

Stenographic Transcript
Before the

Subcommittee on Airland

COMMITTEE ON
ARMED SERVICES

UNITED STATES SENATE

HEARING TO RECEIVE TESTIMONY ON
AIR FORCE MODERNIZATION IN REVIEW OF THE
DEFENSE AUTHORIZATION REQUEST FOR
FISCAL YEAR 2024 AND THE
FUTURE YEARS DEFENSE PROGRAM

Wednesday, April 26, 2023

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5
6 Wednesday, April 26, 2023

7
8 U.S. Senate

9 Subcommittee on Airland,

10 Committee on Armed Services,

11 Washington, D.C.

12
13 The subcommittee met, pursuant to notice, at 2:26
14 p.m., in Room 232A, Dirksen Senate Office Building, Hon.
15 Mark Kelly, chairman of the subcommittee, presiding.

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

1 OPENING STATEMENT OF HON. MARK KELLY, U.S. SENATOR
2 FROM ARIZONA

3 Senator Kelly: The hearing will come. Our witnesses
4 today are here to discuss Air Force modernization. They
5 are the Honorable Andrew Hunter, the Assistant Secretary of
6 the Air Force for Acquisition, Technology and Logistics,
7 Lieutenant General James Slife, Deputy Chief of Staff for
8 Operations, Lieutenant General Clinton Hinote, Deputy Chief
9 of Staff for Strategy, Integration and Requirements, and
10 Lieutenant General Richard Moore, Deputy Chief of Staff for
11 Plans and Programs.

12 I want to extend a warm welcome and thank each of our
13 witnesses for coming before the subcommittee today and look
14 forward to hearing your testimony. Last week, this
15 subcommittee heard from Army witnesses about the challenges
16 in the Army modernization portfolio.

17 And today, as we finish our scheduled hearings before
18 we markup the DOD authorization request, I look forward to
19 hearing from our Air Force leaders about the challenges and
20 the opportunities that we face in modernizing the Air
21 Force. All budgets require careful tradeoffs, and we see
22 that across the Air Force budget request.

23 The question before us today is how well the Air Force
24 strategy in this budget matches our national defense
25 strategy and related modernization imperatives. And I am

1 especially interested in hearing from the witnesses how the
2 Air Force plans to manage its multiple modernization
3 programs in ways that deliver the capabilities that our
4 warfighters need to defeat our most capable adversaries in
5 a timely manner.

6 And we must do this while protecting our taxpayers'
7 dollars and avoiding too much risk to meeting our combatant
8 commanders' requirements. And these should include the F-
9 35 fighter, the B-21 bomber, KC-46 tanker, also a new
10 program to procure the so-called Wedgetail aircraft to
11 replace some of the E-3 AWACS aircraft, and also the
12 Advanced Battle Management System, or ABMS, which seeks to
13 replace the J-8, or the E-8 JSTARS capability, and is the
14 Air Force contribution to the Defense Department's joint
15 all domain command and control program, JADC2.

16 Prompt development and fielding of ABMS and JADC2 are
17 all the more important as the Air Force plans to divest of
18 the E-3 and the E-8 JSTARS capabilities before we are able
19 to field replacement capability. Two other areas I want to
20 draw particular attention to are electronic warfare and
21 combat search and rescue capabilities.

22 The Air Force plans to replace the current fleet of 14
23 Compass Call electronic aircraft with ten newer and more
24 capable EC-37s. According to Air Force's plans, however,
25 we only need six of these aircraft delivered by the end of

1 the Future Years Defense Program, and the Air Force must
2 expedite the delivery of these critical assets, which gives
3 us the ability to suppress enemy air defense through
4 electronic warfare, among other roles.

5 We also need to fully understand the role that Compass
6 Call and EW would play in a potential confrontation with
7 near-peer competitors like Russia and China, and whether
8 the ten planned aircraft will be sufficient, or is it going
9 to be necessary to expand that fleet as we continue to see
10 the PRC investing in their own EW capabilities.

11 Also, I want to emphasize the importance of
12 modernizing and ensuring a robust combat search and rescue
13 fleet of aircraft. This is a capability that makes a
14 difference, literally the difference between life and death
15 for downed pilots, troops, and civilians in dire
16 situations.

17 As the 563rd Rescue Group at Davis-Monthan Air Force
18 Base in Tucson says, they are in the business of making
19 sure someone's worst day isn't their last day. The Air
20 Force's plan to truncate the HH-60 Whiskey program after
21 fiscal year 2023 would leave the Air Force roughly 25
22 percent short of its original plan to modernize the CSAR
23 fleet.

24 So, we need to hear how this reduction in the
25 inventories, you know, for these forces are going to affect

1 the Air Force's ability to conduct CSAR operations in
2 future conflicts, including how it might be impacted by new
3 airframes like Armed Overwatch. The Air Force has been
4 particularly aggressive in implementing accelerated
5 acquisition authorities, including for major defense
6 acquisition programs.

7 Notably, the Air Force began the B-52 re-engineering
8 program under accelerated authorities but has agreed to
9 shift that program back to the normal acquisition process
10 at the next acquisition milestone review.

11 Congress has given DOD these new authorities but will
12 continue to oversee acquisition activities to ensure that
13 the Defense Department uses its authorities appropriately.
14 And we need to ensure that these investments yield the
15 capabilities our nation needs to compete in any future
16 conflicts, such as with hypersonic missiles, the next
17 generation air dominance program, and others.

18 And we can't ignore needs to recapitalize other
19 existing capabilities that give our forces a competitive
20 edge, such as our tanker forces and the fighter squadrons
21 in our Air Guard and Reserve components that represent more
22 than a third of the Air Force's combat power.

23 We will also take into account lower visibility, but
24 high importance capabilities like the investments we need
25 to ensure we have adequate training ranges for our fifth-

1 generation fighters and forthcoming next generation
2 systems.

3 These issues are a personal priority and I look
4 forward to working with the Air Force on the way forward.
5 Our witnesses this afternoon face huge challenges as they
6 strive to balance the need to support ongoing operations
7 and sustain readiness with the need to modernize and keep
8 the technological edge over our adversaries that is so
9 critical to successful military operations.

10 Specifically, our Air Force will bear a large share of
11 the burden of implementing the National Defense Strategy.
12 Perhaps that is part of the reason behind the Air Force's
13 request of a \$12.4 billion budget increase this year -- in
14 this year's budget. There is no ignoring the fact that
15 strategic competition with increasingly capable adversaries
16 is a primary U.S. national security concern.

17 And we need to look no further than the war in Ukraine
18 to see that the world remains a dangerous place with actors
19 who do not always act rationally. And while Russia may
20 have showcased its limitations, we must ensure our
21 readiness to meet challenges that a more capable force
22 could present in the future.

23 And there are a number of other issues that we need to
24 discuss, but in the interest of time, I am going to stop
25 here and follow up during our discussion. Again, I thank

1 our witnesses for their service and for appearing before
2 the subcommittee. I will now recognize our Ranking Member,
3 Senator Cotton, for his opening comments.

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

3 Senator Cotton: Thank you, Mr. Chairman. And
4 gentlemen, welcome. Thank you for your appearance here
5 this afternoon. I am pleased to see that the Air Force has
6 requested 72 tactical fighter aircraft for fiscal year 2024
7 and each fiscal year for the next five years.

8 Despite repeated underfunding by the current
9 administration, this is a good first step towards repairing
10 and modernizing our hollowed-out Air Force. But I am
11 afraid it is the bare minimum our military actually needs
12 as we try to deter a potential conflict with China. Our
13 Air force, unfortunately, has been characterized by
14 shrinking inventories and an aging fleet since the end of
15 the Cold War.

16 We should be producing F-35s at full rate production,
17 ramping up F-15EX production, and proceeding quickly to the
18 development of the E-7 aircraft. This is a matter of life
19 and death for many of our nation's airmen and perhaps one
20 day for our nation itself.

21 I look forward to hearing your plans to get all of
22 these essential programs to where we need them to be
23 despite the fiscal constraints you face.

24 Second, I would also like to understand how you are
25 maintaining the lethality of the Air Force while we wait to

1 field F-35s with Block 4 upgrades, along with the Next
2 Generation Air Dominance Aircraft, Advanced Battle
3 Management System, and collaborative combat aircraft.

4 I am concerned that while we are developing
5 capabilities for the far future, we are not making enough
6 near-term upgrades to aircraft that are currently in
7 service and that will be in service for decades to come,
8 like the F-16 and our fielded bomber fleet.

9 We are dangerously neglecting the upgrades that we
10 need to fight tonight, as the saying goes. I am also not
11 confident that we are prioritizing munitions production for
12 the near or the long-term fight.

13 Finally, the Air Force is already in danger of
14 becoming overextended in a period of peacetime. I would
15 like to know how you are planning to overcome existing gaps
16 in capacity, while preparing to deter China and Russia
17 without exhausting personnel and equipment.

18 I look forward to hearing what you have to say on
19 these topics and others. Thank you again for your
20 appearance.

21 Senator Kelly: Thank you. Senator Cotton. I will
22 now recognize our witnesses for some opening remarks.
23 Secretary Hunter.

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1 STATEMENT OF HON. ANDREW P. HUNTER, ASSISTANT
2 SECRETARY OF THE AIR FORCE FOR ACQUISITION, TECHNOLOGY AND
3 LOGISTICS

4 Mr. Hunter: Well, thank you very much, Chairman
5 Kelly, and Ranking Member Cotton, and members of the
6 subcommittee for having us here to provide testimony on our
7 fiscal year 2024 budget request.

8 Our budget request very much reflects our attempt to
9 align our programs and our resourcing and our decision
10 making with fulfilling the strategy, the national defense
11 strategy. That was absolutely our cornerstone in the
12 fiscal year 2024 budget process. And developing a threat
13 informed future Air Force equipped to win high and fight.

14 Last year, Secretary Kendall and General Brown
15 outlined their seven operational imperatives that we must
16 meet to succeed. And those operational imperatives
17 absolutely drove everything in our fiscal year 2024 POM
18 process.

19 They were the combined work of the entire Air and
20 Space Force teams, combining the best insights of our
21 operators, our analysts, and operational analysis teams in
22 our acquisition enterprise, working together to identify
23 initiatives and priorities. And as a result of this
24 analysis and work, we have over \$25 billion requested in
25 fiscal year 2024 for OI related investments.

1 So overall, our fiscal year 2024 request balances
2 investment in critically needed new capability with the
3 recapitalization and modernization of our existing
4 platforms, as you both identified as a priority. And I am
5 going to highlight just a few key investments in my
6 remarks, and my colleagues will touch on several of the
7 other issues you have raised.

8 Certainly, bomber modernization is a core of our
9 investment portfolio. It is a critical year in fiscal year
10 2024, in our request for production of the B-21. We do
11 have a substantial investment in the largest modernization
12 of the B-52 fleet in the history of the fleet since it was
13 first constructed and built. And we are focused on the
14 parts of our bomber force that are part of our enduring
15 force.

