

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 National
Defense Authorization Request for Fiscal Year 2019
and the Future Years Defense Program**

Wednesday, April 18, 2018

Washington, D.C.

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2 AIR FORCE MODERNIZATION
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4 FOR FISCAL YEAR 2019 AND
5 THE FUTURE YEARS DEFENSE PROGRAM

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

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14 The subcommittee met, pursuant to notice, at 3:31 p.m.
15 in Room SR-222, Russell Senate Office Building, Hon. Tom
16 Cotton, chairman of the subcommittee, presiding.

17 Subcommittee Members Present: Senators Cotton
18 [presiding], Tillis, Sullivan, Cruz, Sasse, King, McCaskill,
19 Warren, and Peters.

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

3 Senator Cotton: Good afternoon.

4 On the Airland Subcommittee, we have been doing a
5 series of hearings on modernization this year. Last time,
6 we had the Army. Today we will focus on the Air Force.

7 There is no question that the ability to surveil and
8 strike any target on earth is vital to our national
9 security. We simply could not deploy our soldiers, sailors,
10 airmen, and marines all around the world without the support
11 of all of our airmen. And that is why some cost overruns
12 and time delays in modernization programs are troubling.

13 The F-35 recently finished its flight tests in the
14 system development demonstration phase, but only after long
15 delays.

16 We are also still waiting to receive the first KC-46
17 tanker, and we probably will not get it until later this
18 year, which is over a year late.

19 I will say the B-21 has been coming along well so far,
20 but given the track record, we obviously need to keep a
21 close eye on it.

22 I will be particularly interested to hear our
23 witnesses' thoughts on these three key programs. We have to
24 get them right because as the National Defense Strategy has
25 put it, the biggest threat to the United States today is the

1 emergence of long-term strategic competition by revisionist
2 powers. What they all hope to revise, of course, is our
3 role in the world despite their differences. Russian
4 aggression, Chinese expansionism, North Korea's nuclear
5 program, Iranian backed terrorism -- what they all have in
6 common is they would like to stick it to the United States.

7 The only way we can keep the peace then is to prepare
8 for a wide spectrum of contingencies. That means the Air
9 Force needs to stay ahead of our potential adversaries,
10 especially China and Russia, all while working under the
11 continued constraints of the Budget Control Act.

12 I look forward to hearing from our witnesses on what
13 capabilities the Air Force needs to maintain our lead, as
14 well as how they plan to prioritize modernization given the
15 constraints of the Budget Control Act.

16 I am also interested in hearing their thoughts on
17 improving pilot retention, whose recent trend downward is a
18 serious cause for concern.

19 Of course, the easiest solution to many of these
20 problems would be to repeal the Budget Control Act in its
21 entirety. The 2-year budget deal Congress passed earlier
22 this year did some good, but under current law, Budget
23 Control Act levels return in fiscal year 2020 and 2021.
24 Congress has proven itself incapable of adhering to these
25 caps. So I do not think we should keep them on the books

1 given the havoc they do to all of our modernization
2 programs. So I will say it again. Until Congress finally
3 acts, the BCA must be repealed.

4 Now I would like to welcome our witnesses: Lieutenant
5 General Arnie Bunch, Military Deputy, Office of the
6 Assistant Secretary of the Air Force for Acquisition;
7 Lieutenant General JD Harris, Deputy Chief of Staff for
8 Strategic Plans, Programs and Requirements; and Major
9 General Smokey Robinson, Assistant Deputy Chief of Staff for
10 Operations. Thank you, gentlemen, for your many years of
11 distinguished service and for joining us here today.

12 Senator King?

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1 STATEMENT OF HON. ANGUS S. KING, JR., U.S. SENATOR
2 FROM MAINE

3 Senator King: Thank you, Mr. Chairman.

4 And I want to welcome and thank our witnesses for their
5 appearance today. I look forward to hearing your testimony
6 about these important issues.

7 As the chairman mentioned, earlier this year we had
8 Army witnesses to discuss the Army modernization portfolio,
9 and today I want to see what you all have to say about the
10 challenges facing the modernization of the Air Force.

11 I am especially interested in hearing how the Air Force
12 plans to manage these multiple modernization programs to
13 deliver the capabilities our warfighters need in a timely
14 manner -- I emphasize a timely manner -- and defeat our most
15 capable adversaries while protecting taxpayer resources.
16 The recent track record in this is not good. Our job in
17 Congress is to oversee the Department to ensure that we
18 pursue these modernization programs in a more efficient and
19 effective manner.

20 Our witnesses this afternoon face huge challenges as
21 they strive to balance the need to support ongoing
22 operations -- and the chairman mentioned the problem with
23 pilot retention, for example -- and sustain readiness with
24 the need to modernize and keep the technological edge, which
25 is so critical to successful military operations.

1 Specifically, the Air Force will bear a large share of
2 the burden of implementing the National Defense Strategy
3 announced by Secretary Mattis earlier this year that
4 identifies state strategic competition with increasingly
5 capable adversaries as the primary U.S. national security
6 concern. We are, in effect, shifting gears from one very
7 different type of warfare to another.

8 These challenges have been made particularly difficult
9 by the spending caps imposed by the Budget Control Act.
10 Fortunately, we have a budget agreement on the defense top
11 line for fiscal year 2018 and 2019, but additional
12 challenges loom on the horizon with the Budget Control Act
13 back in full force in 2020.

14 There are a number of other issues we need to discuss,
15 but in the interest of time, I will stop here, wait for our
16 discussion.

17 And again, I want to thank our witnesses and thank you,
18 Mr. Chairman, for holding this hearing.

19 Senator Cotton: General Bunch?

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1 STATEMENT OF LIEUTENANT GENERAL ARNOLD W. BUNCH, JR.,
2 USAF, MILITARY DEPUTY, OFFICE OF THE ASSISTANT SECRETARY OF
3 THE AIR FORCE FOR ACQUISITION; LIEUTENANT GENERAL JERRY D.
4 HARRIS, USAF, DEPUTY CHIEF OF STAFF FOR STRATEGIC PLANS AND
5 REQUIREMENTS, HEADQUARTERS UNITED STATES AIR FORCE; AND
6 BRIGADIER GENERAL BRIAN S. ROBINSON, USAF, ASSISTANT DEPUTY
7 CHIEF OF STAFF, OPERATIONS, HEADQUARTERS UNITED STATES AIR
8 FORCE

9 General Bunch: Yes, sir. Good afternoon and thank
10 you, Chairman Cotton and Ranking Member King and the
11 distinguished members of the subcommittee for the
12 opportunity to appear before you today to talk about the Air
13 Force priorities for fiscal year 2019. We appreciate your
14 service and the support this subcommittee provides the
15 United States Air Force, our airmen, and their families.

16 Today, as you said, I am accompanied by Lieutenant
17 General JD Harris, Deputy Chief of Staff for Strategic Plans
18 and Requirements, and Major General Brian Smokey Robinson,
19 Assistant Deputy Chief of Staff for Operations. We have
20 prepared a joint statement, and I will provide opening
21 remarks for the team. But I would ask that the full
22 statement be entered into the official record.

23 Senator Cotton: Without objection.

24 General Bunch: For the past 70 years, your Air Force
25 has been breaking barriers as a member of the finest joint

1 warfighting team on the planet and has secured peace by
2 providing decisive warfighting advantage in, through, and
3 from airspace and cyberspace. Today's demand for Air Force
4 capabilities continues to grow as the United States now
5 faces a more competitive and dangerous international
6 security environment than we have seen in generations. The
7 fabric of Air Force weaves multi-domain effects and provides
8 joint warfighters the blanket of protection and ability to
9 power project America's full range of combat capabilities.
10 We are always there meeting the rising challenges by
11 defeating our adversaries, deterring threats, and assuring
12 our allies 24 hours a day, 7 days a week, 365 days a year.

13 With global trends and intensifying pressure from major
14 challengers, our relative advantage in air and space is
15 eroding in a number of critical areas. We are supporting
16 combatant commander requirements in response to growing
17 challenges from Russia, China, North Korea, and Iran, in
18 addition to the ever-present counterterrorism mission in the
19 Middle East and around the world.

