

Stenographic Transcript
Before the

Subcommittee on Airland

COMMITTEE ON
ARMED SERVICES

UNITED STATES SENATE

HEARING TO RECEIVE TESTIMONY ON
AIR FORCE MODERNIZATION

Wednesday, March 29, 2017

Washington, D.C.

ALDERSON COURT REPORTING
1155 CONNECTICUT AVENUE, N.W.

SUITE 200

WASHINGTON, D.C. 20036

(202) 289-2260

www.aldersonreporting.com

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

HEARING TO RECEIVE TESTIMONY ON
AIR FORCE MODERNIZATION

Wednesday, March 29, 2017

U.S. Senate
Subcommittee on Airland
Committee on Armed Services
Washington, D.C.

The subcommittee met, pursuant to notice, at 3:30 p.m.
in Room SR-222, Russell Senate Office Building, Hon. Tom
Cotton, chairman of the subcommittee, presiding.

Committee Members Present: Senators Cotton
[presiding], Tillis, Sullivan, King, Blumenthal, Warren, and
Peters.

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

3 Senator Cotton: The hearing will come to order.

4 Today we'll be discussing the future of our Air Force,
5 what shortfalls we need to fix, what capabilities we need to
6 develop. As we all know, Congress has a tendency to think
7 in one-year increments, a handicap our rivals are only too
8 happy to exploit.

9 So I consider this hearing our opportunity to take the
10 long view. We'll get an update on the problems we heard
11 about last year, like the shortage in fighter pilots and in
12 crew members for remotely piloted aircraft. We'll also talk
13 in more depth about how to keep our technological edge over
14 the next 10 years.

15 The truth is, we've been losing ground for years. As
16 Lieutenant General Stephen Hoog noted a little over two
17 years ago, at the beginning of Desert Storm we had 134
18 combat squadrons. By 9/11, we were down to 88. Today,
19 we're at 55. In fact, he argued, if we were to conduct
20 Operation Desert Storm today, we would have to "completely
21 strip out Asia or strip out Europe, and we'd still be short
22 of the combat power we had in Desert Storm." And that was a
23 relatively small conflict against one country in one region.

24 We all know how we got here. The last administration
25 made severe cuts to the Defense budget, which Congress did

1 far too little to oppose, and since then the threats to our
2 national security have multiplied, whether it's the Islamic
3 State, Russia, China, North Korea, or Iran.

4 At the very moment when the dangers to our country are
5 increasing, the Air Force's capacity, readiness, and
6 capabilities are decreasing. But now we have a new
7 administration that recognizes this dire situation. The
8 President has promised to build a military that far outpaces
9 our rivals. The question we want to discuss today is how do
10 we do that?

11 I will be particularly interested to hear from our
12 witnesses how the Air Force plans to modernize its forces as
13 part of the larger effort to rebuild our military. A strong
14 Air Force is key to our joint war fighting capability. We
15 have to be able to deploy and support forces anywhere on the
16 globe, and to do that we need a sufficient strategic and
17 operational reserve, national mobilization capability, and
18 robust defense industrial base.

19 What we do this year will determine how we fare over
20 the next 10 years. The stakes are high, and I know all of
21 us here take them very seriously.

22 I look forward to hearing our witnesses' testimony.
23 All three of them come from the Air Force's headquarters at
24 the Pentagon: Lieutenant General Mark Nowland, Deputy Chief
25 of Staff for Operations; Lieutenant General Arnold Bunch,

1 Military Deputy, Office of the Assistant Secretary of Air
2 Force for Acquisitions; and Lieutenant General Jerry Harris,
3 Deputy Chief of Staff for Strategic Plans, Programs and
4 Requirements.

5 Gentlemen, thank you all for appearing today. Thank
6 you for your many decades of distinguished service to our
7 country in uniform.

8 Senator King?

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

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

2 Senator King: Thank you, Mr. Chairman.

3 I want to extend a welcome and thank you to each of our
4 witnesses for appearing before the subcommittee today. I
5 look forward to hearing your testimony and discussing these
6 important issues.

7 Last week the subcommittee heard from the Army
8 witnesses about the challenges that the Army has in its
9 modernization. Following our first hearing two weeks ago on
10 all armed warfare in the 21st century, it's clear that both
11 our ground and air forces need to reestablish the
12 capabilities required to dominate -- I emphasize dominate --
13 near-peer adversaries across the full spectrum of military
14 operations.