16 I do want to say on E-7, we are working to field E-7
17 as rapidly as possible, and we appreciate the support
18 provided by this committee as well as others with resources
19 and with helping us with the reprogramming request that
20 allowed us to get started early on that program in fiscal
21 year 2023.

22 And the ABMS program, part of our broader command
23 Control Communications Battle Management, or C3BM
24 Initiative, where we have established a new PEO to bring
25 focus to that effort, is a huge priority and we have a

1 substantial resource request for that in fiscal year 2024
2 budget. We ask for your support.

3 I think I will -- if you would, be okay with you, sir,
4 I will probably touch on C-37 perhaps as we get into Q&A.
5 In terms of our top modernization priorities, obviously the
6 F-35 is a cornerstone of our future fighter fleet, and we
7 fielded nearly 400 F-35As today. We are prioritizing
8 fielding the Block 4 capabilities, as was mentioned, and
9 affordability of sustainment is also critical.

10 We are continuing to make positive progress on our
11 F135 engine module repairs with great work by the team at
12 Tinker, and with support from the Congress with resources.
13 And we have significantly improved that item, which was
14 degrading our mission capable rates quite a bit.

15 And we are establishing more realistic affordability
16 targets which will allow us to better prioritize where we
17 focus our resources to improve F-35 sustainment. While
18 crude fighters remain the core of our U.S. Air Force combat
19 power, as well -- along with bombers, a centerpiece of our
20 fiscal year 2024 budget is the Uncrewed Collaborative
21 Combat Aircraft, which will provide new combat capabilities
22 and bring cost effective capacity or affordable mass to our
23 force.

24 The CCA is the single largest operational imperative
25 investment in our budget request, and that is above where

1 we were last year, with over \$6 billion requested across
2 the FYDP. In fiscal year 2024, we are investing more than
3 \$460 million to rapidly begin development of the first CCA
4 platform, and to leverage our extensive work on autonomy
5 that will underpin the CCA capability.

6 We are establishing an operational experimentation
7 unit to work with existing platforms and capable partner
8 nations to prove out the concept of operations for CCA. As
9 we modernize the bulk of our F-22 fleet, and transition
10 from F-22 to NGAD, funds guarded from the divestment of the
11 F-22 Block 20s are being reinvested in NGAD development
12 across the FYDP, and the transition timeline is dependent
13 on the progress of NGAD development efforts.

14 The Air Force is ensuring cost control in NGAD by
15 driving continuous competition for air vehicles, mission
16 systems, software, and by mandating the use of a government
17 owned reference architecture.

18 We are also changing the way we execute highly complex
19 acquisition programs by taking a hands-on approach to
20 digital engineering that accelerates prototyping, drives
21 efficiencies in manufacturing, and reduces cost in
22 operations and sustainment through the use of integrated
23 digital environments for the design and management and
24 sustainment of our systems.

25 The fiscal year 2024 President's budget request

1 funding for aircraft design, development, test, integration
2 of advance mission systems, co-authored development of the
3 government's Agile Mission System Suite, Open Architecture,
4 and Rapid Software Development for the NGAD program.

5 Due to the updated threat environment that was
6 highlighted in both of the chairman and ranking members
7 opening statements, we have made the decision this year to
8 modify our approach to tanker recapitalization, setting
9 aside the three-phase approach that was envisioned in the
10 early 2000s, in favor of prioritizing and accelerating the
11 right capabilities to deliver fuel to the joint force.

12 The next generation air refueling system, or NGAS,
13 will be an accelerated advanced air refueling system that
14 meets the future needs of the joint force and the
15 anticipated future contested battlespace. We will actively
16 consider clean sheet purpose-built designs for NGAS,
17 potentially with aircraft delivered in increments as part
18 of the family of systems that allows the Department of the
19 Air Force to remain flexible and responsive to the ever-
20 changing threat.

21 The program is being designed to leverage continuous
22 competition, which is critical to our approach to the
23 program. We have begun preliminary work towards an NGAS
24 analysis of alternatives that will be completed in fiscal
25 year 2024, and inform NGAS requirements and development

1 timelines, and delivery is expected to begin into the mid
2 to late 2030s.

3 That delivery timeline does mean that there will be a
4 period beyond the current F -- KC-46 contracted deliveries
5 and the beginning of NGAS, and we are working through and
6 have included funding to request a tanker recapitalization
7 effort that will cover those years to ensure continuous
8 delivery of modernized and new tanker capability. Our work
9 with the operational imperatives as just begun.

10 As we begin to implement the recommendations borne out
11 of this work, we are continuing to examine other areas that
12 are cross-cutting operational enablers, such as mobility,
13 and. Mr. Chairman, to your point, also electronic warfare
14 and EMSO, electronic manning spectrum operations.

15 And so, we want to remain in dialog with you on those
16 requirements, those emerging requirements, as we continue
17 that work. This work will leverage and complement our work
18 on NGAS and the next generation air mobility study as well
19 to identify priorities that enable our future operations.

20 More than ever, it is critical the department avoid
21 the delays driven by a continuing resolution. The OIs
22 include multiple new start programs that must begin as soon
23 as possible. We cannot cede any more time on a critical
24 moment in the Air Force's transition to the future fight,
25 and we look forward to working with you on that.

1 I want to close by asking your support for a
2 legislative proposal that was recently transmitted by OMB
3 to Congress that creates a new authority for the military
4 services to respond to emergent technology advances and
5 threats.

6 This authority will accelerate our ability to respond
7 rapidly to a changing security environment with effective
8 Congressional oversight, and I think is directly responsive
9 to some of the concerns that the committee has identified.
10 I look forward to working with you and thank you again for
11 your continued support.

12 [The prepared statement of Mr. Hunter follows:]

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1 Senator Kelly: Thank you, Secretary Hunter. General
2 Slife.

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1 STATEMENT OF LIEUTENANT GENERAL JAMES C. SLIFE, USAF,
2 DEPUTY CHIEF OF STAFF FOR OPERATIONS

3 General Slife: Chairman Kelly, Ranking Member Cotton,
4 members of the subcommittee, thank you for inviting us here
5 today to provide testimony on Air Force modernization in
6 light of the budget request being considered by the
7 subcommittee, Secretary Kendall and General Brown have
8 emphasized the need to make hard choices to modernize our
9 Air Force.

10 The Air Force's component of the fiscal year 2024
11 presidential budget request reflects a delicate balance
12 between the requirements of the present and the
13 modernization needed to ensure our sustained comparative
14 advantage vis-a-vis our pacing challenges.

15 Over the last half century, our Air Force has faced
16 four strategic inflection points at which the strategic
17 environment or the threat changed rapidly and we had to
18 adapt from the Air Force we had to the Air Force we would
19 need.

20 The first of these was in 1973, at the end of the
21 Vietnam War, and the accompanying need for modernization to
22 face down the Warsaw Pact in Eastern Europe. The second
23 was at the end of the Cold War in 1991 and the rapid
24 drawdown of the U.S. military in response to a diminished
25 global threat environment.

1 The third was the attacks on our homeland in 2001 and
2 the need to adapt to the needs for sustained counter
3 insurgency, counterterrorism, and counterviolence extremist
4 operations. We are in 2023 at a fourth strategic
5 inflection point, one which finds us facing unprecedented
6 set of challenges.

7 These challenges include disruptive technologies which
8 don't fit neatly into our traditional views of armed
9 conflict, a landscape in which our pacing challengers
10 employ irregular warfare to counter our traditional
11 strengths, the theft of our most sensitive intellectual,
12 personal -- intellectual property and personal data to be
13 weaponized against us, and emerging domains of warfare
14 which require new doctrines and capabilities to effectively
15 leverage.

16 Just like the prior three strategic inflection points
17 of the past half century, the one at which we stand today
18 requires disruptive and uncomfortable change. But as hard
19 as change may be, losing would be substantially worse.

20 We must change. The budget request being considered
21 by the Congress represents positive change to address the
22 security environment we now face. I look forward to
23 collaborating with this subcommittee as you work to discern
24 a wise response to the budget request before you today.

25 Thank you for your continued support and I stand ready

1 to answer your questions.

2 [The prepared statement of General Slife follows:]

3 [SUBCOMMITTEE INSERT]

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1 Senator Kelly: Thank you, General. General Hinoje.

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1 STATEMENT OF LIEUTENANT GENERAL S. CLINTON HINOTE,
2 USAF, DEPUTY CHIEF OF STAFF FOR STRATEGY, INTEGRATION, AND
3 REQUIREMENTS

4 General Hinote: Chairman Kelly, Ranking Member
5 Cotton, and distinguished members of the subcommittee,
6 thank you for inviting us here today to provide testimony
7 on the Air Force's modernization efforts.

8 I would also like to thank each of you for your
9 continued leadership and dedication to our national
10 security. I am not sure if the subcommittee is aware, but
11 I have five more duty days in a career that spanned 35
12 years.

13 As you can imagine, that comes with many emotions. I
14 feel honored and proud to have served, but I also feel this
15 sense of urgency to push the changes that we need. I am
16 thankful for the opportunity to discuss those changes with
17 you at this important and timely hearing.

18 So, I just returned from the Air Force Academy, where
19 I met with the future leaders of our Air and Space Forces.
20 I know each of you has sent the best from your states to
21 the academies, and I could not be more impressed with the
22 quality of the young leaders getting ready to enter our
23 Force. As I spoke with them, I was reminded of why we do
24 what we do.

25 Our mission at Air Force Futures is to be the voice of

1 tomorrow's Airmen, to advocate for the capabilities and
2 concepts the next generation of leaders will need to be
3 successful. To do that, our Force will have to change, and
4 change is hard.

5 During my career, I have served in the Pentagon under
6 three very different administrations. Despite their
7 differences, I found it remarkable that they arrived at
8 three common conclusions.

9 First, China is the primary challenge. Second, we
10 want to deter, and you deter by being ready to fight and
11 win. And third, for too long, we have privileged current
12 risk at the expense of future risk. That last part is
13 important. Sometimes we think of the future risk as some
14 sort of theoretical concept.

15 What it really means is that we are not handing off an
16 Air force that wins to the next generation. I am not okay
17 with that, and I know you aren't either. This budget helps
18 us get to the change that we need. It is not perfect. No
19 budget is.

20 But due to the leadership of Secretary Kendall and
21 General Brown, we are seeing real progress in our
22 operational imperatives and Force Design. It is not just
23 about increasing capacity and divesting platforms that
24 won't survive if we have to fight.

25 There is real and transformational change in this

1 budget. We are shifting major resources to the new
2 capabilities that will be new used in new ways. For years,
3 we have needed a change-oriented budget. This is it.
4 Thank you for the invitation and I look forward to
5 answering your questions.

6 [The prepared statement of General Hinote follows:]

7 [SUBCOMMITTEE INSERT]

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1 Senator Kelly: Thank you, General. And General
2 Moore.

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1 STATEMENT OF LIEUTENANT GENERAL RICHARD G. MOORE,
2 JR., USAF, DEPUTY CHIEF OF STAFF FOR PLANS AND PROGRAMS

3 General Moore: Thank you, Mr. Chairman. Chairman
4 Kelly, Ranking Member Cotton, and distinguished members of
5 the subcommittee, I echo the thanks of my colleagues and
6 appreciate the opportunity to testify on this year's
7 Defense authorization request for fiscal year 2024, as well
8 as the accompanying Future Years Defense Program.