20 In accordance with the new National Defense Strategy,
21 this year's budget request prioritizes long-term competition
22 with China and Russia. The Air Force must build a more
23 lethal and ready force, strengthen alliances and
24 partnerships, and deliver greater, more affordable
25 performance. Future wars will be won by those who observe,

1 orient, decide, and act faster than adversaries in an
2 integrated way across all domains.

3 With your support of our fiscal year 2019 budget
4 request, the Air Force will drive innovation, reinforce
5 budget discipline, and deliver capabilities with greater
6 affordability at the speed of relevance.

7 The demand for air, space, and cyber capabilities
8 continues to grow, and our Chief is committed to ensuring
9 that America's airmen are resourced and trained to fight
10 alongside our sister services to meet all national security
11 obligations. The Air Force seeks to balance risk across
12 capacity, capability, and readiness to maintain our nation's
13 advantage.

14 I would like to thank the members of this committee for
15 the passage of the fiscal year 2018 budget and the relief of
16 the Budget Control Act restrictions for fiscal years 2018
17 and 2019. This allows us to relook at some of the tough
18 tradeoffs made between force structure, readiness, and
19 modernization.

20 Today's modernization is tomorrow's readiness, and that
21 readiness is not static. While our forces have been heavily
22 engaged in deterring or addressing counterterrorism, other
23 adversaries have taken the opportunity to invest in and
24 advance their own capabilities. To address ever-narrowing
25 capability advantages, we need your support in the form of

1 steady, predictable, and timely appropriations that fulfill
2 our annual budget requests.

3 The Air Force budget request for fiscal year 2019
4 builds on the progress we are making in 2018 to restore the
5 readiness of the force, increase lethality, and cost
6 effectively modernize our top priorities. This is critical
7 to ensure we can meet today's demand for capability and
8 capacity without sacrificing modernization for tomorrow's
9 high-end fight against the full array of potential
10 adversaries, allowing us ability to modernize faster, be
11 ready sooner, be capable of achieving of our National
12 Defense Strategy tasks in a timely manner.

13 As critical members of the joint team, the Air Force
14 operates in a vast array of domains and prevails in every
15 level of conflict. However, we must remain focused on
16 integrating air, space, and cyber capabilities across the
17 domains through our core missions of air superiority, space
18 superiority, global strike, and rapid global mobility to
19 continue to provide our nation with the security it enjoys.

20 We look forward to working closely with the committee
21 to ensure the ability to deliver combat air power for
22 America when and where we are needed. General Harris,
23 General Robinson, and I look forward to answering questions
24 from the committee this afternoon. And again, thank you for
25 your continued support of the greatest Air Force on the

1 planet.

2 [The prepared statement of General Bunch, General
3 Harris, and General Robinson follows:]

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1 Senator Cotton: General Harris, General Robinson,
2 General Bunch spoke for both of you in that statement?
3 Okay.

4 General Bunch, let us return to something you said in
5 your opening statement about the need for certain and
6 predictable funding. Obviously, the 2-year budget and the
7 spending bill for this fiscal year has given you the money
8 you need through the end of September, but does part of that
9 need for certain funding mean a defense appropriations bill
10 later this summer for the next fiscal year, fiscal year
11 2019?

12 General Bunch: Sir, we always want appropriations on
13 time so that we can wisely execute the contracts that we put
14 in place and take the steps we need to make sure we can
15 deliver the nation's needs.

16 Senator Cotton: Thank you.

17 I also assume that the need for certain and predictable
18 funding includes preventing the return of sequestration for
19 fiscal year 2020 and fiscal year 2021, which is current law
20 under the Budget Control Act?

21 General Bunch: Sir, we are still recovering. We have
22 started turning the corner, but we are still recovering from
23 the sequestration readiness impacts that we faced in the
24 past.

25 Senator Cotton: Thank you.

1 General Harris, let us turn and look at the big picture
2 for the Air Force. It is an early stage of an extensive
3 modernization and recapitalization effort, including the
4 F-35A, the KC-46, the B-21 bomber, the new trainer, the new
5 Air Force One, all of which will require significant
6 research and procurement dollars. Investments in next
7 generation air dominance capabilities have also begun to
8 ramp up significantly, not to mention recapitalization of
9 the nuclear enterprise.

10 How is the Air Force balancing all of these competing
11 priorities?

12 General Harris: Well, sir, we do have a new National
13 Defense Strategy to go with this budget, and while that
14 document itself is classified, it allows us to take some
15 risk in some areas.

16 So with the budget that was awarded in 2018 and then
17 moving out through 2019, what we are expecting based on the
18 submission that we have, we are looking for a balance of
19 continuing to improve our readiness but focusing more on the
20 high-end fight against our peer adversaries rather than the
21 focus of the last several years at the low-end fight for a
22 counterinsurgency. So that is a long list of things we have
23 to get after.

24 We started with our nuclear mission to make sure that
25 that is number one. We have funded and covered as much of

1 that as we can. We continue to make progress and making
2 sure that it is connected and ready for the fight that we
3 are trying to deter, but our focus is on that high end
4 across with the B-21, the F-35, our next generation air
5 dominance, to make sure that we are ready to fight our
6 adversaries the way we would expect to from a highly
7 contested war.

8 Senator Cotton: You somewhat anticipated and preempted
9 my next question, which was how is the National Defense
10 Strategy going to affect your modernization and
11 recapitalization plan. It sounds like that focus on the
12 high end is one change. It is the last National Defense
13 Strategy.

14 General Harris: Yes, sir, it has. The National
15 Defense Strategy told us to take some risks in areas where
16 it was either not cost effective to modernize some of our
17 capability, to look at other ways to do things and to
18 certainly make sure that we are focused for that high-end
19 fight against some of the adversaries that are listed in the
20 NDS. So it was helpful in that it gave us areas to take
21 risks. So you saw that in space with one of our big moves
22 with our SBIRS effort where we have restructured our final
23 two SBIRS 7 and 8 to make sure that we could both defend the
24 assets we have on orbit and make sure that we could hold an
25 adversary's capability in space at risk also. You see that

1 in the JSTARS effort that we have done to make sure that it
2 was a survivable capability for the mission that we need,
3 and where we are headed with the recap was not necessarily
4 in support of the National Defense Strategy in the task we
5 have.

6 Senator Cotton: How are you managing all those
7 priorities with the prospect that BCA sequestration levels
8 may return in fiscal year 2020, which is now no more than 18
9 months away?

10 General Harris: Well, sir, to be honest, a return to
11 BCA sequester from that perspective would be devastating to
12 our plans. So I think the Chairman of the Joint Chiefs of
13 Staff said it well. To execute and continue on where we are
14 at, we need about a 3 percent increase. To execute the NDS
15 strategy, it needs about a 5 percent increase. We are
16 planning for a flat line budget not a return to BCA, and
17 that is what is handcuffing us getting after some of the
18 readiness and modernization and the capability that we need
19 and the capacity that is expected of our joint teammates.

20 Senator Cotton: One final question in this round. The
21 Air Force leadership has stated on numerous occasions that
22 the Air Force requires a minimum of 100 B-21 bombers. Has
23 the National Defense Strategy done anything to change that
24 requirement?

25 General Harris: I would not say it has done anything

1 to change it, sir. It has probably reinforced that
2 requirement that 100 is the min based on what we are going
3 to need out of that capability.

4 Senator Cotton: Thank you.

5 Senator King?

6 Senator King: Thank you.

7 General Bunch, let us talk about the F-35 for a minute.
8 I understand that there is a dispute about priming some of
9 the drains on the entire fleet of aircraft. This was not
10 done on the production line. It has been identified as a
11 problem. First, give me an update on what the situation is
12 with accepting F-35 deliveries.

13 General Bunch: So, sir, Senator King, what we have
14 done is put a pause. I would not call it a complete stop.
15 Some of the lot 10 aircraft have been accepted, 14 to be
16 exact. There are five that are in hold right now. Three of
17 those are Air Force. One of those is from Norway and one of
18 those is from Australia. We have taken this step as we
19 negotiate and work with Lockheed Martin on how we do the
20 remediation of that error.

21 Senator King: Do all the planes that have been
22 produced have this problem?

23 General Bunch: No, sir, not all. We found it on a lot
24 of the ones, though, that are in the fleet, and it is
25 something that we need to go retrofit.

