, the very high standards we
17 maintain.

18 I can assure you that the Army is going to, in its
19 plans, assure that we don't have some kind of gap. So any
20 future transition to a different platform, there has to be
21 overlap essentially to make sure that the industrial base
22 and the suppliers, some of which will be the same, are
23 still healthy and able to produce on schedule.

24 If I could turn to General Richardson to talk briefly
25 about how the Army is trying to reduce cost via better

1 requirements for sustainment, if I could, sir.

2 General Richardson: Senator, I agree with all your
3 comments. And FLRAA are critical programs within our
4 cross-functional teams. I am an Army aviator, so I am very
5 familiar with that program. You talk about the Pave Hawk
6 helicopter. I mean, I am here today because of that -- the
7 United States Air Force coming to get me when we were down.
8 So it is an important aspect.

9 The way we are doing this is different than the way we
10 have done it in the past. We are flying before we buy. We
11 are going out and prototyping. We are learning what is
12 working. We have, you know, aviators, crew chiefs,
13 maintainers out with industry, looking at these platforms,
14 learning, providing feedback. It is helping inform us as
15 the requirements generator for the aircraft.

16 So we have learned a lot over the past couple of
17 years. We are going to be flying a prototype here pretty
18 shortly in '23 as it relates to FLRAA. It is about 85
19 percent built. It is being built that -- you know, and our
20 soldiers are coming back to us and telling us, you know,
21 what needs to be changed. So it is extremely important.
22 This is an extremely important program. It is a program
23 that is required.

24 We are still going to continue to need the UH-60 Black
25 Hawk. We also have the victor model that we are building,

1 a great upgrade to the Black Hawk. But it will -- you will
2 have both of these programs for years to come. So the
3 Black Hawk just won't go away, you know, in 2023 or 2035.

4 We will have the Black Hawk for some time. Will need
5 to sustain the Black Hawk as we move to the future vertical
6 lift. But I think the path that we are on from an AFC
7 perspective, learning to -- flying before we buy is one
8 that we need to continue not only for that program, but for
9 all of our programs.

10 Senator Blumenthal: Thank you. I appreciate those
11 responses, and I -- my time has expired, but I would really
12 appreciate an opportunity to talk with you further, get
13 together at your convenience. Thanks, Madam Chair.

14 Senator Duckworth: Thank you, Senator Blumenthal.
15 Senator Kelly.

16 Senator Kelly: Thank you, Madam Chairwoman. I want
17 to follow up on Senator Blumenthal's questions about future
18 vertical lift and the future attack reconnaissance
19 aircraft. When the Air Force developed the F-35, the A
20 version, they decided not to put the F-35A through an
21 OPEVAL program.

22 As a former developmental test pilot, I still see the
23 value in a thorough and comprehensive OPEVAL for any
24 military aircraft, especially combat aircraft. General
25 Richardson, can you tell us what your plans are for OPEVAL

1 for the future attack reconnaissance airplane?

2 You talked about bringing all this information back
3 from the warfighters and have people go to the factory.
4 But I would like to find out what the current plans,
5 because I heard that you may decide not to put the airframe
6 through a full OPEVAL.

7 General Richardson: Senator, thank you for the
8 question, and I totally agree with you. We are on track
9 with the future attack reconnaissance aircraft. And Mr.
10 Bush can answer these questions, but I can assure you that
11 from a test perspective and an operational evaluation, we
12 are not cutting corners with our aircraft.

13 We are going to have our testers there as it goes
14 through the, you know, EMD, engine manufacturing, and as
15 well as an operational assessment by Army aviators before
16 it gets in the hands of our soldiers. Mr. Bush.

17 Mr. Bush: Yes, Senator. I mentioned it up front that
18 the Army is trying to go faster with programs. However,
19 one area that is non-negotiable is testing, and especially
20 any testing that relates to safety.

21 So that is a charge we have from the Chief, and I take
22 it very seriously. And I was here in Congress, working
23 with members on oversight of F-35. I remember that exact
24 issue. And we are going to do a full OP test program to
25 make sure this is the helicopter the Army needs.