9 For over 70 years, we have provided air superiority to
10 American Joint Forces, and our allies and partners, and
11 they have rightly come to depend on it. Together, we
12 survived and won the Cold War and we fought the war on
13 terror. But times are changing. While our attention was
14 focused elsewhere, China was watching and learning.

15 Today, we are in the midst of an important transition
16 from a legacy force built for counterinsurgency warfare to
17 one built to deter Chinese aggression and to win against
18 any peer competitor. As you heard from my colleagues,
19 there is still much to do as we continue to posture force
20 for future conflict.

21 What they have described is possible, but time is not
22 on our side and we need your help. Fiscal year 2024
23 presents another opportunity for the Department of the Air
24 Force and the Congress to work together so that we can
25 remain the world's preeminent power projection force.

1 Through the lens of the Department's seven operational
2 imperatives, we aligned our funding request to build a
3 force that will give our adversaries serious pause. The
4 fiscal year 2024 budget request is a strong example of the
5 significant progress we are making towards closing key
6 capability gaps, but the hard choices are not behind us.

7 Today, and through this budget cycle, we ask for your
8 continued support as we seek to move away from several
9 legacy platforms. In the fiscal year 2024 budget, you will
10 see that we are once again requesting to divest our oldest
11 F-22s, the Block 20s, which are not combat representative
12 and never will be.

13 We proposed divesting our aging T-1 fleet as we move
14 towards new and advanced undergraduate pilot training
15 programs. And thanks to the support from Congress, we
16 continue to progress on our A-10 and F-15C divestment and
17 transition plans.

18 Legacy platforms such as these have served us well,
19 but we must be disciplined in our decisions and focus our
20 investments on what we need most. Our most valuable
21 resources, manpower, money, and time, remain limited.

22 We cannot afford to stop short of achieving the force
23 our nation needs. Looking critically at ways to reduce our
24 excess infrastructure to free people and resources for
25 higher priority mission remains a focus of the Air Force.

1 The resources, at least as importantly, manpower,
2 freed in these endeavors will directly contribute to
3 bringing -- to helping us realize our operational
4 imperatives and to deterring aggression.

5 This, however, will take time, and as I have said,
6 time is not on our side. American lives and those of our
7 allies and partners rely on our ability to deliver air
8 superiority, and we cannot fail in this endeavor.

9 Finally, I cannot emphasize enough the importance of
10 an on-time budget. This is critical to keep modernization
11 efforts on track and further discouraging our adversaries.
12 Time wasted during a CR costs us a modernized future force.

13 We must act now to modernize in advance our
14 capabilities, and we look forward to once again working
15 with Congress to shape a lethal force that efficiently and
16 affordably provides the most capable air power for our
17 nation.

18 I am honored to sit here with Honorable Hunter,
19 General Hinote, and General Slife, and together, we look
20 forward to answering your questions.

21 [The prepared statement of General Moore follows:]

22 [SUBCOMMITTEE INSERT]

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1 Senator Kelly: Thank you, General. I am going to
2 turn it over to Ranking Member Senator Cotton for his
3 questions first, and I will be back.

4 Senator Cotton: But I will be in charge until then --
5 [Laughter.]

6 Senator Cotton: General Moore, with the Air Force
7 being plagued by underfunding, shrinking inventories, and
8 aging aircraft, can you explain a little bit how the
9 situation has impacted your ability to focus on both
10 modernization and also the current requirements to fight
11 tonight?

12 General Moore: Yes, Senator. As you rightly point
13 out, there is certainly a balance between current risk and
14 future risk. And we have endeavored to balance what needs
15 to be done to provide a modern force, as well as what it
16 takes to remain ready today.

17 We have received over the last several budget cycles
18 great support from this committee and others to move past
19 the kinds of legacy force structure that aren't supporting
20 our current operations needs.

21 It isn't just the dollars that are freed up by moving
22 away from legacy platforms. One must divest an entire
23 squadron of F-16s to buy a single F-35, or an entire
24 squadron of KC-135s to buy a single KC-46. It isn't an
25 issue of economics.

1 Every bit as important as the dollars, is the manpower
2 that is involved in maintaining and flying legacy force
3 structure. And we need to transition that to, as you
4 mentioned in your opening statement, the force structure
5 that you see in procurement in this FYDP.

6 There will be some manageable risk to near-term
7 ability for capacity, we will say. But there is no zero-
8 risk solution. There is no way to make any kind of
9 transition without taking risk. We have to balance near-
10 term risk and future risk, and we think we have done that
11 in our budget submission.

12 Senator Cotton: General Hinote, would you like to
13 speak to that question? I saw you nodding vigorously on a
14 few occasions.

15 General Hinote: Yes, sir. Ranking Member Cotton,
16 thanks for the question. One of the things I think I can
17 say about this budget that makes me feel more confident
18 than ever is I think we have actually started to move the
19 big money to the future.

20 And I would have told you before, I felt like we had
21 not had been able to do that for lots of different reasons.
22 So, I think you are seeing quite a big change in the '24
23 budget going toward the future capabilities. And that has
24 me thinking we got that balanced much more correct.

25 Senator Cotton: Okay. General Slife, if I did not

1 see you nodding vigorously, but I didn't see you rolling
2 your eyes or expressing any other opinion. Would you like
3 to express one verbally?

4 General Slife: Well, Senator, thank you. What I
5 would offer -- I spend the bulk of my days working these
6 current operations issues. And the demand from the
7 combatant commands is insatiable. They all want more Air
8 Force.

9 But the problem is that unless we can articulate the
10 risk and capacity of our Air Force to the joint force, we
11 will always, as General Hinote said, privilege present risk
12 at the expense of future risk.

13 I am excited about the progress we have made in our
14 service force generation model, which is allowing us to
15 articulate risk and capacity a little better, which in turn
16 preserves the force's readiness, so that as we modernize,
17 we have the force as ready as possible for today.

18 Senator Cotton: All right. And, Mr. Hunter, anything
19 to add? Batting cleanup?

20 Mr. Hunter: Yes, I would just I agree with my
21 colleagues and I would say I think the key enabler for us
22 in the Department of the Air Force in arriving at what I
23 think was a balanced solution, a way to balance that risk
24 was the fact that it was done as an enterprise.

25 That we had all of the various aspects, the

1 operational community and the major Combatant Commands,
2 with the Chief, and with the Secretary, and with the
3 Secretariat, and with the acquisition, the expertise that
4 all these elements bring, including my own acquisition
5 organization, to bear on saying, how do -- you know, what
6 is the reasonable risk we can take in current ops?

7 What is a reasonable program we can put forward to buy
8 down future risk that we can resource and that is
9 realistic, and drive that a solution that everyone could
10 sign up to.

11 Senator Cotton: All right. Thank you. I know that
12 you have done the best you can under very difficult
13 circumstances, but I think the Air Force requires close
14 attention by the committee this year in the defense bill.
15 I want to dig a little bit further now in my time left and
16 in the next rounds on some of these programs.

17 The Air Force has stated that collaborative combat
18 aircraft, also referred to as CCA, are a key component of
19 future force designed to counterbalance the rising costs of
20 new fighter aircraft, allowing the department to procure a
21 large fleet at a lower cost, unmanned wingmen to offset our
22 adversaries' growing arsenals and increased survivability
23 of manned tactical fighter fleets. It has been explained
24 that these unmanned systems will be controlled by manned
25 aircraft.

1 I would like to know if the department is coordinating
2 the required mechanisms for that control across the manned
3 aircraft fleet, and what is the status of that
4 coordination? Mr. Hunter, would you like to start.

5 Mr. Hunter: Yes, we are working very closely with Air
6 Combat Command, the major command, as we formulate our
7 acquisition strategy for the CCA, and of course the
8 requirements that exist and sponsors that General Hinote
9 validates for the Air Force. So, critical to that is
10 looking at what aircraft it will interoperate with and how
11 we achieve that interoperability, and that ability to
12 share, you know, C2.

13 A lot of analysis has been done on that. We think we
14 have a good process for how that should work. There is
15 work to be done in making and demonstrating how it actually
16 will work. And so, we have this operational
17 experimentation unit that has been established where we
18 will work closely with the Australians who have a flyable
19 platform that they are using today.

20 It is not quite exactly -- would necessarily meet our
21 requirements, but it is a very good proxy that we can use
22 to develop the CONOPS for that. But General Hinote could
23 probably speak more to exactly how that is going to work.

24 Senator Cotton: Yes.

25 General Hinote: Yes, sir, and thanks for the

1 question. Sir, you are right in that CCAs will allow us to
2 do something that is fundamentally different. We are going
3 to be able to manipulate risk and impose cost, especially
4 in some sort of great power competition and conflict. What
5 I can tell you is that a lot of analysis has been done, but
6 we are still learning and will continue to learn.

7 So, where I think we are today is we have a good plan
8 and we have a good opportunity for the operators and the
9 acquisition professionals to be able to work together to
10 figure out what it looks like when manned, unmanned teaming
11 becomes real.

12 That is something that has not been totally figured
13 out yet, and that is why I am really happy about this
14 operational experimentation unit that can take what we have
15 learned so far and push it into the future with our
16 tacticians.

17 Senator Cotton: Thank you. Up next, Senator Peters.

18 Senator Peters: Thank you, Senator Cotton. General
19 Moore, the vast distances that our forces need to operate
20 over the INDOPACOM AOR, I think certainly helped to
21 highlight the importance of having a very robust and
22 reliable refueling capability to go through those
23 distances.

24 And I remain concerned that the Air Force challenges
25 with modernizing the refueling tanker fleet, as well as the

1 lack of clarity concerning how that will progress, leaving
2 our forces potentially vulnerable. So, my question for you
3 is, can you speak to the importance of aerial refueling
4 fleet and how the Air Force is working to recapitalize
5 existing refueling squadrons?

6 Particularly you mentioned in somewhere in your
7 opening comments the cost of the KC-46 versus the current
8 aircraft, and particularly how that might be based in the
9 Reserve or Air National Guard squadrons around the country,
10 this recapitalization.

11 General Moore: Yes, I can, Senator. Thank you. I
12 started my career as a tanker pilot and enjoyed every
13 minute of it. I remain concerned, as you do, about the
14 future of that fleet. The youngest KC-135 we own was built
15 in 1964, and in all likelihood, it will remain on the ramp
16 in 2050.

17 So, the number one priority in this portfolio is to
18 ensure continuous recapitalization of the KC-135. We have
19 through 2029 for the last deliveries on the current KC-46
20 contract, and Mr. Hunter and his acquisition organization
21 are working to ensure that we have the ability to continue
22 procuring tankers until we are ready to get to the next gen
23 aerial refueling system, or NGAS.

24 So, we are also, in addition to procuring new tankers,
25 we are continuing to modernize the KC-135. The fuel panel

1 and the associated navigation equipment in the center
2 pedestal have reached end of life, and we will be replacing
3 those over the next couple of years to ensure that the KC-
4 135s remain viable. I have flown the KC-46.