1 Senator King: So the ones that are in production are
2 being --

3 General Bunch: Yes, sir. The ones that are in the
4 line are being fixed, Senator.

5 Senator King: I see. Okay. So we are talking about
6 14 airplanes?

7 General Bunch: No, sir. We are talking more aircraft
8 than that that have gone to the field. I cannot give you
9 the exact number right now, and if I need to give you a
10 number, we can go back and work that with the program
11 office. But it is an escape, quality escape, on taking
12 those steps in putting that corrosion protection in that
13 area. It was found on an aircraft that was in the field.
14 It is something we found in other places, and it is
15 something we are right now working. Admiral Winter is
16 working with Lockheed Martin to negotiate how we get that
17 resolved.

18 Senator King: I understand just in the last couple of
19 days that Lockheed Martin may be refusing to do this work
20 without reimbursement from the government. What is the Air
21 Force's view on that?

22 General Bunch: Sir, right now our position is I need
23 Admiral Winter to be the program executive officer and stand
24 up and take this step to make sure we are getting a quality
25 product and make sure we are getting something that we can

1 afford.

2 Senator King: I am not sure what you just said.

3 General Bunch: What I really said is Admiral Winter is
4 working this for us to work the remediation so that the
5 contractor has to step up, which we support.

6 Senator King: So it is your position that this is the
7 responsibility of the contractor.

8 General Bunch: That is my position, sir.

9 Senator King: Thank you.

10 Let us talk about the KC-46. I understand there are
11 further delays there. Can you give us an update on where we
12 are with the certification process?

13 General Bunch: So the certification process continues.
14 It is delayed from what we had expected. We have run into
15 issues with getting the FAA certifications through the
16 process, and we have had delays in flight test execution.

17 Senator King: Is this a contractor delay, an Air Force
18 delay, or an FAA delay?

19 General Bunch: It is a contractor delay because they
20 are responsible for getting it through the certification
21 process and delivering an aircraft, sir. So that FAA
22 certification is a process they have to go through with the
23 FAA to get approved, and they have not been able to
24 accomplish that.

25 The test delays are a program that we have not executed

1 as a team to the level that we are supposed to execute.
2 That is something that we are in discussions about how we
3 prioritize and how we resource to make sure that it gets
4 executed as quickly as possible. The latest estimate right
5 now is the end of this year for the first aircraft delivery.
6 We continue to have regular meetings and work with Boeing to
7 see what we can do in parallel. We continue to work what we
8 can do in the test program to expedite. Can we add
9 additional resources? Can we rephrase how we do certain
10 tests? But our end game is we need an aircraft that when it
11 is delivered is capable of the mission and we have something
12 we can put our airmen in and our maintainers working on so
13 that we can execute missions day one.

14 Senator King: And now you are looking toward
15 deliveries beginning at the end of this calendar year?

16 General Bunch: Yes, sir. That is our estimate. We
17 are trying to pull it left, but that is our estimate today,
18 sir. I apologize for interrupting.

19 Senator King: Do you think that is realistic, you can
20 make that?

21 General Bunch: Sir, we are still executing the test
22 program. We still have a long way to go. I am optimistic
23 today. I need to see the program continue to execute, and I
24 need to see the performance continue to improve with a
25 number of test points we are executing on a regular basis.

1 Senator King: Now the other big project, the B-21.

2 General Bunch: Yes, sir.

3 Senator King: There may be material that we have to
4 talk about in a closed session, but what can you tell me
5 about the progress and the Air Force's understanding of
6 where we are and if you are satisfied with progress to date
7 both in terms of timeliness, capability, and cost?

8 General Bunch: Sir, I am satisfied today with our
9 progress. We continue in the MD program. I think we have
10 reported before we completed preliminary design review. We
11 have now completed a first software drop to go through the
12 process, and we have got software out that we are looking at
13 now. They are already working on the second drop. We
14 continue to have regular meetings with them and measure the
15 progress, give regular updates to senior leaders, but right
16 now I am very happy with how the program is progressing.

17 Senator King: And it is falling within the parameters
18 of the contract in terms of cost?

19 General Bunch: It is falling within the parameters of
20 what we estimated the cost would be because, if you recall,
21 we did our independent cost assessment. We estimated what
22 we thought it would be, and it is falling within those
23 parameters today.

24 Senator King: Good. Thank you.

25 General Bunch: Yes, sir.

1 Senator King: Mr. Chairman, thank you very much.

2 Senator Cotton: Thank you, Senator King, touching on
3 several of the key questions that every member of this
4 committee has.

5 Senator Sullivan?

6 Senator Sullivan: Thank you, Mr. Chairman.

7 And gentlemen, welcome. Thanks for your service.

8 I want to continue on with the KC-46. So how long has
9 it been delayed? What was the original target date?

10 General Bunch: Our original target date for the first
11 aircraft, we were actually going to get required assets
12 available by August of 2017. That was what we had put on
13 contract. That was going to be 18 aircraft, nine work ship
14 sets -- that is wing, air, fuel, and pod ship sets -- and
15 two spare engines. Currently we estimate that in February
16 of 2019 at best.

17 Senator Sullivan: So a 2-year delay at minimum?

18 General Bunch: That is about an 18-month delay, sir,
19 but it has been significantly delayed. We actually are
20 expecting first aircraft delivery late this year.

21 Senator Sullivan: Well, you know, you gave us a little
22 bit of generalities. Can you get more specific on the
23 source of the delay?

24 General Bunch: Sir, the requirements to get through
25 the certification process has taken significantly longer

1 than we originally scheduled and what Boeing thought they
2 were going to be able to execute working with the FAA and
3 doing those certifications. That has taken significantly
4 longer.

5 We have discovered things in flight tests. Over a year
6 ago, we had a boom load issue. That has been rectified.
7 Right now, we have three category 1 deficiency reports that
8 we are working through. We have a category 1 deficiency
9 report on the centerline drogue system and how it refuels
10 the F-18. We have a category 1 deficiency report --

11 Senator Sullivan: Category 1 is?

12 General Bunch: I apologize, sir. I went into
13 acquisition speak.

14 That is a deficiency that is significant enough that we
15 need to see it fixed and we need tactics, techniques, and
16 procedures or mitigations work before we will be able to
17 accept that capability.

18 Senator Sullivan: Who bears the financial burden of
19 these delays?

20 General Bunch: On this program, sir, the cost is
21 capped at \$4.9 billion. We have already far exceeded that.
22 So all of this expenditure is being done on Boeing.

23 Senator Sullivan: Okay. So, you know, we had a lot of
24 lessons learned, I am assuming, from the F-35 acquisition
25 and delays and how long that took. Are we applying any of

1 those to what is going on with the KC-46 right now?

2 General Bunch: So the KC-46 is a different contracting
3 strategy, and it is a different asset.

4 Senator Sullivan: There are no lessons learned from
5 the F-35 to this situation?

6 General Bunch: There are probably some lessons learned
7 about how you build your strategy from the very beginning,
8 who you have involved, and how you make your assumptions.
9 The difference on the two programs, the F-35 program was a
10 cost-plus program that has caused us to continue to invest
11 money in that program. On the KC-46 program, that was a
12 fixed price, incentive firm contract, and when we reached
13 the cap for that, we no longer are expending funds. We are
14 paying for some of our test force and other things, but all
15 of the overruns Boeing is paying for.

16 Senator Sullivan: So I think, you know, in my State we
17 are going to have over 100 fifth generation fighters when
18 the F-35's get there and the F-22's and JPARC. And I will
19 talk to you in a minute about that.

20 In both the Secretary and General Goldfein's
21 confirmation hearing, they committed to me to take a hard
22 look at the OCONUS decision on the KC-46 basing in Alaska.
23 Can I continue to get your commitment on that, General, to
24 take a look at that?

25 General Harris: Yes, sir. We have made no change, and

1 we will continue to look at it.

2 Senator Sullivan: Let me ask on the JPARC. With the
3 fifth gen aircraft and the need for bigger training, a
4 number of the senior Air Force leadership has referred to
5 that training space as the crown jewel given its size and
6 the joint training and the combined arms training.

7 But the one thing that I think a number of you -- and
8 it was even in Secretary Wilson's confirmation, the QFRs --
9 what we lack there in terms of the most realistic training
10 is up to date. Emitters, in terms of the threat emitters
11 are more representative of the Vietnam era and the first
12 Gulf War. Secretary Wilson stated that she believed there
13 are plans to add joint threat emitters and advanced radar
14 threat systems to JPARC to make that the top, most
15 realistic. Is that ongoing? Can you confirm her commitment
16 that she made during her confirmation hearing on that?
17 General Robinson, it looks like you got this one.