15 Today I'm looking forward to hearing from our Air Force
16 witnesses about the challenges and opportunities they face
17 in modernizing the Air Force. I'm especially interested in
18 hearing from the witnesses how the Air Force plans to manage
19 its multiple modernization programs in ways that deliver the
20 capabilities our war fighters need to defeat our most
21 capable adversaries on a timely basis -- I want to emphasize
22 on a timely basis -- while protecting our taxpayers'
23 dollars. Often, in acquisition matters, timeliness as well
24 as dollars are important considerations.

25 Too many defensive acquisition programs over-promise

1 and under-deliver on cost and schedule, and we must do
2 better if we're going to effectively modernize our fighter,
3 bomber, aerial refueling and other fleets to the levels
4 required to meet our future requirements.

5 Our witnesses this afternoon face huge challenges as
6 they strive to balance the need to support ongoing
7 operations and sustain readiness with the need to modernize
8 and keep the technological edge so critical to successful
9 military operations. Resources are never unlimited, and the
10 Air Force must make investments based on near-term risks as
11 well as future threats to procure new weapons, upgrade
12 existing platforms, and fund research and development
13 accounts.

14 Our Air Force will bear the brunt of dealing with the
15 anti-access, aerial denial threats that our Armed Forces may
16 and likely will face in the future. These challenges are
17 made particularly difficult by the spending caps imposed by
18 the Budget Control Act. These caps were relieved somewhat
19 for Fiscal Year 2016 and 2017 in the bipartisan Budget Act
20 of 2015, but the caps again take effect in 2018 and are not
21 automatically nullified by making cuts in non-defense
22 discretionary programs.

23 Every year we are challenged to make decisions
24 balancing a number of competing demands for resources,
25 including resources for current operation and investment in

1 future modernization. In the absence of specific budget
2 proposals, however, we will be assessing overall plans and
3 programs regarding current and future aviation programs.
4 There are a number of other issues that we need to discuss,
5 but in the interest of time I will stop here and wait for
6 our discussion.

7 Again, I want to thank our witnesses; and thank you,
8 Mr. Chairman, for calling this hearing.

9 Senator Cotton: General Nowland?

10 General Harris: Sir, may I start?

11 Senator Cotton: You may, General Harris.

12 General Harris: Yes.

13 Senator Cotton: Did you draw the short straw this
14 morning?

15 General Harris: I did, sir.

16 Senator Cotton: Okay. Sorry to hear that.

17 General Harris: It's because I'm younger. They're
18 more experienced.

19 Senator Cotton: You have the most hair.

20 [Laughter.]

21 General Harris: I'm not sure.

22 [Laughter.]

23

24

25

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

9 General Harris: Sir, thank you for having us here
10 today to continue our discussion on Air Force modernization.

11 To the several members of the committee who have served
12 in our Armed Forces before, a special thank you for
13 continuing to serve this great nation.

14 First, we would like to enter our written statement
15 into the record.

16 Senator Cotton: So entered.

17 General Harris: Your United States Air Force is always
18 there. We're providing global vigilance, global reach, and
19 global power. The demand for our service has never been
20 higher, even though we are 38 percent smaller, already
21 noted, than we were in 1991.

22 We've been continuously deployed across the globe, and
23 our adversary has been watching and copying us, learning
24 from us every day, year in and year out. The world is
25 changing, and our adversaries are catching us faster than we

1 predicted. To ensure we keep the advantage across the
2 entire spectrum of warfare, we must modernize our nuclear
3 forces, our conventional forces, and the projection of those
4 forces in air, space, and cyber domains.

5 We're increasing our fighter and tanker procurement to
6 modernize the force, and soon we'll be producing the B-21 to
7 modernize our long-range strike fleet.

8 We are also in the early stages of replacing a portion
9 of our training aircraft, which will enable shorter training
10 timelines and better-trained air crew.

11 We are also modernizing some of our older aircraft,
12 extending their durability, and providing increased
13 capability to kill and survive in combat.

14 We're making progress with the space fence, protected
15 SATCOM, and our Joint Space Operation Center.

16 Our number-one asset is our airmen, and we continue to
17 grow them. Venues such as this give us the opportunity to
18 highlight our efforts, and we appreciate the opportunity to
19 partner with the subcommittee. Thank you.