5 It is a fantastic airplane. It has some things that
6 need to be worked at. It has some deficiencies that Boeing
7 is on contract to fix, and they are doing that and we are
8 going to hold them to it.

9 So, we believe we have a viable plan going forward,
10 but it will require continuous supervision and active
11 management, because, as you say, the air refueling
12 capability is one that we can't fight a war without.

13 Senator Peters: The KC-46 is coming into reserve.
14 You know, it is our National Guard where some of those
15 legacy platforms are right now. What do you see a timeline
16 for that?

17 General Moore: So, they are coming in as we speak.
18 There are both Guard and Reserve aircrews flying KC-46s
19 today. There are still two basing decisions yet to be made
20 in the KC-46 enterprise. Both of those are slated to go to
21 the Air National Guard.

22 The percentage of Guard and Reserve forces in the
23 tanker community will remain essentially unchanged. That
24 actually in the Guard grows just a little bit across the
25 future years' defense plan, but it essentially will remain

1 unchanged.

2 Senator Peters: Okay. General Slife, the Air Force
3 recently stood up the 350th Spectrum Warfare Wing in
4 Pensacola, Florida. Based on lessons learned in Ukraine
5 and emerging requirements to support the joint force with
6 cyber, as well as electronic warfare from increased
7 distances that we are going to be facing, do you feel as
8 though the Air Force has the appropriate budget and the
9 strategy for employing next generation cyber and electronic
10 warfare capabilities?

11 General Slife: Senator, I do. With investments in
12 things like active, electronically scanned radars,
13 investments in the E-7, the E-10.

14 These platforms are going to give us the spectrum
15 dominance capability that our crews are going to need to be
16 able to fight and win in the most contested environments.

17 The other thing that the 350th Spectrum Warfare Wing
18 will allow us to do is make sure that we are updating and
19 modernizing the data files that underpin many of our
20 electronic attack programs at the pace that our adversaries
21 are changing.

22 As the threat environment becomes more lethal, our
23 adversaries are changing the techniques that they use
24 against us rapidly. We need the ability to stay one step
25 ahead of them. And that is what the 350th will do for us,

1 senator.

2 Senator Peters: Thank you. And finally, Mr. Hunter,
3 the fiscal year 2024 Air Force budget request includes
4 funding for the procurement of 24 F-15EXs in fiscal year
5 2024, and advanced procurement funding for 24 F-15EXs in
6 fiscal year 2025.

7 Given that the Air Force initially planned to purchase
8 144 of these aircraft but has since walked that back to 80
9 and is now seems to be adjusting to 104, how many F-15EXs
10 does the Air Force actually intend to purchase, and what
11 need is that aircraft filling?

12 As of today, it is our plan to complete the purchase
13 of the F-15EX in fiscal year 2025. So, that would be the
14 number, the analysis has been done to determine that that
15 would be a sufficient force for the purpose for which the
16 F-15EX is being acquired, which is largely to backfill and
17 replace the F-15Cs that are rapidly divesting from the
18 force.

19 So, I think we will have enough when we get to fiscal
20 year 2025. The decision really was though, to accelerate
21 that purchase, to acquire those aircraft as quickly as
22 possible, and that is a case where a decision was made to
23 do that in order to buy down, to the extent that we can,
24 some of the current risk more rapidly.

25 And then we will transition resources once we complete

1 F-15EX procurement into some of the more future focused
2 modernization investments that we have in the portfolio.

3 Senator Peters: Great. Thank you.

4 Senator Kelly: Senator Mullin.

5 Senator Mullin: Thank you, sir. Secretary Hunter,
6 having actually the honor to represent Tinker Air Force
7 Base, you can imagine I am very much invested in the
8 progress of the E-3 to the E-7, AWACS transition. Last
9 year's NDAA included the Air Force \$300 million unfunded
10 priority request to accelerate the transition. Can you
11 kind of elaborate a little bit more on how that money was
12 spent? I know you spoke about it earlier, but more
13 specifically to this.

14 Mr. Hunter: Yes, absolutely. And we very much
15 appreciate the committee's support.

16 So, we were able to, due to the committees approving
17 our reprogramming request, in fiscal year 2023, got the
18 program office stood up and running, in '23, in the same
19 year in which we made the decision to purchase E-7, which
20 was a huge benefit and allows us to avoid some of the
21 delays that could have been caused by a CR last year.

22 And then we worked very rapidly to, once the program
23 office was established, to get on contract with Boeing so
24 that we could start to accelerate as much of the program
25 activity, the engineering work, on the E-7 that we need to

1 carry out as quickly as possible.

2 And so, the resources that Congress provided really
3 helped us to accelerate some of the engineering work. The
4 kinds of things that we have, worked with Boeing to get
5 underway as quickly as possible is -- we have begun from
6 the very beginning and talked to them about the technical
7 data that we will need to acquire for the U.S. Air Force to
8 be able to not only sustain the platform but to upgrade and
9 modernize it, to stay current with the threat, which is
10 especially critical for the E-7, although it is critical
11 for everything, but it is especially critical for the E-7.

12 We will have to work very closely with our colleagues
13 at the FAA on certification of the E-7. We wanted to
14 accelerate the work, the engineering work required to get
15 after aircraft certification as early as possible. It has
16 been certified previously by other countries that are
17 flying the platform, but not for the U.S.

18 So, we wanted to get after that as quickly as
19 possible. And we wanted to get after the software work
20 that will put the E-7 aircraft that we are purchasing in a
21 configuration that works in the U.S. Air Force context with
22 our OMS approach to our software builds. And we were able
23 to accelerate that work thanks to the resources that
24 Congress provided.

25 Senator Mullin: Well, the concern that I have is the

1 lag between when we phase out the E-3s to the E-7s. The
2 timeframe continues to be pushed, but yet we are still
3 staying similar to the same phase out period.

4 Now there seems to be about a three-year lag between
5 where the E-3s leave Tinker, to when the E-4s are supposed
6 to start being delivered -- or E-7s are supposed to be --
7 start being delivered.

8 Are we concerned about that, especially about some of
9 the emerging threats that are taking place today and that
10 there is going to be such a lag between?

11 Mr. Hunter: So, the balance that we are striking
12 there is the E-3s that we are retiring are not in a good
13 position to really engage in the most significant fight
14 that we are posturing to be ready for, which is the
15 INDOPACOM, the potential conflict --

16 Senator Mullin: But do we have to take the place
17 between that four-year lag, because it seems to be --
18 continue to grow. We haven't delivered. General, if you
19 want to --

20 Mr. Hunter: Well, let me just make one point, which
21 is critical to fielding the E-7 as quickly as possible is
22 having those E-3 crews engaged with us in the acquisition
23 system as we work with Boeing to nail down the
24 configuration.

25 But also, they are going to Australia and working with

1 the E-7 community that is flying in Australia. And I,
2 myself had the opportunity to fly on the Australian E-7 and
3 it is very impressive, and they have learned a lot in
4 operating that platform. So, having those crews available
5 is a huge accelerant to fielding the E-7.

6 General Moore: Yes, Senator. We have held the E-3
7 divestiture schedule constant since we laid it in, so it
8 has not changed. And so far, the E-7 delivery schedule has
9 stayed constant as well. So, that gap was programed in on
10 purpose.

11 We have preserved enough capacity in the airborne
12 battle managers, the ABMers in the back to see to the E-7
13 so that it is ready to go. And as Mr. Hunter mentioned, we
14 are even sending them to Australia for training. But there
15 are capability gaps in the airborne early warning portfolio
16 that the E-3 will never fill.

17 So, there is an issue of capacity, but really what we
18 are getting at is capability, and we have to get to the E-7
19 to get that capability gap filled. And the way to get
20 there as quickly as possible was for us to draw down the E-
21 3 fleet in the meantime.

22 Senator Mullin: From when that plan first came
23 through to where we are at today, the threat has obviously
24 increased. Are we trying to really ramp up the delivery
25 time to get the E-7s -- you know, in operable conditions?

1 General Moore: Yes, sir, we are. And you will notice
2 on the Chief of Staff's unfunded priorities list, the
3 number one item is further acceleration of the E-7.

4 Senator Mullin: I saw that. Right.

5 General Moore: What that does is buy a center
6 fuselage section, which is where the radar sits. That is
7 the long lead item for another aircraft as well as early
8 acquisition or advance procurement for two of the radars.

9 So, we are -- we believe that there is some
10 acceleration possible. The first airplane can't come any
11 sooner than fiscal year 2027, but they can come in greater
12 quantity when they do start to come in, and that is what
13 you see is the number one item on the Chief of Staff's.

14 Senator Mullin: I know Tinker is getting ready for
15 it, and they are prepping for it. They are getting hangars
16 ready for it. You know, it is impressive, and so I
17 appreciate the investment that is being made in Tinker and
18 we want to be helpful. So, any way our office can be of
19 assistance in this, please utilize us.

20 General Moore: Sir, thank you.

21 Senator Mullin: Thank you.

22 Senator Kelly: Senator Blumenthal.

23 Senator Blumenthal: Thank you very much, Senator
24 Kelly. Thanks for yielding to me. I am very concerned
25 about the combat rescue helicopter.

1 We went back and forth about this platform for some
2 time over the past few years, and I am particularly
3 concerned that the additional ten combat rescue helicopters
4 that we added last year have been put in backup inventory.
5 I know you have difficult budget decisions.

6 You have decided to terminate the program. We only
7 have 75 out of the 108 that are thought to be necessary.
8 So, maybe you can tell me what your thinking is about
9 terminating that program, when I think we all believe we
10 have an obligation to leave nobody behind.

11 Mr. Hunter: You know, let me just touch briefly on
12 program status, but turn to my colleagues to speak through
13 how we intend to CSAR with the fleet that we are fielding.
14 But appreciate the resources Congress has provided for
15 acquiring HH-60. We still have resources for 20 aircraft
16 not yet on contract.

17 So, we are not terminating, you know -- as a, you
18 know, acquisition term of art matter, the program. We are
19 working through getting those 20 that have been
20 appropriated on contract with Sikorsky. So, that is a
21 decision being made just, you know, imminently in the next
22 several days. So, we will, you know, fully execute with
23 the resources Congress has provided.

24 Senator Blumenthal: Where will that bring us in terms
25 of the number of aircraft?

1 Mr. Hunter: So that will be at 85 total inventory.
2 And I know -- I don't know if you want to talk, Rick, to
3 the inventory question.

4 Senator Blumenthal: 85 out of 108?

5 General Moore: Yes, sir. And we believe that is more
6 than sufficient to do combat search and rescue. There is a
7 big distinction in this portfolio between combat search and
8 rescue and personnel recovery. There are literally
9 thousands of platforms in the Department of Defense that
10 can do personnel recovery.

11 This fleet is for something very specific. It was
12 purchased for Iraq and Afghanistan. It is not particularly
13 helpful in the Chinese AOR. And with that, I will pass to
14 my colleague, General Slife.