18 General Robinson: Yes, sir, Senator Sullivan. A great
19 question. And the short and the long is we actually have an
20 operational training infrastructure road map that we have
21 spent quite a bit amount of time researching the best way to
22 optimize training for our fifth gen platforms in terms of
23 the right threat emitters and replicating the threats that
24 you talked about physically, as well as virtually. So we
25 are aggressively looking at how we can do that.

1 Senator Sullivan: So is that a yes?

2 General Robinson: Yes.

3 Senator Sullivan: Would you agree, given the
4 importance of fifth gen -- I know we have notional training
5 but actual air-to-air, real steel up in the air that having
6 much larger air spaces is so important given the standoff
7 ranges on fifth gen fighters that we need to make sure we
8 are training. Would you agree that is important as well?

9 General Harris: Yes, sir, we do. And the JPARC is one
10 of those crown jewels that provides a magnitude in what we
11 need for a lot of that.

12 Senator Sullivan: Air space bigger than Florida. You
13 knew that but I am not sure my colleagues did.

14 General Harris: Yes, sir. I enjoyed my time at
15 Eielson Air Force Base for 2 years. So I am familiar with
16 it.

17 We are supportive and will continue to work to make
18 sure that we get the training that we need. But as you
19 know, the F-35 and the F-22 are very sophisticated
20 capabilities that they see through a lot of the threat that
21 is not an actual piece. So we are having to work through
22 that on our training also.

23 Senator Sullivan: Great. Thank you.

24 Thank you, Mr. Chairman.

25 Senator Cotton: Senator McCaskill?

1 Senator McCaskill: I know that you all would like to
2 go back and change the decision. I am so proud of the Navy
3 pilot that was piloting the Southwest flight and was able to
4 land that plane. She tried to be in the Air Force first,
5 and you guys were not taking women pilots at the time. So I
6 am glad that we have rectified that throughout our military
7 since, obviously, she showed tremendous skill and poise at
8 one of the most critical moments a pilot could ever face.
9 So I had to tease you a little bit about that before I began
10 my questions.

11 Have any of you had a chance to read the DOD IG report
12 on F-22 modernization that came out last month?

13 General Harris: Yes, ma'am. We have the report.

14 Senator McCaskill: Could you tell me if the issue that
15 they identified about implementing agile software
16 development methods on weapon system acquisitions -- if
17 those issues that they point out -- have they been
18 addressed?

19 General Bunch: Ma'am, we had already identified those
20 issues and had started taking steps. We are implementing
21 agile developmental ops procedures in that platform to try
22 to accelerate capabilities to the field. Those steps were
23 taken before the report was ever published.

24 Senator McCaskill: Do you believe that all of the
25 issues that are identified in that report have now been

1 taken care of? Can I like go through my IG list and check
2 all of those off?

3 General Bunch: I believe, ma'am, we have addressed
4 those issues. There were certain things they had in we did
5 not concur with exactly the wording they had there, but I am
6 very comfortable and I have emails even on it this week as
7 to how we move forward to be more agile and how we do that
8 software development to move forward and provide those
9 capabilities more quickly at the speed of relevance into the
10 field.

11 Senator McCaskill: As always when you have a
12 disagreement with the way a finding is -- as an old auditor,
13 I am picky about this. If you disagree with the way the
14 finding was written but not the substance of the finding, I
15 think it is important for us to understand that. So would
16 you mind if my staff followed up to find out those findings
17 that you did not concur with, what the basis of that was to
18 make sure that we are not overlooking the forest for the
19 trees?

20 General Bunch: I am happy to have that, ma'am.

21 Senator McCaskill: Thank you.

22 Let us talk just for a minute about B-2 modernization
23 and transition to B-21. As you might imagine, I care a lot
24 about the B-2. But I understand that time marches on and I
25 want to ask a couple of questions. I know that there is

1 funding in the fiscal year 2019 budget to continue the B-1
2 and B-2. I am under the impression -- and I want you all to
3 confirm this -- that they will not be retired until there
4 are a sufficient number of B-21's. Is that correct?

5 General Harris: Yes, ma'am. And to say sufficient
6 number, we intend to hold our bomber fleet at the minimum
7 numbers that we have now and then grow as we add B-21's to
8 the fleet to 175 total: 100 B-21's, 75-76 B-52's.

9 Senator McCaskill: And I am assuming that both bomber
10 wings that are equipped with B-1 and B-2 bombers will be re-
11 equipped with B-21's?

12 General Harris: Right now, the approach, ma'am, is
13 yes. If you are flying bombers today, you will be flying
14 bombers in the future.

15 Senator McCaskill: Okay.

16 Our current bomber level is 158. We had 290 in 1991.
17 And your written testimony says the current level is
18 insufficient. As you just mentioned, your intent is to
19 maintain 78 B-52's and keep going until 2050 and grow the
20 B-21 to a minimum of 100. Is 178 sufficient?

21 General Harris: From a war plan perspective, 175 to
22 178 is better than what we have now. So there is
23 improvement in that. We would like to fix the nine bomber
24 squadrons we have to give them more airplanes per squadron
25 and then continue to grow to somewhere in the neighborhood

1 of about 14 to 16 bomber squadrons that are ready for the
2 mission. So sufficient for the fight that we are looking at
3 in the NDS. We would have to say yes. We would be more
4 effective if we had more.

5 Senator McCaskill: Will we maintain bomber wings
6 within the Air National Guard, and will they be equipped
7 with B-21's?

8 General Harris: The National Guard will continue to be
9 associated with the bomber wings that they are associated
10 with now. So that will not change with the B-21's.

11 Senator McCaskill: And is there a plan to phase out
12 B-1's prior to B-2's, or will they be phased out at the same
13 time?

14 General Harris: It is a balance, ma'am. The B-21 is
15 going to be our penetrating bomber of the future. The B-2
16 is our most expensive bomber even though the numbers are
17 small. So the bomber road map from my understanding is
18 going to start with initially B-1's phasing out. Once we
19 have capability with the B-21, then we will look at the B-2
20 fleet and then move back to finish the B-1 fleet. So you
21 will see both of them phasing out in the 2030s.

22 Senator McCaskill: Okay.

23 Thank you, Mr. Chairman.

24 Senator Cotton: Thank you, Senator McCaskill.

25 General Harris, I have to say Senator McCaskill asked

1 if the 178 bombers were sufficient, and you gave what seemed
2 to be a diplomatic answer of no. Is that accurate?

3 General Harris: We say 175, I think is the number, is
4 our minimum number. We are below that now, and I would be
5 loathe to say in the future that that would be sufficient.
6 But to match the NDS, growing to that number is an important
7 task for us.

8 Senator Cotton: I heard the phrase "fight the NDAA
9 fight."

10 General Harris: No. I am sorry. The NDS.

11 Senator Cotton: NDS, okay. You are saying we fight
12 Russia and China, not the NDAA politics.

13 [Laughter.]

14 Senator Cotton: Thank you. I just wanted to clarify
15 that because I understand you have to operate under
16 constraints, but we can make decisions about what we think
17 is vital to our national security in the long run.

18 Senator Tillis?

19 Senator Tillis: Thank you, Mr. Chairman.

20 Gentlemen, I was watching the testimony back in my
21 office, and I believe, General Bunch, you were talking -- I
22 believe it was you who was talking about the KC-46 and some
23 of the delays. Do you have any idea how that shifting to
24 the right also affects the downstream deployment to bases, I
25 believe Seymour Johnson being one of them?

1 General Bunch: Sir, if we are delaying the acceptance
2 of aircraft, it is going to have to have an impact until we
3 start getting aircraft --

4 Senator Tillis: It is pretty much day to day.

5 General Bunch: We are going to look to see if we can
6 accelerate maybe some. One of the things we have been
7 approached on is can we accept more aircraft per month than
8 what we have currently got planned. We will have to look at
9 the throughput of that. There are certain things we have to
10 do. So it may not be day for day, sir, but it is going to
11 be a slip.

12 Senator Tillis: You mentioned that the slippage is the
13 contractor's inability to get the FAA certification. Do you
14 all as a Department have insight into the bases for those
15 delays to know if it is just -- you would think they would
16 be highly motivated to get through the certification, or if
17 there are kinks over in the FAA, or do you even concern
18 yourself with the root causes? You just expect them to
19 produce an outcome.