20 [The prepared statement of General Harris follows:]

21

22

23

24

25

1 Senator Cotton: General Bunch?

2 General Bunch: Sir, for the three of us, that one
3 statement. We look forward to answering your questions.
4 Thank you, Senator Cotton, Senator King, for the opportunity
5 to be here today.

6 Senator Cotton: Thank you. I appreciate it.

7 So, as we know, the Department of Defense, like all
8 departments, is operating under a continuing resolution
9 until April 28th. The situation is far from ideal. There
10 is a potential, though, for a full-year continuing
11 resolution for all of Fiscal Year 2017. That would be far
12 more damaging to our military services because of ongoing
13 budget disagreements within the Congress.

14 Can I ask each of our witnesses to give examples from
15 their respective areas of the damaging effects a full-year
16 budget under a continuing resolution might have, General
17 Nowland, from an operations and readiness perspective;
18 General Bunch, for program acquisition; and General Harris,
19 for long-term strategy effects?

20 General Nowland?

21 General Nowland: Mr. Chairman, thank you for the
22 opportunity. A continuing resolution would devastate the
23 readiness that we're trying to regenerate. Basically, in
24 air, space, and cyber, it would have operational effects as
25 we are working to regain our readiness. We would prioritize

1 to make sure that we continue to do the deployed mission,
2 but those other units who are not either deployed or
3 preparing to deploy, they would suffer readiness realities
4 because they would basically have to stop flying in the air
5 domain. The other missions in space and cyber would
6 continue, but training opportunities would be lost.

7 General Bunch: Mr. Chairman, in the acquisition
8 community, a year-long continuing resolution would be
9 devastating for the efforts that we're trying to do to
10 modernize our Air Force. In the critical area of nuclear
11 programs, we would require as many as 17 anomalies if we
12 could afford to do that within our existing programs to keep
13 these critical upgrades to the B-2, the B-52, Minuteman, and
14 our NC3 capabilities on track.

15 It would also impact 60 Air Force acquisition new
16 starts that we had planned across the spectrum, and we would
17 end up needing another anomaly to cover the B-21 program,
18 which is off to a good start at this point.

19 It would impact us in missile and ammunition
20 procurement. It would impact us in our modernizations to
21 aircraft and our procurement to include Compass Call. It
22 would impact us in missile procurement. It would impact us
23 in space procurement with our beyond-line-of-sight terminals
24 and our evolved expendable launch vehicle programs, intended
25 to assure that we have mission assurance in space. And it

1 will result in a stop work issued against the GPS OCX
2 program, just to name a few.

3 Senator Cotton: You mentioned the B-21. What about
4 two other of your largest procurement programs, the F-35 and
5 the KC-46A?

6 General Bunch: So the F-35 right now, I do not have an
7 anomaly that we're listing as one we would need at this
8 stage, sir. On the KC-46, we provided an anomaly, and we
9 were able to go award lot 3 already under the continuing
10 resolution to keep the production program on track at the
11 price bands that we had negotiated with Boeing when we
12 awarded the contract.

13 Senator Cotton: You mentioned a lot of anomalies. How
14 would you end up prioritizing and balancing those?

15 General Bunch: Sir, that's why I said if we could
16 afford to do that. What we would have to do is work with
17 the remainder of the team and look at where those
18 modernizations are for the longer-term plan that Joe Harris
19 talks about and determine which areas we could take risks in
20 or which areas we could not take risks in.

21 Senator Cotton: General Harris?

22 General Harris: Thank you, Chairman. That's a great
23 question. We appreciate the opportunity to address it.

24 A continuing resolution, to be honest, would be
25 something that our adversaries haven't been able to do to

1 your Air Force, and that's going to be ground us, which, as
2 you said, we're trying to avoid. With the current hole that
3 we would be in, it's about \$600 million in our flying hour
4 program alone. That's 120,000 flight hours, and your Air
5 Force goes through that in a month-and-a-half. So it would
6 be the last month-and-a-half the entire Air Force would have
7 to stop flying, but because we can't do that, it would start
8 affecting units almost immediately, forcing their grounding,
9 and that turns around our readiness program.