15 General Slife: Senator, we recognize the moral
16 imperative, as you describe it, to leave nobody behind.
17 The challenges that much like the infamous attempted rescue
18 of Bat 21 in Vietnam, no matter how dedicated you are, if
19 you are not in a platform that is survivable to the threat
20 environment, you end up losing more people trying to
21 recover somebody than the person you lost to begin with.

22 And so, the challenge we are facing is really how to
23 address the question of how will we do personnel recovery
24 in a contested environment. We are actively looking at
25 nontraditional ways in order to fulfill that moral

1 imperative of leaving nobody behind.

2 But until we can come to a definitive answer on that,
3 I think the one thing we can say is that helicopters -- and
4 I have 3,000 hours as a helicopter pilot. Helicopters that
5 fly 150 knots, refueled by C-130s with a pair of rescue men
6 that ride a hoist up and down is probably not the answer in
7 our most pressing scenarios.

8 And so, I share your concern about this mission area,
9 Senator, and we believe that the force that we have
10 programed bridges the gap until we can develop a more
11 suitable solution for a contested environment.

12 Senator Blumenthal: Well, I assume the nontraditional
13 or more suitable means would be unmanned?

14 General Slife: Senator, that is one of several
15 options that we are looking at.

16 Senator Blumenthal: Well, I would like to follow up
17 on what the other options would be, and whether they would
18 be equally cost effective. Since my time is limited, I
19 want to go on to F-35s.

20 You know, the numbers of F-35, I think are 48 per year
21 over the next five years as compared to the full production
22 rate, which would be 80 aircraft per year. We have been
23 buying F-35s for 18 years now -- 18, will be the 18th year.

24 The production line is stable, but the Air Force is
25 planning fewer than the 60 that would keep the production

1 line stable. Maybe you could talk a little bit about that
2 issue.

3 Mr. Hunter: Yes. We have been working closely with
4 Lockheed Martin, the prime, on production capacity. The
5 most recent Block award is 3 lot block by contract with
6 Lockheed Martin.

7 Essentially keeps them at a production rate of 156
8 aircraft per year. That is for the entire F-35 enterprise,
9 including allies and partners, as well as Air Force and
10 Department of the Navy. And right now, they would be very
11 stressed to produce at a rate beyond that.

12 So, the Air Force purchases that we have planned today
13 will fill -- will largely fill the production capacity that
14 Lockheed has. If we wanted to go to a higher production
15 rate, we would probably have to tool, increase tooling.
16 And one of the significant limiters there is the center
17 body piece -- the center --

18 Senator Blumenthal: So, you are saying that the
19 current rate of buy, it will keep the production line fully
20 at work?

21 Mr. Hunter: What we have in our budget request across
22 the POM, combined with the Navy and the allied purchases --

23 Senator Blumenthal: And so, the allied purchases must
24 be making up for some of the --

25 Mr. Hunter: They are. They are a huge component of

1 the program. And we see that, you know, since the conflict
2 in Ukraine was initiated by Russia, we have had many
3 additional partners and allies make the decision to
4 purchase the F-35.

5 Senator Blumenthal: Thank you. Thanks, Mr. Chairman.

6 Senator Kelly: Thank you, Senator. Secretary Hunter,
7 I want to talk a little bit about the collaborative combat
8 aircraft program that the Air Force is intended to begin.

9 You know, I understand that the Air Force intends that
10 the CCA program would not replace any current capability or
11 platforms but would be an additional capability. And it is
12 intended to provide, you know, the additional missile
13 carrying capacity and firing capability for our fighter
14 forces.

15 Essentially a wingman with no person in the aircraft.
16 So, could you explain how the Air Force can afford to buy
17 additional platforms to carry missiles and carry weapons
18 when right now the budget doesn't really afford the ability
19 to buy enough missiles to -- and weapons to outfit the
20 fighters that we currently own?

21 Mr. Hunter: So, we do have substantial investments in
22 our munitions portfolio and including multiyear production
23 for AMRAAM and the JASSM, LRASM platform. So, we are at an
24 increasing production rates of those munitions as well as
25 JDAM, which by the time that we are fielding CCAs, will be

1 entering our inventory.

2 So, we have looked hard at how do we ramp up
3 production of munitions, recognizing that that will be
4 critical to our ability to deter and to succeed. The CCA
5 in particular, as you see, it brings affordable mass on the
6 platform side. We are also looking hard at our mix of
7 munitions investment and trying to understand how do we
8 have affordable mass for our munitions.

9 So, some of our munitions will get cheaper as we ramp
10 up production and we get more economies of scale in that
11 production. Some of them are so high end that, you know,
12 they probably won't ever be affordable mass. But we do
13 have in our plan munitions that will be at a, you know,
14 unit rate, unit cost that will allow us to scale up
15 production of those weapons.

16 Senator Kelly: Well, Mr. Secretary, that is good to
17 hear. What I also thought I might hear is it is not just
18 about the number of missiles we have.

19 And you did mention that this increases the number of
20 platforms and the tactical advantage that you could gain
21 from being able to, you know, put another platform in a
22 strike package, doesn't have an individual in there that
23 addresses the limited ability to recruit, retain
24 experienced pilots.

25 So, it touches on that problem that we are -- we have

1 to address in recruiting in general. But to have
2 additional capability, especially with someone like AMRAAM
3 coming from a different angle, could be an advantage on the
4 battlefield and help us get air superiority.

5 Can you also give just a quick update on how the
6 development and testing, recognizing that this is not a
7 classified setting, but the development and testing of
8 this, what you are comfortable in saying, and how the
9 warfighter perspectives are being considered and integrated
10 into the program?

11 Mr. Hunter: So, with CCA, we have the benefit that
12 there has been ongoing work for some time with industry to
13 understand what capabilities that they can provide and what
14 timeframe in which they could provide those capabilities.

15 So, we feel like we have a very good understanding of
16 the state of industry, lots of U.S. industry, but also
17 understand there is capability available from partner
18 nations as well. And the CCA program is going to be a
19 fully competitive program.

20 And so, we will invite those that have been working
21 with us in the concept definition phase of CCA to
22 aggressively compete for our initial platform that we
23 expect to field. And we will work to do some prototyping
24 and do test of those aircraft.

25 So, I think you will see a program structure that is

1 very -- it is rapid. I think you will credit that it is
2 rapid when you see the details and, but at the same time
3 gives us that opportunity to really test out what industry
4 is offering in a competitive environment.

5 The last thing I wanted to mention is we are also
6 leveraging the Skyward program from the Air Force Research
7 Lab, which really is focusing on the autonomy end of this,
8 and that will be continuously worked throughout the
9 lifecycle of the CCA from the initial platform, through
10 every one of its iterations. And I don't know if --

11 Senator Kelly: General.

12 General Hinote: Chairman Kelly, as one of the
13 warfighters who has been working with the acquirers in this
14 program, one of the things that I think that Secretary
15 Kendall and Secretary Hunter has done is we are working
16 more closely with requirements programing and acquisition
17 than I have ever seen.

18 And what that allows us to do is iterate in ways that
19 are, I think, very beneficial. This program is going to be
20 an iterative program. We do not know everything we need to
21 know about this, and I can't require what CCAs are going to
22 look like in ten years.

23 I think the technology is moving faster than we can
24 keep up in certain areas. What I am very excited about is
25 we have a plan to incorporate the tactics and the logistics

1 concerns so that we can learn what an organization looks
2 like to fly these, and I really want to complement our
3 acquirers for that.

4 Senator Kelly: Were you iterating on the level 1
5 requirements for this platform, or is it just a --

6 Mr. Hunter: So, we have -- Sorry, that is your line
7 -- yes --

8 General Hinote: We have set the first tranche
9 requirements.

10 Senator Kelly: Okay. And --

11 General Hinote: We do have a threshold and objective.
12 And so, there is a gap between the threshold requirement
13 and the objective requirement, but we have set those.

14 Senator Kelly: You know, it seems like one of these
15 programs where we have got to invent, not just innovate,
16 you know, invent things. You know, somebody recently
17 mentioned the B-2 being in that category of aircraft
18 whereas we developed it, a lot of the technologies weren't
19 currently available.

20 And because of that, we wound up with significant
21 delays, cost overruns. They get rather expensive. I hope
22 in this case, you know, we are aware of it and still try to
23 -- and I see the benefit in this capability. But I also am
24 concerned that some of these technologies might be a little
25 bit big of a leap, and we have got to be -- we just have to

1 be aware of it.

2 Mr. Hunter: Yes. And so, our strategy is very much,
3 we are being very disciplined on our initial requirements
4 set, really scoping based on our work with industry, what
5 we believe is achievable on the timeframe on which we are
6 proposing to field.

7 And then we will -- there will be future increments
8 and that is very much baked into our acquisition strategy,
9 that -- and that is true for the competitors, that those
10 who may not be the lucky winners for initial increments are
11 still very much in the game for later increments.

12 Senator Kelly: Thank you. Senator Duckworth.

13 Senator Duckworth: Thank you, Mr. Chairman. I humped
14 over here as quickly as I could from that vote. Good
15 afternoon to our witnesses. General Hinote, thank you for
16 your years of service, and obviously to your family as
17 well. In this -- gentlemen, in this subcommittee's last
18 hearing, we heard from the Army about its modernization
19 efforts for weapons systems and organizations.

20 I believe that the purpose of DOD modernization is to
21 drive transformation across the joint force. General
22 Hinote, the Marine Corps Force Design 2030 provides a
23 detailed roadmap and vision for what its future force will
24 look like.

25 The document describes methodology for the study,

1 identifies capability, identify capacity, and detail of the
2 gaps, and details of the actual numbers of weapons systems
3 and formations required to achieve the envisioned force
4 design.

5 I know the Air Force just unveiled your future
6 operating concept document last month, which does list key
7 airpower fights. But does the Air Force have a force
8 design 2030 comparable document to share with Congress?

9 And if not, what is informing the service's RTD&E
10 investments, or shaping its recruiting and retention goals?
11 And how does the service measure modernization success if
12 it doesn't have an explicit modernization roadmap?

13 General Hinote: Senator Duckworth, thank you for that
14 question. It is a question that comes up all the time when
15 we talk about force design. So, I will start with, we have
16 unveiled the future operating concept. You might consider
17 that to be a part of the future force design. We also have
18 other things that we are doing.

19 I believe the operational imperatives that Secretary
20 Kendall has us working on are very much a part of force
21 design. They are closing gaps that we need. To get after
22 your question, yes and no. So, we have a process -- and
23 force design is not a 2030 or 2032 one-time thing.

24 What we believe is we have a process, and ours goes
25 out to beyond 2040, and we are constantly updating what the

1 force should look like at any one point in time. Now, you
2 absolutely can snap a chalk line and say in 2030 or 2032,
3 this is what we think it is going to look like.

4 And we have that, and we would be happy to share. We
5 don't have it in a paper form right now. What it is,
6 though, is it is a series of concepts that we can show you
7 and show you the analysis behind them. Unfortunately, that
8 tends to go at a pretty high classification level, and so
9 we would need to be able to show you in a classified
10 setting.