20 General Bunch: Sir, we expect them to produce an
21 outcome, but we do get concerned when they are having
22 issues. They are continuing to go back and forth. They are
23 having the dialogue. We have asked how they are addressing
24 that and how aggressively they are working that with the
25 FAA. So we are concerned about that.

1 I do want to say that is not the only thing that is
2 hindering us. I talked about some performance things, and
3 also we are still having difficulties getting through some
4 of the test program.

5 Senator Tillis: General Harris, I did not keep the
6 tick marks, but I was watching your testimony as well and
7 then answers to some of the comments or questions from
8 Senator McCaskill. And you used "minimum" multiple times,
9 as this at least satisfies our minimum requirement. In an
10 open setting like this, can you tell us what sort of
11 cumulative gap exists between us and our near peer
12 competitors when all we do is achieve the minimum?

13 General Harris: Well, thank you, sir for the question.

14 Our industrial base, working with some of our advanced
15 companies, keep us ahead of our competitors with a
16 capability that they are yet to deliver from our
17 adversaries. So we are seeing their ability to project
18 forces again: Russia, resurgent; China starting to work on
19 that. All of our adversaries are wishing to have the
20 capability we have.

21 The minimum numbers we are talking about is because we
22 are having to focus on a balance. We did get a plus-up for
23 2019 with the budget that has been submitted, but it was not
24 everything. And we have to balance our nuclear, our space,
25 and our conventional forces. So that is why we are still

1 working at the minimums.

2 But looking with the National Defense Strategy, not the
3 NDAA, we are intending to be able to fight and win against
4 any of our adversaries, whether it is today, it is in 5
5 years, or it is in 10 years.

6 Senator Tillis: This actually may not be a question
7 you all can answer in this setting, but can you give me a
8 sense of some of our partners who are involved with
9 manufacturing operations of the F-35, the Joint Strike
10 Fighter? I know Turkey is one of them. So, for example,
11 what is the extent of their involvement in that program?

12 General Bunch: So we can go into more detail. I do
13 not have the full list, but the way that that program has
14 been run, we have competitions. Turkey is a contributor of
15 a significant amount of parts. They also have some repair
16 facilities there for engines and other aspects that we deal
17 with. We also have those in Italy. We have those with
18 Japan, and we have others. So almost every international
19 partner has certain components of the aircraft that are
20 built in their areas.

21 Senator Tillis: Okay.

22 In Seapower, we have got this magic number of 355 for
23 our fleet, the ship number. And I for one think that it is
24 nice to have some numbers so you can tick off when you are
25 accomplishing things. But when we talk about numbers, we

1 kind of get away from capabilities. And as you are going
2 from 20th century to 21st century data-centric, new
3 strategies within the Air Force, what mistake do we make if
4 we just come back and tick off the number of B-21's or
5 F-35's or KC-46's versus that inherent capability you are
6 looking for? In other words, are our adversaries strictly
7 focused on hitting whatever their production targets are for
8 comparable systems, or are they looking at things
9 differently and being more dynamic in terms of what they are
10 fielding? I know in sea power, for example, Russia has a
11 different maybe approach to how they are going to go about
12 projecting power on the seas. How are we doing with that,
13 and how are our adversaries looking at that, capabilities
14 versus units?

15 General Bunch: So, Senator Tillis, I cannot say
16 exactly how our adversaries. What I can say is we are
17 looking at ways that we can prototype and get more
18 capabilities into the field in a more timely manner. So can
19 I prototype and demonstrate a capability and not agree that
20 I am going to buy 500 or 1,000? If it is better than what I
21 have got, can I go buy a certain number to get a capability
22 out in the field to give more warfighting capability? That
23 is an approach that Dr. Roper is bringing in and we have
24 been trying to do to try to get more capabilities in the
25 field, which kind of goes against here is a magic number I

1 got to get to, what do I do to speed this up.

2 General Harris: Senator, if I can add. We are also
3 looking at it from a network perspective. We would not
4 compare one of our ships against one of their ships. You
5 bring a fleet to that with our Navy. We bring a system with
6 that from an airman's perspective. So it is not just a
7 single platform. It is what we can put together in air,
8 space, and cyber. And we continue to make advances in all
9 three of those to make sure that we can dominate our
10 adversary at a time of our choosing.

11 Senator Cotton: Senator Warren.

12 Senator Warren: Thank you, Mr. Chairman.

13 And thank you to our witnesses for being here today.

14 So last year, the Air Force announced that it was
15 considering retiring our fourth generation F-15 fighters.
16 And when I asked you all about this last year, the Air Force
17 cited internal deliberations and said at that time no
18 decision had been made. So where are we this year? General
19 Bunch, General Harris? Who would like to answer that?

20 General Harris: Ma'am, I will start with that. The
21 study is still ongoing, and we are looking at the F-35 that
22 we are buying now and the beddown options that we can do.
23 The National Defense Strategy is where we have been putting
24 our focus for the last 6 months to a year, and now that it
25 is published, it tells us to modernize what is most cost

1 effective and capable for getting the mission done. So that
2 brings our F-15C and some of our assets back into the mix.
3 So there is nothing off the table. We are looking at, as we
4 bring F-35's in, can we grow our capacity rather than just
5 replace one for one. And we are also looking to see if we
6 cannot do that, what is our best asset, our least capable
7 asset to retire based on the value that it would provide for
8 us for the money --

9 Senator Warren: So does that mean we are likely to
10 have our F-15's, say, through the 2020s, or you just cannot
11 say at this point still?

12 General Harris: Well, through 2020s, yes.

13 Senator Warren: Through the 2020s, yes.

14 General Harris: If you are saying the next 2 years
15 when we get into 2020. If you are saying for the next 12
16 years, the end of the 2020s, I do not know. We are looking
17 at our F-16's, our A-10's, and our F-15's to make sure that
18 we have the best capable Air Force from that, and the F-35,
19 as a multi-role airplane, is very capable of some of the
20 things that the F-15C, the F-16, and the A-10 do.

21 Senator Warren: So I get that you all are still trying
22 to work this out, and obviously, you are trying to maintain
23 coverage at all times. I certainly understand that.

24 But the part I am struggling with is if we do not have
25 a replacement in place, then what are we going to do? We

1 are using these F-15's every single day, and it takes us to
2 the question of this is an aircraft that has already
3 exceeded 90 percent of its useful life. And so the question
4 I have, is there a variety of proposals for how it is we
5 might extend the life of the platform? And I want to know
6 how it is that you are thinking about this. Are you
7 thinking about extending it? What is the approach?

8 General Bunch: So, ma'am, I will address the extension
9 and the acquisition parts of this.

10 Senator Warren: Sure.

11 General Bunch: So on the first part, one of the things
12 we are doing, we have got an EPAWSS. That is a new
13 defensive system that is going on the F-15E. We are
14 continuing to do our testing on that for the F-15C such that
15 if we make the decision to retain those platforms, that
16 integration will be easier to do and we will have already
17 done the tests and we can put it in the field in a more
18 timely manner. So we have not closed the door on that.
19 That is something that we are doing to make sure we have
20 that flexibility.

21 Senator Warren: Do you have some kind of timeline on
22 that decision? Can you just help me understand that better?

23 General Bunch: I cannot tell you the timeline on the
24 decision, ma'am. What I can tell you is one of the factors
25 that we are looking at is those aircraft has been around for

1 an extended period of time. There are service life
2 extension programs that have gone in a lot of ways. We are
3 doing some of the lower cost service life extension programs
4 on that platform. Some of those become very expensive
5 before very long to the point that it may not be cost
6 effective to do a service life extension program for the
7 cost that it would take to modernize that aircraft and
8 continue to use forward. That is part of what is going into
9 the analysis that we are doing to make sure we are making
10 the best trade for the taxpayer dollar on the capability
11 that we are trying to provide and balance that against can I
12 get that mission done with the F-35's.

13 Senator Warren: Well, then let me ask. There is an
14 existing program of record to modernize the current F-15
15 fleet. For example, the Air Force previously planned to
16 upgrade the active electronically scanned array, AESA, radar
17 on the F-15's beginning in 2019. So is there funding in the
18 2019 request to do those upgrades?