10 The airmen that we talked about are the most important
11 to us and our chief, number-one effort. We'd have to defer
12 all those bonus payments that we were setting up to cover to
13 retain them, which means we're going to be training more and
14 creating a bigger hole in our future programs.

15 Senator King: I want to push down a little bit on the
16 effects of a continuing resolution. I agree with you that
17 it's no way to govern, and we shouldn't be even thinking
18 about a further continuing resolution for the rest of the
19 year.

20 However, basically it means that you have the same
21 amount of money that you had last year. Why is it that it
22 creates such a problem? For example, General Harris, you
23 just said you'd have to ground the squadrons for two months
24 at the end of the year. You didn't have to ground them last
25 year. I'm unclear as to why it would have that effect.

1 General Harris: Sir, that's a great question. We are
2 actually flying more this year, trying to improve our
3 readiness status. So we had been at that since 1 October
4 based on the signals and messaging we've had from both
5 Congress and OSD. So we're flying at a rate greater than
6 last year, trying to reverse our readiness trends and have
7 more airmen prepared to fight the high-end conflict, not
8 just today's fight. So we're ahead of last year's curve
9 significantly, trying to get these airmen up to speed.

10 Senator King: So basically what you're saying is if
11 you don't have additional funding over and above what you
12 had for last year, you'd run out of money and that's why
13 you'd have to ground those squadrons.

14 General Harris: That's exactly right, sir.

15 Senator King: General Bunch, the same question. Why
16 such a drastic effect if indeed you're having the same
17 amount? This is what my taxpayers in Maine would say:
18 They're getting the money that they got last year; why would
19 there be such a drastic effect on various programs?

20 General Bunch: Yes, sir. So, some of these programs -
21 - for example, OCX -- if you recall, we had to plus up the
22 budget to get the program back on track. That's a program
23 where we're going to be spending more money this year than
24 we were before, so that's an example of that.

25 On our weapons procurement, one of the things that

1 we've seen is the desire and the continued utilization of
2 precision weapons to minimize collateral damage and
3 dependence on those, and that demand signal has gone up, and
4 we have tried to respond to that by trying to increase the
5 production of joint direct attack munitions, small diameter
6 bomb, Hellfire, and advanced precision kill weapons system.
7 All of those were on a ramp to plus back up so that we can
8 rebuild our stockpiles and match what we're utilizing in the
9 fight today.

10 Senator King: Isn't that what OCO was all about?

11 General Bunch: So the problem -- it is, sir. But the
12 problem with OCO traditionally, last year you allowed us to
13 take some OCO dollars and predict what our utilization would
14 be so that we could procure weapons. That's not
15 traditionally how we've been able to do that. So that
16 helped us. The problem with OCO is it's years before I can
17 get to the point that I fill back up those stockpiles.

18 What we're trying to do is send a steady signal with
19 stable funding and a demand signal to the industrial base so
20 that they keep the production levels up at what we need, not
21 only for us but also for our partners, and also for foreign
22 military sales and for other activities as we fight around
23 the world.

24 Senator King: So part of the problem with a continuing
25 resolution is predictability and maintaining your

1 acquisitions and maintaining the industrial base.

2 General Bunch: Sir, the way that we describe, I
3 describe, particularly in the weapons area, is for many
4 years we've been full up on the throttle and full back on
5 the throttle, and what we've got to do is set a stable
6 throttle and continue to keep stable funding to send that
7 signal to industry so that industry is willing to make the
8 investments so that they can support what we need to
9 procure.

10 Senator King: I hesitate to speculate how a jet
11 airplane would fly if Congress was in the driver's seat, the
12 pilot's seat.

13 In your prepared testimony, one of the most, I thought,
14 troubling pieces -- and this is returning to the longer-term
15 issue -- is manpower shortfalls, particularly pilots and
16 maintainers. This appears to be a serious, ongoing problem,
17 and particularly in the next few years I understand there
18 are a great number of retirements in the commercial side,
19 and you're seeing a loss of people.

20 How do we cope with the shortfall in pilots, and also
21 maintainers?

22 General Bunch: Senator King, that's a fantastic
23 question. Our Air Force and our chief has directed that we
24 take this on head-on. The answer is we're going to need a
25 little bit of help from everybody, work with industry, work

1 with Congress, but what we can control we're taking on right
2 now. The first thing we need to do, sir, is we're working
3 on our requirements.