11 Mainly that is because these technologies that we are
12 trying to incorporate into our force design are quite new
13 and we don't want to give our playbook to China. So, and I
14 actually do believe that they could derive some important
15 insights if we were to publish something that -- in an
16 unclassified setting, but we would be more than happy to
17 share what we have with you.

18 Senator Duckworth: I am just concerned that the Air
19 Force has some way of measuring modernization success,
20 right, even if it is benchmarked as opposed to a timeline
21 base. But there is got to be some way that you can measure
22 that success and there is got to be some way that I can do
23 my job here in Congress to make sure that we are keeping
24 track of that.

25 What Air Force efforts are underway to redesign Air

1 Force formations or manning? And General Slife and General
2 Hinote, I think you can both take this. How is new
3 technology affecting how the service organizes its
4 personnel, right?

5 This is followed on to that last question, is you have
6 got to have some sort of a roadmap or plan, and we have got
7 to be able to figure out how your successes are. But then
8 how are you looking at your formation and person
9 organization into the future?

10 General Hinote: Senator Duckworth, you are exactly
11 right. So, I will go very short and then hand off to
12 General Slife. So, as we look and we see the pacing
13 challenge is China, we know that we have to present a force
14 that is different than the one that we have right now.

15 A key component of that is the infrastructure, and we
16 have huge investments in this budget to get after a Pacific
17 infrastructure that allows us to present that force in the
18 way that we need to.

19 And with that, I will hand over the General Slife,
20 because the idea of a new way of presenting the force that
21 is compatible with our pacing challenge and then a new way
22 of generating the force is something that he is leading and
23 making great progress in.

24 Senator Duckworth: General Slife. Sorry I missed
25 pronounce your name earlier.

1 General Slife: No problem. Well, thank you. Senator
2 Duckworth. You have your finger on a question that I spend
3 many hours every week working on. To General Hinote's
4 point about force presentation, just to be plain about what
5 we are talking about, it is what is the element that the
6 Air Force provides, the squadron, a group, a wing -- what
7 is the thing that the Air Force generates and provides.

8 And, you know, the model that we have used for force
9 presentation over the last 20 plus years since 9/11 has
10 been a very ad hoc model. We deploy portions of units and
11 aggregate them in a large main operating base someplace in
12 the Mid-East and project air power from a largely secure,
13 largely fixed main operating base.

14 We have been able to get away with that because our
15 adversary hasn't pressured us in the way that we think
16 future adversaries can and will. And so, as we look at the
17 future operating environment, we recognize that we have to
18 be much more agile.

19 We have to be much more focused on those -- what the
20 rest of the Joint Force would call combat support and
21 combat service support elements and how those things are
22 packaged and generated in order to provide the platform
23 from which we can project air power.

24 So that -- developing that force presentation model
25 for the future is an enormous part of what I am working on

1 right now. What I can tell you is that, and General Moore
2 may be able to provide some of the programmatic detail
3 underpinning this, is we have made significant investment
4 in the budget before the subcommittee today, significant
5 investment in the capabilities we will need to support
6 those agile combat employment type operations.

7 You know, we have unit equipped ourselves to operate
8 out of main fixed operating bases. And you know, we may
9 not need the 1.21-gigawatt generator. We may need some,
10 you know, 50 horsepower Honda generators that are much more
11 mobile and enabled to be used in much smaller formations.
12 And so, we are well ahead on that.

13 Senator Duckworth: That leads to -- I am over time
14 but can -- I have more questions here. Let me keep going
15 till you cut me off. Thank you. General, did you want to
16 add something to that?

17 General Moore: Ma'am, I would just say in our
18 operational imperative, in the U.S. Air Force's operational
19 imperative portfolio, you will see that what General Slife
20 was talking about is the number two investment.

21 Collaborative combat aircraft is number one, and there
22 is over \$5 billion, of course, across the future years
23 defense plan for pre-positioned equipment, repair of
24 runways and fields that we haven't used since World War II,
25 camouflage, concealment, and deception, and then the

1 continuing sustainment tail that provides all of that into
2 the future.

3 Senator Duckworth: This is exactly what I am deeply
4 concerned about, right, especially going into the Indo-
5 Pacific. It is a very different way that we are going to
6 be projecting our force into that region as opposed to
7 EUCOM, you know, European command.

8 And I mean, I understand the AFFORGEN is supposed to
9 provide a balanced and predictable fourth generation model,
10 especially if you are looking at the geographic combatant
11 commands.

12 But does the fourth-generation model work for all Air
13 Force units? And also, how do you balance the demands --
14 the difference between what you need in Europe versus Indo-
15 Pacific?

16 General Slife: Senator, the Air Force's force
17 generation model conceptually is a good model for all of us
18 to think about, but it applies unevenly across the Air
19 Force. The reason for that is because some forces have
20 been assigned to combatant commanders, and the Air Force
21 doesn't generate those forces. They are assigned on a day-
22 to-day basis to the combatant commander.

23 So, you can imagine we have an F-16 squadron in
24 Spangdahlem, in Germany, for example. And, you know, if
25 General Cavoli, the EUCOM Commander, wants to employ that

1 F-16 squadron, I don't have the ability to tell them, hey,
2 sorry, they are in force generation right now, we will be
3 back in 18 months when they are available. I mean, that is
4 an unacceptable answer.

5 And so those combatant command assigned forces are
6 going to be employed by the combatant commander as they see
7 fit. The F4 gen model that you are talking about is really
8 for those forces that the institutional United States Air
9 Force generates and deploys in support of those emergent
10 requirements where combatant commanders ask for and need a
11 fighter squadron over here -- I need a tanker over here.
12 Those are the forces that we generate.

13 Senator Duckworth: Thank you. So, moving on to the
14 equipment, right, as we are looking at INDOPACOM and some
15 of the new challenges -- Secretary Hunter and General
16 Moore, I think this probably comes to you.

17 Secretary Kendall submitted a legislative proposal
18 that provides a service rep acquisition funding
19 authorities. I absolutely understand you need to be agile.
20 We have new stuff coming out. and we need to be able get
21 to it quickly. And the funding authorities is to initiate
22 new start development activities of emergent technological
23 advancements up to \$300 million.

24 Both NGAD and the next gen air refueling system, NGAS,
25 require significant technological advances in order to

1 become successful. How does this proposal from Secretary
2 Kendall reduce the risk for development of NGAD and NGAS?
3 Are there other areas in which these proposed authorities
4 would be helpful?

5 Mr. Hunter: Yes, I think there are absolutely other
6 areas where it would be helpful, and I think we could use,
7 you know, NGAD or NGAS as an exemplar. As we sit today,
8 those programs are underway, and they are at a -- well, at
9 least NGAD is at a stage beyond what our legislative
10 proposal would apply.

11 So, I don't see us using it necessarily with NGAD
12 because of the fact that it is already, you know, well on
13 its way to -- as a program. But in principle, right, a
14 similar idea applies in that those programs came out of a
15 recognition of a change in the threat environment.

16 In order to respond to that change in a threat
17 environment, we understand that we have work to do,
18 engineering work and technological work to find a solution
19 and then field it as rapidly as possible.

20 So, what the legislative proposal is designed to do is
21 allow us to engage in early-stage engineering in the year
22 of execution, with Congressional oversight and approval,
23 without having to wait for a full year appropriation bill,
24 which may be months or even in some cases years away, that
25 we would then have to wait until we receive those funds.

1 Senator Kelly: Secretary, I am going to ask you to
2 pause there for a second. Senator Duckworth, I am going to
3 turn it over to Senator Cotton, and then we will come back.

4 Senator Cotton: Mr. Hunter, I would like to talk
5 about logistics. The only way we can help to deter
6 aggression and win any potential conflict in the Western
7 Pacific in particular is by ensuring our logistics are
8 second to none.

9 That includes not just our munitions and fuel, but
10 also the spare parts that are necessary to keep our
11 aircraft flying. But reports from the GAO paint a pretty
12 bleak picture of aircraft logistics, with the Air Force
13 missing their mission capable rights for almost every
14 aircraft every year, meaning that our aircraft aren't
15 available to fly their required missions for a significant
16 portion of time.

17 This includes the F-35, which only had a 38 percent
18 for mission capable rate in 2021. And the C-5, which has,
19 according to a report, exhibited increasingly low aircraft
20 availability and mission capable rates over time.

21 A major contributor to this issue was identified as
22 spare parts. If this is the state of our logistics in
23 peacetime, I am troubled what it would look like in wartime
24 when logistics are truly stressed by our own demands and by
25 enemy action.

1 Do these logistics challenges delay our ability to
2 rapidly modernize our fleet, Mr. Hunter, since we have
3 aircraft unable to fly and test new systems? And also do
4 the challenges impact pilot production and training?

5 Mr. Hunter: Senator, they absolutely do impact pilot
6 production and training. In fact, that our current
7 challenge with pilot production is very much tied to the
8 challenges with sustaining the T-38 platform, which is one
9 of the linchpins of our pilot production approach.

10 A lot of that is driven by the age of our platform. A
11 lot of it is driven by the engine which we are engaged in
12 substantial work to help us manage through the current
13 spare parts shortages, finding new sources of supply and
14 second suppliers for those that may have shut down
15 production in order to keep that engine operating until the
16 T-7 is fielded, which will have a modern engine and we
17 won't have quite the same challenge.

18 So, it is absolutely an impact on pilot production.
19 Impact on fielding of capability is a little bit dependent
20 on the platform. And in some platforms, our test capacity
21 is very constrained and is a constraint on how quickly we
22 can move. In some cases, that is where we are doing our
23 greatest degree of modernization.

24 So, for example, the B-52 is one where the extent of
25 modernization on the B-52 is so large that it is, you know,

1 it is a challenge to the capacity of the test fleet for
2 that platform. When it comes to the F-35, it is a slightly
3 different challenge. Right here, we don't have really old
4 stuff. This is new stuff.

5 And in fact, one of the things that challenges there
6 is, we were slow to stand up depot capacity, initial depot
7 capacity for the F-35. And that meant that when a part
8 broke, instead of going to depot and getting fixed and
9 coming back, we had to buy a new part.

10 And we can actually, you know, we can repair parts,
11 generally speaking, faster than we can buy new unless --
12 you know, unless they are off the shelf. So, that has been
13 a big constraint and has driven a lot of our non-mission
14 capable for supply dynamics on the F-35.

15 But starting about a year ago, the department
16 committed to stick to the plan on depot stand up. And
17 instead of diverting resources from depots into new
18 aircraft production, we held the line. And with the help
19 of Congress because you obviously provided funds for
20 additional aircraft purchases, which made it easier to
21 continue our depot stand up activities.

22 So, we are actually now starting to burn down some of
23 that challenge on parts for the F-35, but it is going to
24 take us time to get there.

25 Senator Cotton: Okay. General Slife.

1 General Slife: Senator, thanks. I would just point
2 out, much of what you are describing as what we call weapon
3 system sustainment funding, which funds many of our
4 repairable depot activities.

5 A lot of the modernization, for example. This budget
6 that is before you today is the highest in terms of the
7 percentage of our WSS requirement that is funded since
8 2009. So, this issue that you have highlighted is
9 absolutely an issue.