1 Senator Kelly: Okay. Not only safety, but
2 operational effectiveness, the ability for it to do its job
3 in a combat environment. Just got a couple more minutes
4 here. I want to follow up on a question about the Apache.
5 So I was out in Phoenix, might have been about ten months
6 ago now, and I got the opportunity to fly the latest
7 version of the Apache.

8 Some things I really loved about it. There were some,
9 a couple of issues, but it is a great and very effective
10 airframe, and it has been. You know, I think it is the
11 greatest combat helicopter that has ever been built. And
12 the Army has identified the Apache as the number one
13 enduring aircraft for upgrades.

14 But I am only seeing about \$10 million for Apache mods
15 over the next couple of years, and it doesn't seem like
16 there's anything beyond that. How can the Army
17 realistically maintain global attack helicopter dominance
18 for the next few decades without continuing to invest in
19 the Apache program?

20 Mr. Bush: Senator, I will have to check on that exact
21 number you just cited, because that sounds very low, given
22 the importance of that program to the Army. However, I can
23 assure you that, like Black Hawk, we got authority for a
24 new multi-year for Apache from this committee in Congress
25 last year. Greatly appreciate it.

1 We are on track toward that multi-year contract which
2 will provide five more years of production. Along with
3 that should be constant upgrade programs both in the
4 production program, but also just the normal mods we do to
5 address ongoing issues as the aircraft matures and just
6 goes through its paces.

7 So I think if you look at the Army's budget broadly,
8 there is still a very strong commitment to Apache, since it
9 is still, as you cited, the world's greatest attack
10 helicopter. If I could add -- General Richardson, add
11 anything you want to.

12 General Richardson: Senator, I would just echo it is
13 the greatest attack helicopter in the world, and I have
14 flown that for 30 years. And when we look at, from an Army
15 Futures Command perspective, when we look at the Army of
16 2030 and the Army of 2040 that we are looking at today, the
17 H-64 aircraft is a major aspect of our operational concept
18 and how we are going to fight in the future.

19 So I see the Apache sticking around for a while
20 because the future attack reconnaissance aircraft is really
21 our scout aircraft and working together as a team will
22 dominate the forces -- our competitors in the future.

23 Senator Kelly: All right. I have got one observation
24 for my one hour flight time in the targeting system with
25 the monocular -- I think we could upgrade that and make it

1 a little bit more capable. And I will yield back.

2 General Richardson: I agree, sir.

3 Senator Duckworth: I got to represent for the assault
4 pilots, man. Let me just say that there might be a
5 critical mass of people in this room who have sat on the
6 ground waiting to be picked up by an assault -- by a
7 utility helicopter. Would that be true, Senator Cotton?
8 Yes, how many people here sat on the ground -- you waited
9 to be picked up by -- yes, okay. Just --

10 [Laughter.]

11 Senator Duckworth: We are going to do a second round
12 of questions. The vote has been called. I will ask my
13 questions. I hand it over to the ranking member who will
14 then close us out after he is done with his questions if no
15 one else comes. I want to go back to the organic
16 industrial base. This year, the Army published a 15 year,
17 three phase, \$16 billion modernization strategy. This
18 effort refines the Army's priorities and focuses on
19 modernization efforts most critical to supporting current
20 readiness.

21 If implemented and resources planned, it will ensure
22 the Army has the manufacturing and production capabilities
23 to meet current and future requirements, including its
24 significant modernization efforts.

25 My question, Mr. Bush is, what are your thoughts on

1 how to maintain capacity and expertise, that is the
2 critical part, the expertise part, during this significant
3 reduction between periods of contingency operations or
4 robust manufacturing investments? Because that expertise
5 is really easy to lose and really hard to get back.

6 Mr. Bush: Yes, Senator, thank you. I think the best
7 way to keep expertise is to keep them busy doing what they
8 are best at. So that means providing meaningful, critical
9 work for the organic industrial base to do, both the depots
10 but also the arsenals, to ensure that that workforce is --
11 we can maintain it.

12 So when we make decisions on where we are going to do
13 work, it is something I am always conscious of in terms of
14 make or buy decisions. One thing I think we could
15 consider, and Senator Cotton's question regarding how do
16 you balance risk during a -- with the industrial base, is
17 the entire organic industrial base is essentially an
18 insurance policy.