4 So we have a rated staff allocation plan, which is as
5 you look at your United States Air Force, not every pilot is
6 flying. Some pilots are doing staff duty, some pilots are
7 doing training duties --

8 Senator King: Wouldn't pilots rather be flying?

9 General Bunch: Yes, sir, they would, but not for their
10 entire career because we need pilots in staff positions so
11 that we can make good decisions about future acquisition,
12 about future con ops, about command and control. So we have
13 a myriad of duties.

14 Our young pilots, your first 11 years of your career
15 essentially, sir, is built around building technical
16 capability. So that's really where the vast majority of our
17 pilots, our young pilots, are. As you become older, we need
18 less older pilots, but we need to use them to train our Air
19 Force and to operate our Air Force. But we basically have
20 cut our staff, so we're looking at requirements.

21 The second thing we do is we're increasing production.
22 We are pushing up our production to the maximum capacity
23 that we can, and in particular with fighter pilots we're
24 going to try to produce 335 total force fighter pilots per
25 year, and we're going to produce those continually for the

1 next five to seven years. We need to just produce those
2 pilots to fill in gaps.

3 As we do that, we will also create mobility pilots, but
4 we also have a responsibility to build coalition and
5 international pilots. So we're going to maximize our
6 production while balancing our training requirements.

7 Senator King: My time has expired, but we're going to
8 get back to this. I want to follow up on how we're going to
9 do the retention. I think that's very important. And also
10 recruit and retain people who are maintaining, because you
11 can have pilots, but if the planes aren't ready, that's a
12 problem too.

13 Mr. Chairman, thank you.

14 Senator Cotton: Senator Tillis?

15 Senator Tillis: Thank you, Mr. Chair.

16 Gentlemen, thank you for being here and for your
17 service.

18 The question I want to focus a little bit on, the
19 continuing resolution and the effect that it may have. But
20 before I do, I've got a couple of baseline questions.

21 How many squadrons do we currently have that are at
22 their highest level of certification or readiness?

23 General Harris: Sir, it's not many. It's less than
24 half that are in what we would call Level 1 or Level 2
25 readiness.

1 Senator Tillis: How many are at Level 1?

2 General Harris: Three, maybe four.

3 Senator Tillis: I think it's four. And that's a total
4 of how many squadrons?

5 General Harris: Fifty-five.

6 Senator Tillis: And the number of pilots that you all
7 would like to have versus how many you need, how far behind
8 are we?

9 General Harris: Sir, we are probably 700 to 1,000 in
10 the Air Force alone; and, as we're talking about, we're
11 increasing our production now. The bonus increase that
12 Congress has given us will help us retain more of those mid-
13 level pilots, but we don't think it's enough. Although
14 we'll never keep up with airline salaries, currently between
15 us and the Navy are producing about 2,200 pilots a year.
16 This past year that we're finishing now, airlines are hiring
17 4,000. We're only producing 2,200.

18 General Nowland: Sir, we're 1,555 total force pilots
19 behind today.

20 Senator Tillis: Okay, it's even worse than I thought.

21 Now, with that sort of as a baseline, I don't think you
22 all would put that as something you're really happy with and
23 that's in the best interests of the national security, or
24 really, for that matter, the morale of the Air Force. Let's
25 say that some people around here are going to declare

1 victory and high-five if we get a continuing resolution
2 passed for 12 months that has, let's say, even the numbers
3 that we talked about here in terms of increased spending.
4 How do those numbers change at all over the next 24 months?
5 Do they get better, worse, or stay the same?

6 General Harris: Sir, they'll get worse. First off, we
7 won't be able to close out '17 at our end strength that
8 we're looking for of 321,000. We'll fall short of that
9 number, and that will just compound as we go forward. The
10 chief and secretary are trying to grow the number of airmen
11 we need -- maintainers, ops, flyers, those that are working
12 across the spectrum. Right now, we just don't have enough
13 doing the mission.

14 Senator Tillis: If passing the CR was what many people
15 think here would be a success, I don't think anybody in
16 uniform would think it was a success, particularly those who
17 are worried about our readiness and our capability and our
18 ability to project power.