10 It absolutely affects pilot production. It affects
11 the number of hours that crews are flying in our
12 operational units. We recognize the need to get over it.
13 And so, I think you will see a stair step approach to
14 improving our weapon system sustainment funding over time.

15 Senator Cotton: Yes. And the F-35 is moving to a so-
16 called performance-based contract soon, is that correct?

17 Mr. Hunter: So that is in work. Notionally, the
18 current sustainment contract would finish around the end of
19 this year, and we would put in place that next contract
20 structure. We are working hard to have it be the case that
21 that next contract structure is a performance-based
22 logistics contract.

23 But as you probably know, there is a Congressional
24 mandate that says we have to be able to certify that that
25 PBL approach would meet certain benchmarks in terms of cost

1 and performance.

2 And we obviously, we have to get there, working with
3 the supplier. So, my hope and my expectation is we will
4 get there. But if we can't get there, then we will not
5 bring a PBL contract back that doesn't meet the
6 requirement.

7 Senator Cotton: And would you expect to extend that
8 approach to any other aircraft?

9 Mr. Hunter: Well, we do have performance-based
10 logistics contracts on several of our platforms. And I
11 would say across the Air Force, we are probably not the
12 largest user across the Department of Defense compared to
13 some of the other services, but it does work in certain
14 cases.

15 You know, we obviously have to meet our statutory
16 requirement for the organic industrial base. And most of
17 our platforms that we are currently bringing on board, we
18 are planning for organic sustainment.

19 So, KC-46, B-21. So, most of my focus, honestly, is
20 on making sure that that we stand up the organic depots,
21 and we haven't been going after a lot of new PBLs in the
22 Air Force.

23 Senator Cotton: Thank you.

24 Senator Kelly: Right. Secretary Hunter, I want to
25 talk a little bit about the Compass Call aircraft. We have

1 been pursuing a program to replace these EC-130s with the
2 new EC-37. And this program is slated to replace 14 EC-130
3 aircraft with 10 brand new EC-37s.

4 In budget justification, Materiel indicates that we
5 will only have 6 EC-37s from the program by the end of the
6 future years defense program. And this is only because
7 that -- I was able to push for fund procurement of four
8 additional airplanes last year.

9 Secretary Hunter, what steps could we take to
10 accelerate recapitalization of this important capability?
11 And are there ways to shorten the timeline in a responsible
12 manner on this? And if there is, by how much could we
13 shorten the timeline?

14 Mr. Hunter: Well, Senator, I appreciate the support
15 that Congress has provided on this. There is a little bit
16 of an issue of where the window applies when it comes to
17 future years defense program.

18 So, the four aircraft that Congress has appropriated
19 dollars for that -- in addition to the six that you saw
20 that we will deliver within the FYDP, there is one that is
21 right on the dividing line. So, the number seven is right
22 on the dividing line of where the FYDP ends and the next
23 FYDP begins.

24 And then the other three are just after that window.
25 So, all ten will deliver. Some of them are coming, you

1 know, some months after the kind of end date of the current
2 FYDP. So, I didn't want you to think that those aircraft
3 are not happening. They are absolutely happening and will
4 deliver. Just so happens they are just outside the FYDP.

5 And that is a long fuse from when you have
6 appropriated the funding to us to when those aircraft will
7 deliver.

8 So, I will have to look into why that timeline is that
9 long. You know, this is one case where we are going and
10 acquiring used aircraft because the production line had
11 closed. And that does add some time and complexity versus
12 an aircraft that you can just buy off the line.

13 Senator Kelly: So, what is the risk -- and maybe the
14 General Hinote, or General Slife, or even General Moore
15 could comment on what is the risk of conducting the mission
16 with fewer aircraft?

17 General Hinote: Chairman Kelly, right now, Secretary
18 Kendall has us looking at the -- what are we going to do
19 about electronic warfare in the future. And this is one of
20 the questions that we are asking ourselves, is how many do
21 you really need?

22 Where I think, we are going to go from a design point
23 of view is we are going to use the EC-37 as a pathfinder
24 for the open mission systems that we will proliferate
25 throughout our platforms. That will include platforms we

1 could talk about in here and some that we can't. Those
2 will be distributed in the battle space.

3 And the things that we are able to develop through the
4 EC-37 and the Spectrum Warfare Wing that we talked about
5 before, because we are going to be using software defined
6 apertures, we are going to be able to distribute out the
7 electronic attack capabilities, or not.

8 And we will have to make some choices about where we
9 will have to go. If that doesn't work, then I think we
10 should go back and reassess where we are with the EC-37.

11 If it does work, it can be incredibly powerful by
12 distributing all of those electronic attack capabilities in
13 a way that I think would be very difficult for any
14 adversary to counter. So, we have got some.

15 Senator Kelly: Is there a timeline to make that
16 decision?

17 General Hinote: Yes, sir. We need to get some EC-37s
18 in the air and see how they are working. And we also need
19 to do a very solid threat analysis as we get them in the
20 air versus the waveforms that we are going to field. That
21 hasn't been done yet.

22 We are -- in fact, we are working on those with the
23 new group that is studying the holistic electronic attack
24 across the Air Force.

25 Senator Kelly: When I joined the Armed Services

1 committee, one of the big surprises that I experienced was
2 when I found out the Air Force only had initially 14 EC-
3 130s, you know, doing this mission.

4 When you look at the Navy and even the Marine Corps,
5 you know, had -- the Marine Corps had probably a squadron
6 and or two and the Navy had one in every air wing. So, it
7 seems like a more substantial capability. Obviously, the
8 way we operate the Air Force and the Navy are different.

9 But this is a capability that I believe we all
10 recognize that our main adversaries are -- they do well and
11 have been making some significant advancements in. So, I
12 think it is important that we pay really close attention to
13 this.

14 And I find the distributed EW capability an
15 interesting idea, but we are going to have to see if we can
16 actually implement that. Senator Duckworth.

17 Senator Duckworth: Thank you, Mr. Chairman.

18 Gentlemen, I am going to continue on my joint -- my joint
19 force train of thought. I know that the ranking member
20 earlier asked a question about the CCA, the collaborative
21 combat aircraft and its operability across the Air Force.

22 At this month's Sea, Air, and Space Conference, the
23 Navy actually highlighted its cooperation with Air Force in
24 CCA development and even previewed the ability of the Navy
25 to control Air Force CCAs and vice versa.

1 Secretary Hunter, how closely are you working with
2 your counterparts in the Department of the Navy to build
3 interoperable weapons systems while not creating a whole
4 bunch of new requirements that result in program delays or
5 cost overruns?

6 And also, how do you balance that interoperability
7 with the speed necessary to field new technology? And
8 importantly, how and when will you demonstrate to Congress
9 to progress that -- in these truly joint service CCAs? So,
10 it is sort of a three-part question there.

11 Mr. Hunter: Well, I would like to believe that we are
12 demonstrating it today in terms of the work that we have
13 done on the front end to plan the integration of our
14 approaches. And that is very much the case.

15 So, the reference architectures that are the
16 foundation of the underpinning of all our programmatic
17 efforts tied to CCA, the Navy has indicated in testimony to
18 me directly, but in testimony to Congress, that they are
19 adopting the same approach, the same reference
20 architecture.

21 So that will dramatically improve our efforts, right.
22 There is efficiency in it, but there is also power in it,
23 particularly with industry, because it -- for all of those
24 capability providers out there who have innovative
25 technology to bring, right, the market space has just

1 doubled for them, so it becomes an even more attractive
2 target for investment. And I am seeing that response from
3 industry.

4 Their engagement level has been exceptionally high
5 because they see that we are working closely together and
6 giving them common approaches. Maybe not exactly common
7 requirements, but very common approaches to how they can
8 leverage technology. So, we are doing that on the front
9 end.

10 We are also leveraging each other. So, the Navy -- it
11 is not all. They are using our stuff, right. The Navy has
12 quite a bit of work put in, particularly on things like
13 comms and secure communications, that we can leverage and
14 intend to leverage and are leveraging in our CCA approach.

15 Also because of their work on the MQ-25, you know,
16 they are going to have some systems that could potentially,
17 you know, contribute information about how do we operate
18 some of these uncrewed systems in a reasonable way.

19 And then in other programs, I would say across the
20 whole swath of our programs, we are trying, working hard to
21 integrate our approach, and I think it is a very good news
22 story.

23 General Hinote: Senator Duckworth, can I add for the
24 --

25 Senator Duckworth: Please --

1 General Hinote: -- from the warfighter side. So, I
2 have definitely been in contact with my counterparts
3 throughout the Joint Force. And one of the things that is
4 quite different right now is that we have a joint
5 warfighting concept that we can all reference, wargame
6 together, learn from, and require to.

7 And that is just fundamentally a different thing. And
8 there is a real momentum behind this joint warfighting
9 concept. And so, one of the ways that we have been able to
10 work together in this CCA environment is to agree upon
11 whether it is we want to do with them, at least at first.

12 And so, the Joint Staff sponsored a major war game
13 last summer, I had the chance to participate. And one, I
14 could say without giving too much away, one of the star
15 players was the CCA, not only for the Joint Force, but also
16 for the combined force, because the Australians
17 participated in that war game as well, as well as the UK,
18 and both of them brought their concepts for CCAs in.

19 I think the idea that they have to be interoperable,
20 you mentioned that the Navy could control our CCAs and vice
21 versa -- we all agree on that, 100 percent. And because,
22 and as the Secretary Hunter talked about, we were able to
23 adopt communications standards between us, that is going to
24 be so much easier to do.

25 But what -- I don't know that I have seen a capability

1 that converged as fast across the joint force as what the
2 CCAs have under the joint warfighting concept. So, we feel
3 very good about investing as much as we have, and we are
4 investing quite a bit.

5 Senator Duckworth: Is it slowing down the speed for
6 fielding new technology? I just want to make sure that we
7 are balancing things out.

8 I just think back to the days of the F-35, right,
9 where we develop an aircraft that then actually couldn't
10 land on a carrier, right, because the tailhook was not in
11 the -- was, you know, that the distance from the landing
12 gear, the tail was not appropriate, right, so that slowed
13 everything down.

14 I am all for interoperability. I think it is great.
15 I just want to make sure that we are handling that balance,
16 that we can still field the new technology as rapidly as
17 possible, but also maintaining that interoperability part.

18 Mr. Hunter: Yes, I would say it is central to our
19 approach to CCA, both with partner services but also with
20 partners and allies, that we are not envisioning this where
21 we all have to buy the same thing, or all from the same
22 manufacturer.

23 And so, the power of these government reference
24 architectures is they are, by design, able to integrate and
25 interoperate, even if they come from different

1 manufacturers, produced in different countries, bought by
2 different services, and have slightly different mission
3 roles.

4 But the integration of the architecture, reference
5 architecture level, and in the standards that are, you
6 know, that support that architecture will enable the kind
7 of interoperability and the efficiency.

8 And as I said, from the industry side, it creates a
9 much bigger market space for them to compete for, which
10 helps us drive that continuous competition, which is
11 fundamental to our strategy to get there rapidly and to
12 innovate over time.