19 We maintain that in case of a short notice
20 contingency, in case there is something the private sector
21 doesn't do. That is why we have the organic industrial
22 base. It is an insurance policy. We could increase the
23 capacity of that as one way to mitigate long term risk,
24 both in terms of the size and amount of activity it does.

25 The modernization plan, as you pointed out, merely

1 modernizes what we have. I think there is a big policy
2 question about the size of it and the size of that
3 workforce, which won't be inexpensive to maintain, but in
4 certain contingencies proves absolutely vital to have in
5 short term, you know, with the short term notice for a
6 large Army fight.

7 Senator Duckworth: Well, so let's get into that. I
8 mean, the Army submitted \$5.1 billion in unfunded
9 requirements. Within that, the Army made a decision to
10 privatize future capabilities at the expense of ongoing
11 modernization efforts of enduring capabilities, leaving
12 just under \$2.5 billion, right, \$2.4 billion for
13 modernization and equipping in unfunded requirements.

14 What are the top modernization projects included in
15 this list? And then, how are you ensuring enduring
16 capabilities receive sufficient priority to support
17 deterrence, or if necessary, emergent requirements? And if
18 you can address how these decisions impact the National
19 Guard and Army Reserves as well.

20 Mr. Bush: So, Senator, I will start and then turn to
21 the team here for some help with the expertise here. So
22 the first part of that question is, if you just look at the
23 Army Chief of Staff's unfunded priority list, it is
24 numbered. It is in order. My personal opinion in terms of
25 modernization things, if you look on there, there are ads

1 for additional SHORAD capability.

2 So we are rebuilding our entire air defense, SHORAD
3 capability almost from scratch. Those additional ads would
4 be very much in my mind for members to consider, but also
5 the Abrams production numbers that are in there also would
6 be a helpful risk mitigator. But also there is one
7 critical research and development line, and that has to do
8 with the missile that comes after Stinger.

9 That R&D would help us accelerate that program to
10 ensure we don't have a gap between current Stinger
11 production and future missiles. So those would be my top
12 three, ma'am.

13 Senator Duckworth: Enduring capabilities for emerging
14 threats?

15 Mr. Bush: Yes, ma'am. So I think -- so I think the
16 budget does strike a balance, and I think we do maintain
17 enough enduring capability, production capacity in the
18 industrial base. That doesn't make it easy for our
19 companies who are doing those projects, but we did really
20 carefully try to strike that balance.

21 If members gathering information identify places we
22 got it wrong, I am happy to work with you and your staff on
23 that to make sure we get it right by the time we are done
24 with this process, ma'am.

25 Senator Duckworth: And then Guard and Reserves.

1 Mr. Bush: Guard and Reserve. Overall, I can just
2 tell you that attention to Guard and Reserve needs, now
3 that I have seen this process from the inside, is -- they
4 are fully integrated in our budget, my part of the budget
5 design efforts, and they are in the room for everything.

6 And we pay constant attention to make sure that that
7 is covered, and their needs are fulfilled. Aviation in
8 particular, I think the Chief has enacted -- informed all
9 of us to make sure we keep the Guard completely integrated
10 and part of our plans, and that they are seeing everything,
11 and they are comfortable with what we are doing. General
12 Richardson.

13 General Richardson: Senator -- I will speak to the
14 Guard. The guard is tied into everything that Army Future
15 Command is doing. I have over 20 National Guard
16 representatives that work full time in Army Futures Command
17 as we look toward the future.

18 And so whether it is aviation, air and missile
19 defense, we work together as a team in describing the
20 future, the requirements, and we work with Mr. Bush and our
21 senior leaders of where these items should be fielded -- we
22 make our recommendations. As it relates to the Chief's
23 unfunded requirements, Mr. Bush is correct. M-SHORAD is an
24 unfunded requirement, and he has three entries within that.

25 M-SHORAD from the start, from an idea until we fielded

1 it, ma'am, was three years. And we fielded a platoon in
2 Europe. We have a directive requirement for four
3 battalions of M-SHORAD in the United States Army. That UFR
4 helps us by those four battalions. The second part of the
5 UFR is the increment.

6 One -- the missile on the M-SHORAD is the Stinger.
7 And so we have different increments, number one, to buy
8 more Stinger. Number two, to fulfill the obsolescence
9 issues that we are having for the Stinger.