19 Lieutenant Bunch? Or General Bunch. I'm sorry.

20 General Bunch: I was one once, sir. I was a
21 lieutenant.

22 Senator Tillis: A little younger.

23 General Bunch: A day or two ago, sir, and still loving
24 it. It would be devastating for us --

25 Senator Tillis: Devastating.

1 General Bunch: -- if we take a continuing resolution
2 throughout the year. We'll be at \$2.8 billion short. We
3 will have to find a way to fund within five months.

4 Senator Tillis: My next question relates to the sad
5 reality that that may be the best that we can expect. I
6 hope we can get more, but that may be the best we can
7 expect.

8 What advice would you give to us in terms of other
9 things we could do that could remove some of the hurdles or
10 allow you to be more productive with the money that you have
11 if we're constrained by money? I don't want to be. I think
12 that we need to place a priority on the challenges that you
13 have and all the other branches have. But what other things
14 should we be looking at that you haven't heard any movement
15 on that could potentially increase your flexibility, reduce
16 burdens, reduce inefficiencies to at least help bend the
17 curve on what is otherwise just an undeniable downward
18 trend?

19 General Harris: Senator, that's not an easy task to
20 come up with. We do have some new starts that we are trying
21 to get through authorizing those with the money would help,
22 allowing us to move money, if necessary, left and right to
23 cover some of these shortfalls. I think we're already doing
24 that, and we have good support from Congress. But not
25 having a stable budget from year to year really impacts my

1 ability to work on my 5-, 10-, and 20-year plans.

2 Senator Tillis: No doubt about it. I mean, we can sit
3 here, and we beat you all until you bleed, we beat you for
4 bleeding, for cost overruns on certain projects, but we
5 create the structural inefficiencies that cause that to
6 happen. You can't make a long-term supply chain
7 optimization outcome happen unless you have a long-term
8 spending horizon to plan it on.

9 General Bunch, you were going to say something?

10 General Bunch: Yes. I would just say, sir, that
11 Congress has been very helpful with us when we've come in on
12 critical acquisition programs, to give us the anomalies, and
13 we appreciate that support. But if we go for the year long,
14 and I talked about the number of nuclear anomalies we would
15 need and the number of new starts, all that is out of
16 balance with what limited amount of money we've got, and
17 we've got to make trades, and we have to work on all of
18 these together, and that would be very challenging to do.

19 Senator Tillis: In my remaining time I don't expect an
20 answer, but we would like to hear back from you specific
21 things so that we can ease the burden. If we're going to
22 get to a point to where the CR is all we can get, please
23 give us feedback on things that we can go nail down that at
24 least make you managing in this fiscally tight time more
25 efficient. It shouldn't be the solution, but at least it

1 provides some relief that we're not really talking enough
2 about now.

3 Thank you, Mr. Chair.

4 Senator Cotton: General Nowland, you said you have a
5 shortfall of 1,555 total force pilots today?

6 General Nowland: Yes, Mr. Chairman.

7 Senator Cotton: What's your shortfall of fighter
8 pilots today?

9 General Nowland: Sir, today, as of today, we're 950
10 fighter pilots short across the total force.

11 Senator Cotton: Thank you.

12 Senator Sullivan?

13 Senator Sullivan: Thank you, Mr. Chairman.

14 And gentlemen, thank you for testifying today and your
15 service, appreciate it very much.

16 I wanted to talk about another shortfall that we were
17 trying to get some more focus on. In NDAA last year, I
18 sponsored a provision that asked for a report on the F-35
19 maintainer shortage, and I think that was due a couple of
20 weeks ago. I know you're busy, so maybe we can see that
21 relatively soon, or maybe it's already completed.

22 But the point of the amendment was actually to be
23 helpful, to try to get your ideas on how we actually close
24 that gap. My one question -- that language was based on the
25 end strength of 321,000. I think General Goldfein talked

1 about end strength of 350,000. What does that do to the
2 maintainer shortage, and will you be explaining that kind of
3 increase on end strength and what we need to do to address
4 the maintainer shortage in the report?

5 General Harris: Senator Sullivan, I'll start with
6 that. Thank you. Sorry if we're late on the report. We'll
7 work on that.

8 Senator Sullivan: We know you've got a lot going on.
9 And like I said, that was not a smack-you-down provision.
10 That's a provision trying to help.