13 Senator Duckworth: Thank you. I just want to ask the
14 ranking member, I know we are waiting -- the chairman went
15 off to vote and he is going to come back. I have another
16 question, if you are -- I don't know if you wanted to ask
17 additional questions.

18 Okay, thank you. This is now, I am going to go up to
19 a very macro level. How does the Secretary of the Air
20 Force's operational imperatives support the joint force?

21 You know, can you comment on the efforts in your
22 budgets where you can -- where those efforts are supporting
23 the joint force? Give some examples.

24 General Hinote: Yes, Senator Duckworth. In fact, I
25 believe the operational imperatives are truly imperative

1 for supporting the joint force. I don't think the joint
2 force wins if we don't close the gaps represented in the
3 operational imperatives.

4 I will start with the first operational imperative,
5 which is space. I have never seen a scenario where the
6 joint force is able to win if we lose access to space. It
7 is that important. It is a prerequisite for victory.

8 And so, what you see is that we are investing in
9 resilience in ways that we have not invested before, and we
10 are able to proliferate the capability across different
11 orbital structures as well as just across things like low-
12 Earth orbit and the ability to use both commercial and
13 military satellites as well.

14 But that is just one of many. So, when you look at
15 operational imperatives two, three, and four, we are really
16 talking about our kill chains and how our kill chains come
17 together. And I don't mean Air Force kill chains, I mean
18 joint kill chains.

19 The core of the joint kill chains are represented in
20 operational imperatives two, three, and four, as is the
21 keys capability. And it is, again, not an Air Force
22 capability, a joint capability to establish air
23 superiority, even just for windows of time. Because we
24 know that China has invested well, they are worthy
25 adversary, and we are going to have to fight very hard.

1 That being said, two, three, and four can really help
2 us when it comes to bringing the joint force together,
3 aggregating to do the job, and the job that we are
4 preparing for is to stop aggression from China.

5 So operational imperative five gets after the
6 infrastructure that we were talking about and the ability
7 to operate off of these airfields. So, not only does it
8 include things like refurbishing runways and proliferating
9 the amount of bases that we can use, it also talks about
10 pre-positioning and deception and other areas that help us
11 in that.

12 So, for many, many years, we have been the source for
13 the Joint Force for Deep Strike and operational Imperative
14 six gets after a new way of doing Deep Strike around the B-
15 21 but making the B-21 better. Unfortunately, that is
16 about all I can say here, but happy to go into it in
17 another forum.

18 And then operational imperative seven gets after the
19 fact now that no matter where we are, we might be in your
20 home state getting ready to deploy, or we might be on a
21 Pacific Island somewhere, but anywhere in between, we are
22 going to be resisted. And some of that resistance will be
23 non-kinetic.

24 We will have cyber-attacks. There will be -- they
25 will use space in a way that will make it very hard for us

1 to move our logistics, what we expect to do, and they will
2 try to slow us down in communication, being able to talk to
3 each other. But as we get closer, they will start using
4 everything in their portfolio and that will include
5 kinetics as well.

6 So, what operational imperative seven does is it
7 examines our across the board ability to go to war and
8 identifies the vulnerabilities. Now, the first step in
9 closing of our ability is realizing they exist. We are
10 finding a bunch, as you can imagine, but we are
11 prioritizing them and knocking them out through operational
12 imperative seven.

13 So, to go back, where I think the Joint Force benefits
14 from the operational imperatives is that with the joint
15 warfighting concept that I referred to earlier is doable.
16 You can achieve it if we close those operational
17 imperatives.

18 And what I think that means is that even in the most
19 difficult scenario, if you might think of a South China Sea
20 scenario or a Taiwan defense scenario or helping Japan
21 defend against China, those are tough scenarios.

22 You have to go a long way to win those scenarios. But
23 even in those scenarios, if we can close the gaps in the
24 operational imperatives, it allows the joint force to come
25 together. It is almost like we are the glue of the joint

1 force.

2 We bring it together to accomplish the mission. And
3 one of the reasons why I am more optimistic than I have
4 been in a long time is because we are actually investing in
5 getting after these gaps.

6 Senator Duckworth: Expand that to the combined force.
7 You know, especially if you are looking at the Indo-Pacific
8 region, right. You mentioned cyber, for example, and also
9 space, where the disruptions are going to come from.

10 We need to be sure, I would think that our allies are
11 able to maintain cyber. And not just allies and partners,
12 but also commercial partners that we are going to be
13 relying on, especially when it comes to logistics in a
14 contested environment. What are you doing there, and
15 expand your discussion to the combined --

16 General Hinote: Yes, ma'am. So, certainly, from the
17 combined point of view, we see the ability for us to fight
18 together, to be integrated as being the key. It is
19 something we bring that China won't have.

20 And we have great allies and partners. And one of the
21 things that has been a real joy for me is working with my
22 counterparts in places like Australia, the UK, Japan,
23 coming together and figuring this out. I will tell you,
24 one of the things I have noticed recently is how serious
25 Japan is about its defense. I think there is a major

1 change there. It is a positive change for us.

2 And we have always had a very close relationship with
3 the Japanese Self-defense Forces, but now it is just going
4 to that next level. Very happy about that. And that
5 allows us to plan together and it allows us to understand
6 how they are going to fight and how we can communicate with
7 them, command and control, in a way that is fully
8 integrated, so we are truly a team.

9 To get after the commercial side, that is a tough
10 challenge. And as you know, a lot of the computer systems
11 that we have in our industrial base are unclassified and
12 they may or may not be updated with the best software and
13 things like that.

14 So, as we look across that vulnerability, we see that
15 there are key gaps we have to close and we are working with
16 the companies to close those. But also, we know there is
17 more to be done. And it is not just a military effort, it
18 is a whole of nation effort, and we know that China is
19 going to test us in this area.

20 I think we need to get ready for it. And I believe
21 that people are waking up to the seriousness of that threat
22 and they are asking for help.

23 Senator Duckworth: I think the commercial side is
24 where we have some real potential challenges. You know, I
25 remember I was touring, when I was in Congress, a civilian

1 contractor that had the contract to make lights more energy
2 efficient on a major maneuver command in the Army. And I
3 went to visit.

4 And they were very proud because they got this
5 contract, small company, engineers and everything. And
6 they are like, look, let me show you how I can turn the
7 lights on and off at this major maneuver command in Texas.
8 And they were showing me how they were lowering it on this
9 laptop.

10 And I said, is that a secure laptop? Because we just
11 walked into this room and it was just left sitting there.
12 And they are like, oh, no, no, our chief engineer has a
13 TS/SCI so it is okay. But the laptop is sitting there and
14 they are very proudly showing me how they could, like, dim
15 the lights and brighten the lights to save energy, but do
16 you understand the implications of what you are talking --
17 and they, you know, they were -- they just cared about
18 energy efficiency.

19 So, there are -- I think, the commercial sector is
20 where we are going to have some real challenges. And I
21 also think, on top of that, you could also address, you
22 know, you talk about Japan and UK and Australia, but, you
23 know, there are other nations we have to deal with that may
24 not be quite there, Indonesia, Philippines, you know,
25 Thailand. I think that part of cyber, it is equally

1 important to bring both those friends and allies along.

2 Mr. Hunter: Well, I am going to talk mostly to the
3 commercial part of the question, and I will just say, you
4 know, things are moving fast.

5 So, on the Philippines, I am now roughly one year in
6 office, and that has been a huge shift in that -- just in
7 that one year of my current service. But on the commercial
8 side, I would say we have forged very strong relationships
9 that you might not have predicted three or four years ago
10 with a lot of our commercial partners.

11 And that is true in commercial space. It is very much
12 true in commercial networking and advanced compute
13 capabilities, including folks helping us substantially to
14 field robust, secure, cloud-based networking capabilities,
15 which will enable us to do the kinds of things you were
16 talking about, but securely for those kinds of critical
17 capabilities, of which we have many.

18 Senator Duckworth: Mr. Hunter, do you want to speak
19 to some of our other partners out there or some of the
20 nations where perhaps they need a little help moving their
21 cybersecurity along? You can always get back to me on it.

22 Mr. Hunter: We can get back to you --

23 Senator Duckworth: Okay, thank you. Senator Cotton.

24 Senator Cotton: General Moore, anything else in your
25 purview that you would like to share with us today?

1 General Moore: No, Senator. I think we touched on
2 everything we wanted to make sure we talked about. Thank
3 you.

4 Senator Cotton: General Hinote, you have got five
5 days left. What do you want to get off your chest?

6 General Hinote: Well --

7 Senator Cotton: Unburdened by concerns about the
8 future --

9 General Hinote: -- everybody in the Pentagon is
10 excited to hear -- in all honesty, I have watched -- for
11 whatever reason, I have been in the Pentagon for a while
12 now and know many of you in the room. And I have watched
13 this narrative unfold, this story unfolds.

14 And we have known we have needed change for many, many
15 years, and it feels like we are finally maybe getting to a
16 pivot point right now.

17 That is exciting, but it is also scary because it
18 could come off the rails right away and we don't want that.
19 So, I am cautiously optimistic and I will be cheering from
20 the sidelines.

21 Senator Cotton: Mr. Hunter, General Slife, anything
22 from you to close out?

23 Mr. Hunter: I did want to mention. So, I think you
24 raised it, sir, in your opening statement and I didn't
25 touch on it as much as would have maybe been judicious on,

1 the importance of our C3 battle management and ABMS related
2 investments.

3 So, all of the OIs, you know, you think how the OIs
4 operate, they are all fundamentally trying to solve the
5 same problem, which is the operational problem, the pacing
6 challenge. There are sort of different frameworks for
7 understanding and decomposing that problem. They all
8 recombine when you look at OI two and ABMS and C3BM.

9 To make progress on all of the different OI's, we have
10 to be able to deliver that. We have got a pretty
11 substantial investment resource increase in our budget for
12 that and we very much ask your support for that.

13 I think we have worked very hard to, with the new PEO,
14 to bring a lot of acquisition rigor and engineering
15 insight, and a lot of a richer set of program activities
16 that you can see when they will deliver results that will
17 be meaningful. So, I think we have come a long way and we
18 ask for your support for that request.

19 Senator Cotton: Thank you, Senator.

20 General Slife: Senator, we have talked a fair bit
21 today about things like electronic attack, and apertures,
22 and the need to be able to close long range kill chains at
23 scale. One of the things that underpins all of that is the
24 electromagnetic spectrum.

25 And so, as I believe you are tracking, there are

1 considerations about selling access to the electromagnetic
2 spectrum. There is a study going on right now that should
3 be finished, I believe, in September, that will kind of
4 inform the Defense Department's position on this.

5 I don't know what that study is going to say, but I
6 would just encourage the subcommittee to remain witting to
7 the potential national security impacts of the loss of
8 spectrum for some of our key capabilities. Thank you,
9 Senator.

10 Senator Cotton: Okay. All right, gentlemen. Thank
11 you all for your appearance today. Thank you for your
12 service to our nation. The hearing is adjourned.

13 [Whereupon, at 4:07 p.m., the hearing was adjourned.]

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