19 General Harris: Again, ma'am, there is. We are
20 focused primarily on the fleet we know we will keep in our
21 F-15E. So EPAWSS Inc 1 and 2 is continuing to move forward
22 with that.

23 Senator Warren: You do have funding, though, in the
24 2019 because I thought you did not for that.

25 General Harris: For the F-15E fleet, yes, ma'am. If

1 you are talking F-15C's and our air defense, air superiority
2 role, we do not at this time because we expect this year
3 with the National Defense Strategy and I think it is a
4 congressionally directed study on our future fighter force
5 that should align with our Air Combat Command's lead on the
6 beddown of our fighters as we bring in F-35's -- and you
7 will also notice in the fiscal year 2019 an increase in our
8 funding for our next generation air dominance. So we are
9 looking at the air superiority mission and what is the best
10 way to do that. The near term may also include F-35's going
11 to those F-15C units for that role.

12 Senator Warren: Okay. And I take it that means that
13 you do not have a 5-year funding plan for upgrades to the
14 F-15's. Is that right? Is that on hold while you
15 deliberate about what to do next, or are you rolling that
16 forward?

17 General Harris: I would say it is on hold at this time
18 until we understand where it is going to go. If we decide
19 that we are going to keep the F-15C, then we will go execute
20 and keep it to be safe platform to accomplish the mission.

21 Senator Warren: The reason I ask about this today is
22 because the majority of the F-15 fleet is used for the
23 Guard, and I just want to make sure the Guard does not get
24 the short end of the stick on this one. You know, on 9/11,
25 the F-15's, including from the 104th Fighter Wing in

1 Massachusetts, were some of the first aircraft in the sky.
2 These are our citizen airmen, and they have protected the
3 nation from the skies 24 hours a day, 365 days a year. And
4 I just do not see a scenario where they get retired anytime
5 in the near future. And if they are not going to be
6 retired, then I think we owe it to those who are flying
7 these planes that they have got equipment and resources that
8 they can depend on.

9 General Bunch: So, ma'am, I just want to say one
10 thing. We are a total force. We are not going to ignore
11 the Guard and Reserve. That is not part of what we are
12 doing. Okay? So I cannot tell you it is going to be
13 F-15C's. I am going to tell you that it is a total force.
14 That is the only way that we can execute our mission.

15 Senator Warren: I appreciate that and I am going to
16 hold you to it.

17 Senator Cotton: Senator Cruz?

18 Senator Cruz: Thank you, Mr. Chairman.

19 Gentlemen, thank you for being here. Thank you for
20 your service.

21 The Air Force has reported a shortage of approximately
22 2,000 pilots, including a shortage of about 950 fighter
23 pilots, which is essentially unchanged since last year.
24 Much of the training occurs in Texas from Joint Base San
25 Antonio, Randolph, and at Shepherd Air Force Base. And I

1 know they are working every day to resolve the issue.

2 Would you please update the committee on current
3 efforts to address this critical problem?

4 General Robinson: Senator Cruz, thank you for that
5 question.

6 And absolutely, the Air Force is laser-focused on that
7 problem.

8 The update I would offer is we have narrowed the very
9 focused study and analysis on root cause of the situation
10 and how to fix it. We have narrowed it down to three main
11 lines of effort. One, requirements. What are the total
12 requirements for the pilot force from squadron all the way
13 up to staffs?

14 Two, production. Do we have the production that we
15 need in terms of producing pilots through the entire
16 ecosystem, so initial training and graduate level training
17 all the way through to the military-ready pilot? And then
18 three, retention.

19 We have the most control over the requirements in terms
20 of influencing the decisions on that, very much fiscally
21 informed control over production, but we have figured out
22 that production is really the main effort. We have got to
23 set the production. Right now our current target is 1,400
24 pilots per year total force. We got to set it there and
25 leave it there. That is part of the problem, the root cause

1 of where we find ourselves in the position we are in now.
2 We have changed the production over the last 10 to 12 years
3 up and down, mostly tending downward.

4 And the retention. We have got a number of programs
5 that are underway to influence retention to make our airmen
6 want to stay and do this job. And it is not just aviation
7 bonuses, if you will. It is things like we have a talent
8 management system that we call which essentially is way to
9 give the member a bigger choice in their assignment
10 selection and a voice where they would like to go for their
11 next assignment, all the way through to things where they
12 can volunteer for long tours overseas. We have cut over
13 half of our 365-day tours overseas down to 6-month tours to,
14 again, make that more enticing for them to want to stay and
15 affect their quality of service, as well as their quality of
16 life for their families. A number of efforts there. And
17 other assignment options, second assignment in place policy
18 changes to allow them to have more stability for their
19 families, particularly for someone who has a professional
20 spouse or very concerned about the quality of education that
21 their children are getting with where they are.

22 Senator Cruz: So of the different steps you mentioned,
23 what are you seeing is having the most positive impact on
24 retention?

25 General Robinson: Right now, the most positive impact

1 that we are seeing are the things that are not necessarily
2 monetarily related. It is these options for choice in how
3 they would like to serve their country. We are also looking
4 at a 4 to 6-month study that we are about to undertake with
5 regard to a pilot-only or aviation-only technical track to
6 see how that would actually pan out for the Air Force, and
7 if we can achieve the proper outcomes, it is a win-win for
8 the service, as well as for the members.

9 Senator Cruz: And what else is needed from Congress in
10 terms of authorities or otherwise to help address this
11 problem?

12 General Robinson: Senator Cruz, right now we have
13 gotten tremendous support from Congress up to this point.
14 So we appreciate that greatly.

15 The effort that we just finished at the direction of
16 the Secretary of the Air Force, which was to get our fighter
17 pilot crisis to a 95 percent manning level and then total
18 pilot requirement up to 95 percent by the end of fiscal year
19 2023 is the goal she gave us. We are pursuing that quite
20 heavily. So as we work our way through the options that we
21 are going to offer to our senior leadership, we may come to
22 Congress for some assistance and policy changes and/or
23 perhaps some legislative relief if we find an alternative
24 way perhaps to do monetary pay versus aviation bonuses
25 versus another way. And we are looking at our coalition

1 partners that have air forces like ours that are as capable
2 and as advanced as ours, as well as our joint partners, for
3 how they handle those difficult challenges for those highly
4 needed mission areas.

5 Senator Cruz: Thank you.

6 General Bunch, let me shift topics. In the
7 Department's budget request, it included \$2.3 billion for
8 the development of the B-21 bomber. In fiscal year 2018, it
9 was \$2 billion. Could you describe to this subcommittee
10 what is planned to be done with that \$2.3 billion request?

11 General Bunch: So, sir, I will go into a lot detail
12 given the nature of the work that we are doing there. What
13 I will say is we are continuing the engineering,
14 manufacturing, and development. We are continuing some of
15 those risk reduction areas. What we are also doing is we
16 finished preliminary design review. We are on our way to
17 critical design review. We have manned up a good portion of
18 what we need to do. We are making everything ready to begin
19 our test program in the future, and we have delivered the
20 first set of software for that platform and we are going
21 through that. And then we are getting set up for the next
22 set of software to come in. We are making good progress. I
23 am comfortable today with where we are at in the progress
24 that Northrup Grumman is making on the program.

25 Senator Cruz: And one final question, shifting to the

1 F-35. Are you concerned about the cost of F-35 sustainment?
2 And if so, what efforts is the Air Force making to deal with
3 that? And what do you see of the consequences if that cost
4 is not reduced?

5 General Bunch: So, sir, we are worried about the cost.
6 The production costs are coming down along the lines that we
7 predicted from the program office, that the production costs
8 are coming down, the procurement cost of the assets. The
9 sustainment costs have been higher than what we would like.
10 We are working with the program office to look at what are
11 the high time drivers of cost. What are the areas that we
12 can attack? How can we work with Lockheed Martin? Can we
13 stand up our depots faster? What do we do to get more
14 people involved in the production of parts? How do we make
15 that work? All of those are efforts that are ongoing.

16 The program office has a room where they have got
17 multiple charts to show what activities they are trying to
18 do. We have small groups that have been stood up with all
19 the services and the acquisition executives of the services
20 and Ms. Lord's staff that we are working on those and coming
21 up with ideas. So we have a full court press on that area.

22 We do need to drive those costs down. We need to get
23 that to the point that it is not just cost effective to buy,
24 it has got to be cost effective to operate and maintain as
25 well, sir.