10 And I just signed a new requirements document for an
11 upgraded Stinger, which is also a part of it. So, ma'am,
12 to answer your question, M-SHORAD at the top, a CFT program
13 under air missile defense, and I think -- the Chief got it
14 right.

15 Senator Duckworth: Senator Cotton.

16 Senator Cotton: General Richardson, the Secretary,
17 issued a directive last week about Army Futures Command.
18 It appeared to remove a lot of the commands acquisition
19 authorities. Could you explain to me more about that
20 directive?

21 General Richardson: Yes, Senator. I received the
22 memo and I worked personally with the Undersecretary of the
23 Army on the memo. And I will tell you that modernization
24 is a team sport, and a lot of people focus on the materiel
25 aspect. But when you look across the team, our job is to

1 deliver concepts.

2 Our job is to deliver organization, the design of
3 those organizations. So there is more to it than just
4 materiel. I spend a majority of my time on the future
5 organizations and experimentation. The day to day work at
6 AFC is not changing. If you really read the memo, AFC is
7 the engine for Army modernization. And we are the Command
8 that executes Army modernization for the United States
9 Army.

10 We spoke earlier about science and technology.
11 Actually it gave me greater capability. Now I have all the
12 laboratories in the Army under Army Futures Command, where
13 I only had one command. So now I have to integrate and
14 synchronize across five different S&T commands. But we do
15 this as a team. Every day, we are with Mr. Bush's people,
16 they provide oversight. We develop a PLM together.

17 We develop the strategy, the S&T strategy together.
18 So is it -- you know, from an Army Futures Command
19 perspective, we didn't lose any authority in that
20 memorandum? I think we-- it just clarified some of the
21 roles that are already provided in law.

22 Senator Cotton: Mr. Bush, do you have anything to
23 add?

24 Mr. Bush: [Technical problems] -- sorry, Senator. I
25 would emphasize the teamwork part. The Army is a big

1 place. No one command, even as charged, could possibly do
2 all of our modernization. So I think the Secretary wanted
3 to lay out the many different components beyond even what
4 you see here at the table and mentioned General Daly, Army
5 Materiel Command, a vital part of Army modernization.

6 Acquisition authority is in Title X assigned to the
7 Civilian Secretary and then to me from the Secretary. So I
8 didn't really move. It was just -- the Secretary was just
9 trying to clarify to make sure everyone had her guidance on
10 how she wants things to work.

11 And her biggest charge to me is to emphasize the
12 teamwork aspect, and everybody has to work together, and I
13 think that is what is taking place.

14 Senator Cotton: So, I appreciate all those points.
15 What was the problem she was trying to solve? Seems to me
16 that Futures Command has been pretty successful since it
17 stood up on rapidly fielding a lot of different systems.
18 So what was the problem that she was trying to solve?

19 Mr. Bush: Yes, sir. So I believe the key issue was
20 she was making sure was absolutely clear that ultimate
21 acquisition authority resides in the civilian chain of
22 command by law. That was it, sir. And my observations
23 since I arrived a year ago is that there hasn't been a
24 problem there per say, day to day. I think she just wanted
25 to codify how things have been working, certainly since I

1 arrived, which I believe has been in line with the law.

2 Senator Cotton: Okay. I am going to have to go vote.
3 Thank you all. One more thing. Are you all going to name
4 these things? I mean when you get close to the extended
5 range -- artillery --

6 Mr. Bush: Sir, I -- am not.

7 Senator Cotton: You are not going to make a private
8 shoot something called the ERCA, are you?

9 [Laughter.]

10 Mr. Bush: No, sir. And I have ideas on all of those.
11 And actually my goal is for, at AUSA, after I coordinate
12 across the entire Army, to roll out a bunch of new names
13 for things so we have things, as you pointed out, that
14 soldiers can be proud of, from ground vehicles to air
15 defense vehicles to canon systems.

16 The Army traditionally waits a long time to assign
17 names, but that is an Army choice. We could name things
18 earlier to make sure that members become familiar with
19 them. The other services do it. We can do it as well.

20 Senator Cotton: All right. Thank you, gentlemen, for
21 your testimony. Appreciate it.

22 [Whereupon, at 3:43 p.m., the hearing was adjourned.]

23

24

25