1 Senator Cruz: Thank you, General.

2 Senator Cotton: Senator Donnelly?

3 Senator Donnelly: Thank you, Mr. Chairman.

4 And thank you all for your service to the country.

5 I want to return to an issue I have discussed with
6 senior Air Force leadership before, the future of the 122nd
7 Fighter Wing in Fort Wayne, Indiana. They have made it
8 clear to me that the Air Force will maintain a manned air
9 combat mission in Fort Wayne and will continue to identify
10 opportunities for mission conversion going forward.

11 As you noted in your written testimony, the Air Force
12 has reinitiated the A-10 rewinging program to prevent
13 further groundings and ensure a minimum of six combat
14 formations remain in service until 2032. Unfortunately,
15 these efforts will not entirely prevent some of your A-10
16 units from aircraft grounding due to wing issues while the
17 wing box procurement program gets up to speed.

18 Fort Wayne's mission conversion to F-16's or F-35's
19 would allow the divestment of its 16 A-10's with enhanced
20 wing assemblies to other units in order to stabilize the
21 A-10 fleet until the winging program catches up with the
22 need. Not only that, if done promptly, the Air Force could
23 take advantage of the unit's scheduled dwell time for
24 conversion.

25 I understand that a site activation task force, or

1 SATF, will be necessary to validate the 122nd's mission for
2 an F-16 or F-35 conversion. When will you be able to begin
3 these processes in keeping with the commitments that I have
4 been given?

5 General Harris: Sir, unsure of when the process itself
6 will begin, but the commitment that the Chief and Secretary
7 have made to the unit about flying F-16's from the
8 Burlington transition is still solid. We expect that to
9 happen. What we intend to do -- the pace of the A-10
10 rewinging will not keep up with stopping future groundings.
11 There will be future groundings, but there will be enough
12 aircraft available to fly the squadrons that we need for our
13 combat operations and the capabilities. So from that
14 perspective, we will take the best of the A-10's that leave
15 and push them around to other units to make sure they have
16 flyable aircraft.

17 Senator Donnelly: When will there be documentation
18 that confirms an official conversion plan?

19 General Harris: As we complete our fighter force
20 study-- and part of that is tasked by Congress -- I expect
21 to have that out in fiscal year 2019, which will lay out our
22 F-35 beddown plan and what we are doing with the rest of our
23 fighter assets.

24 Senator Donnelly: I am sure you know there is nothing
25 standing in the way legislatively. Congress explicitly

1 clarified in section 134 of the fiscal year 2017 NDAA, that
2 the Air Force has authority to transition the 122nd to a new
3 mission, F-16's or F-35's, stands regardless of whether the
4 A-10 is retired.

5 General Harris: Yes, sir. We are aware of it.

6 Senator Donnelly: The 2014 report of the National
7 Commission on the Structure of the Air Force recommended
8 expanding the number of Air Force associate units. In the
9 coming years, as you make basing decisions on new platforms
10 and shape the future force structure of the Air Force, do
11 you foresee the Air Force expanding the number of associate
12 units nationwide?

13 General Harris: We do, sir. There is a lot of
14 advantage that we get from that expansion.

15 Senator Donnelly: Actually my next question was going
16 to be what advantages do the associate units offer you. So
17 please.

18 General Harris: So, sir, as we go through the
19 retention that we talked about, it is a total force issue,
20 and to be further clear, the pilot shortage we are having in
21 the Air Force also impacts our Navy and Marine Corps
22 teammates, but it is a national problem. Our airlines are
23 hiring 5,000 pilots a year, and when we get up to our max
24 capacity, we as a DOD will probably only generate about
25 2,500 pilots a year. So even as we are improving and fixing

1 our numbers, it is not going to be a national solution yet.

2 A lot of the experience that we are lacking right now--
3 we fix much of our maintenance issues with bringing in 4,000
4 new maintainers over the last 12 to 15 months. But they are
5 all young and they are not ready to maintain aircraft alone
6 and they need supervision. And a lot of that supervision
7 resides in our Guard and Reserve with those experience
8 levels. So bringing together more associate units will
9 actually help us experience and provide the supervision we
10 need to continue to have an effective and efficient force.

11 Senator Donnelly: Thank you, Mr. Chairman.

12 Senator Cotton: Senator Peters, you are in the chute
13 if you would like to. Otherwise we can give you a few
14 minutes to collect your thoughts. I have more questions.

15 Senator Peters: Well, if you want to ask a quick
16 question, that would be great.

17 Senator Cotton: I mean, we are ready for you to go if
18 you are ready.

19 Senator Peters: Well, I can be ready quickly.

20 My main question I understand was already asked and
21 answered, which dealt with A-10 rewinging. But I understand
22 that that has already been dealt with, an important question
23 for me in Michigan and Selfridge Air National Guard Base and
24 the A-10 squadron that is there. So I appreciated your
25 response there.

1 I just have one question. The Air Force Research Lab
2 has issued a 5-year phase I contract to develop and
3 demonstrate a new cruise missile called the Gray Wolf. The
4 missile includes network swarming behavior to counter
5 integrated air defense threats and provides flexibility in
6 highly contested environments.

7 I think frequently when people think of autonomous
8 systems, they think of remotely piloted aircraft or drones,
9 and when they think of autonomous weapons, they sometimes
10 think of terminator robots. But a munition like a Gray Wolf
11 could include both semiautonomous capability operating in a
12 swarm with collaborative algorithms and make the final
13 decision about what to hit once a strike is launched at a
14 target. And I know part of the Gray Wolf program's goal is
15 to ensure that munitions are cheap enough so that swarming
16 will be cost effective.

17 I think this reflects a technological trend in warfare
18 that the Air Force is certainly well positioned to take
19 advantage of, but it will also require a shift in thinking
20 as well. Low-cost swarms of munitions or platforms can be
21 an effective response to the proliferation of anti-
22 access/aerial denial systems.

23 But my question to you is could you please provide an
24 update on the Gray Wolf, as well as discuss the potential
25 for using network swarms, munitions, or platforms to defeat

1 air defense threats. Basically where do you see that going?

2 General Bunch: So, sir, I will take the first hit and
3 what I will do is say we will come and give you a more in-
4 depth brief on the Gray Wolf program and what we are doing.
5 I do not have those details with me today, so I apologize
6 for that. But that is an area that we will come back.

7 Senator Peters: I appreciate it.

8 General Bunch: What I will say is we are looking at
9 swarming technologies and autonomy. Those are areas that we
10 are very focused on as to how we are working with the
11 research laboratory, what can we demonstrate, how we would
12 be able to implement those as maybe a lower cost solution to
13 some of the problems. That is an area that we are looking
14 at, we are working on, and we believe has great promise for
15 something we can do in the future. But it is a mindset
16 change that we have to work our way through.

17 Senator Peters: Right.

18 General Robinson: Senator Peters, if I may add to
19 that. Our Chief has us very, very focused on network
20 aspects of warfare and thinking about that through
21 disaggregated connectivity, multi-domain command and control
22 and battle. So the Chief always asks with every new
23 platform that we get, that we attain, can it connect, can it
24 share, most importantly, can it learn. And that is where we
25 are headed with regard to how we put the network and the

1 systems of systems and employ them to be successful against
2 those near peer and peer adversaries.

3 Senator Peters: Right, great.

4 Yes, please.

5 General Harris: Sir, thank you for the opportunity to
6 speak.

7 This is important to us. It is part of our air
8 superiority 2030 system, family of systems. We recognize
9 that it is not going to be only a high-cost penetrating
10 capability that we need. We do need to have some standoff
11 capability, others that penetrate, and a different thinking
12 for those weapons. To that point, in the AI effort, through
13 AFRL in the next 5 years, we spend roughly \$1 billion, and
14 we expect that to only increase to get after systems like
15 this. So we are on that road.

16 Senator Peters: Great. Appreciate that.

17 General Bunch: We will come and give you specifics on
18 that specific program. I just do not have those details,
19 sir.

20 Senator Peters: Well, I appreciate that as well.

21 Thank you for your answer.

22 Thank you, Mr. Chairman.

23 Senator Cotton: Thank you, Senator Peters.

24 The buzzer was a vote on the floor, which means Senator
25 King and I will have about 10 minutes before we need to

1 leave to a vote.

2 I want to touch on two issues we have not touched yet
3 in this wide-ranging hearing.

4 First, remotely piloted vehicles. General Robinson,
5 would you please provide the committee an update on the Air
6 Force's RPA Get Well Plan?

7 General Robinson: Yes, Mr. Chairman. Thank you for
8 that question.

9 Where we are right now in our Get Well plan for RPA's
10 is we are essentially on track, and it is going very well.

11 One of our objectives was to establish a 10 to 1 crew-
12 to-combat line ratio to make the tempo sustainable for the
13 squadrons and what they do when they are deployed in place
14 in a deployed-in-place mission. And as well, we have got
15 the MQ-1 and MQ-9 formal training units up to 100 percent
16 manning, which we did that by the first quarter of fiscal
17 year 2017. In fact, we actually exceeded that with regard
18 to our combat crew ratio or crew-to-combat line ratio. We
19 are actually at 11.3 to 1 in that regard.

20 And now we are taking that effort that we have done
21 there to see what we can learn, lessons learned, and apply
22 that to RQ-40 and RQ-170's going forward.

23 Senator Cotton: And second, the fiscal year 2017 NDAA
24 directed the Air Force to transition a significant number of
25 RPA pilots to enlisted personnel by the end of fiscal year

1 2020. What is the status of that transition, and do you
2 expect to complete it in compliance with the fiscal year
3 2017 NDAA?

4 General Robinson: Yes, sir. If I may correct one
5 comment I made. I said MQ-1/MQ-9. The MQ-1's are about
6 done and retired. So now it is a focus on the MQ-9's.

7 But to your more current question, again we are on
8 track there. We expect that we will achieve 100 regular Air
9 Force enlisted pilots by September 2020. Right now, we have
10 11 enlisted pilots that are all flying operational missions
11 that have completed training. We have got 30 in this fiscal
12 year's pipeline and 30 have been identified for fiscal year
13 2019's pipeline as well.

14 Senator Cotton: Thank you.

15 Senator King?

16 Senator King: Since we do have to go and vote, I am
17 going to run through some very quick thoughts and perhaps
18 follow up with questions for the record.

19 I am interested in the JSTARS replacement, the Compass
20 Call situation. And the fundamental question is if
21 survivability is an issue for the JSTARS, which I understand
22 is one of the reasons the Air Force is thinking of canceling
23 that RFP, are those issues not going to be consistent for
24 Compass Call as well or for whatever replacement, or is that
25 part of the idea of designing the replacement?

1 General Harris: Sir, there are similarities, but the
2 mission is a bit different in the Compass Call where it is
3 part of the kill chain that is in a different way than the
4 JSTARS. So, yes, some of the threat systems that can impact
5 the JSTARS have some bearing on the Compass Call but because
6 we are further ahead in that, where we are headed with the
7 Compass Call recap and the transport of that over to
8 basically a commercial platform is still in our best
9 interest or from a JSTARS recap perspective, we feel it is
10 better to get after this effort in a different domain with
11 different capacity and capability by networking centers that
12 are already in the airspace.

13 Senator King: Is that technology mature? Are we ready
14 to go with it, or is that going to generate a delay, the
15 fact that we are going to new capabilities, new
16 technologies?

17 General Harris: So the technology is maturing as we
18 go.

19 Senator King: That worries me. That statement makes
20 me nervous. I want mature technologies before we go.

21 General Harris: It is a three-increment process for
22 our proposed plan in the fiscal year 2019 budget. And we
23 have a decision time, space in fiscal year 2023 that allows
24 us, if we are behind with increments 2 and 3, that
25 technology concern, it is a low risk from our perspective at

1 this time. But in 2023, if we decide that we are still
2 behind in late delivering increment 2 or increment 3, we can
3 extend our current 707 fleet additional years after to
4 continue to provide that capability.

5 Senator King: Let us move quickly to light attack
6 aircraft, the OAX. I understand we are talking about
7 developing a new aircraft. The funds are in the budget for
8 further experimentation. We thought maybe we would be in a
9 selection stage, but you feel that more work is necessary
10 before you go in this direction?

11 General Bunch: Sir, we made the decision that we did
12 not need to do the combat demonstration because of the
13 valuable data and enough of the information we got on some
14 of the areas during the first phase of the experiment.

15 Senator King: Will this new plane have capabilities
16 that the A-10 does not? I have been sitting through
17 hearings now for 5 years, and the Air Force seems to hate
18 the A-10. Congress seems to like it. What are we gaining
19 by discontinuing the A-10?

20 General Bunch: Sir, this is not relative to
21 discontinuing the A-10. This is additive capability for the
22 United States Air Force. What we are trying to do is do a
23 cost shift. What we are trying to do is buy something that
24 is lower cost and lower to operate and allow us to pull our
25 higher-cost-to-operate fourth and fifth gen platforms out of

1 the permissive environment and do that in a more cost
2 effective manner and still be able to get the mission done
3 and allow our fourth and fifth gen aircraft to train for the
4 high-end fight. So it is not to replace the A-10. It is to
5 provide a capability that we can put in a permissive
6 environment and be able to execute the mission. It will
7 allow us to --

8 Senator King: A permissive environment is an
9 environment without antiaircraft. Is that what you are
10 saying?

11 General Bunch: To a certain level, sir. We would have
12 some threats on the ground, a ground shoot from troops,
13 those kind of things, some lower end surface-to-air, not
14 much, but it is a more permissive environment which we could
15 do many of the missions we do in today's environment. We
16 could execute with a platform like that.

17 Senator King: Are you satisfied with the progress you
18 have made on developing this new vehicle, if you will?

19 General Bunch: Sir, I am satisfied with where we are
20 at. We need to do the next phase of the experiment so that
21 we can get additional information relative to logistics and
22 sustainment, and we are trying to put a network in.

23 Senator King: I want to submit a question for the
24 record about maintenance costs of the F-35. Secretary
25 Wilson testified that that was a real problem, and I would

1 like some more detail on that, what is being done to address
2 that question.

3 Finally, General Robinson, Chairman Cotton and I had a
4 fascinating meeting about 6 months ago with a group of your
5 pilots. It was essentially a focus group. And it was very
6 interesting to us that it was not money that they were
7 mostly interested in. It was they want to fly. And they
8 talked about establishing if you want to be a pilot, you can
9 be a pilot. You do not have to go on a track to be a
10 general officer or do other things. And I hope that is
11 something you are considering as you talk about this
12 retention issue.

13 General Robinson: Yes, Ranking Member King. So
14 basically from our Air Crew Crisis Task Force in the next 4
15 to 6 months, we are going to explore the possibilities for
16 what we are calling an aviation technical track, so a fly-
17 only track for our airmen. And then we have a report out to
18 the Secretary of the Air Force --

19 Senator King: If you have not done it already, I would
20 urge you to do what we did, get a bunch of pilots in a room
21 with somebody that knows how to facilitate a conversation
22 and without you guys sitting in the room and listen and get
23 a report on what they say. I thought -- I think the
24 chairman would agree -- it was very informative. So I hope
25 that is something you might --

1 General Robinson: Yes, sir. We have done one of those
2 about a year ago, and we continue to look at opportunities
3 to do those again.

4 Senator King: Thank you.

5 Thank you, Mr. Chairman.

6 Senator Cotton: It was informative, and I do think
7 what Senator King says is a real option, similar to the
8 Army's warrant program. I know people in the Army who
9 resigned their commission after being a special forces team
10 leader because they did not want to sit at a desk and plan
11 for other special forces teams. They were given a chance to
12 become a warrant officer and stay with the team. So I do
13 think it is an option. I know General Goldfein said that
14 Lieutenant Goldfein probably would have taken that option,
15 and that might not have been the best thing for the Air
16 Force. Maybe Lieutenants Robinson, Harris, and Bunch would
17 have taken those options as well, although your captains and
18 majors informed us that they were the best pilots, much
19 better than the colonels, for your information.

20 [Laughter.]

21 Senator Cotton: Gentlemen, thank you again for your
22 testimony. It has been a very wide-ranging and informative
23 hearing.

24 There will be questions for the record, as Senator King
25 said, some others said. We will try to be prompt with those

1 so you can be prompt with your answers as well.

2 This is hearing is adjourned.

3 [Whereupon, at 4:40 p.m., the hearing was adjourned.]

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