11 General Harris: Understand.

12 Senator Sullivan: Because it's an important issue.

13 General Harris: What we're looking at doing, when the
14 chief talks about closing out this year at 321,000, that
15 includes growth in our maintainers. We are over-assessing
16 from our current need of what we need of new recruits,
17 because it takes us so long to train. We recognize that
18 we've got to bring them in somewhere. So we're bringing in
19 more than 1,000 now than we had planned in the long-range
20 plans and picking that up. So we will get healthy over
21 time, but it will become an experience issue for a while.
22 We won't have too many 3 level, and 5 and 7 level.

23 As we grow to 350,000, that will help the chief right-
24 size all of our squadrons. Right now, it's about 80 percent
25 manned across any squadron. We're trying to work on the ops

1 and maintenance first to get at the combat capability, but
2 we certainly need the support so that we have the quality of
3 life that takes care of all the airmen that are flying to
4 make sure we can retain them when they're at mid-level
5 career and they get those other choices that are out there.

6 Senator Sullivan: And more broadly speaking, how are
7 we looking on the F-35 production, the cost, the deployment?
8 Obviously, the President was talking about this for some
9 time, and I think General Mattis or a senior Air Force
10 official took that over. Are we seeing cost reductions and
11 the deployment schedules on schedule right now?

12 General Bunch: Sir, let me start with that, and then
13 I'll let these two gentlemen jump in.

14 We are seeing General Bogdan driving cost savings into
15 the program through his efforts with Lockheed Martin. We
16 are seeing it come down, the price curve, the way that we
17 want it to. It's at or better than what General Bogdan had
18 been trying to drive to, to show us what we were doing.

19 So one of the things we're asking for is please keep
20 driving that cost down and --

21 Senator Sullivan: And I think it's helpful to have the
22 President of the United States raising that and pushing on
23 that, too.

24 General Bunch: Sir, we love anybody that's putting
25 pressure on us to try to save money. We're all good with

1 that.

2 Senator Sullivan: That's your ultimate leverage.

3 General Bunch: Yes, sir. So we are seeing that. The
4 message we have given out is we need to see those costs
5 continue to come down. We want to see the sustainment costs
6 continue to come down, and we want to continue to --

7 Senator Sullivan: Is that process impacting the
8 schedule of deployments, or no? I mean, it's a different
9 place.

10 General Bunch: So right now we haven't deployed. We
11 have done Red Flag, and I'll let these gentlemen talk to
12 that. But right now we're staying on track with the
13 production the way we want it, the fielding the way we want
14 it and intended, and the schedule is moving forward with the
15 completion of the 3-F testing. So we're moving in that
16 direction, and I'll pass it over to General Nowland and
17 General Harris to address the Red Flag and how the jet is
18 performing.

19 Senator Sullivan: So there's no right movement?
20 Aren't the Marines getting a new IwoKuni and Bravos?

21 General Nowland: Senator Sullivan, the Marines have
22 moved them to IwoKuni. Our first operational squadron
23 initial operational capability is at Hill Air Force Base.
24 They recently deployed the Red Flag and had a very
25 successful Red Flag. We are next going to take them and

1 they're going to go to Europe on a theater security package
2 and work through initial operational capability, working
3 towards full operational capability as we work to develop
4 the capability of the system, the network, how do we bring
5 it all together and how do we deploy with the two increased
6 combat capability.

7 Senator Sullivan: Okay.

8 General Harris: And, sir, the pilots that are flying
9 this airplane, the Red Flag, love it. They step down out of
10 the cockpit and they tell stories of the kill ratios that
11 are phenomenal. Those that have flown Red Flag in now fifth
12 gen and fourth gen wonder why they ever did it in a fourth
13 gen airplane.

14 General Bunch: Sir, what I've told people is we look
15 at the F-35 program and we had some developmental things
16 that we worked through, and we had challenges that General
17 Bogdan and his team have worked through with Lockheed Martin
18 and with everybody. Probably we have semi-annual meetings
19 with all the international partners, and it was about three
20 ago that the conversation wasn't about the development; the
21 conversation was predominantly focused on when we're going
22 to start deploying and how we're going to support down
23 range.

24 To me, that was a shift in the program that we are
25 moving forward. The platform has crossed a hurdle and we're

1 really getting to where we're looking to employ the asset.

2 Senator Sullivan: Good.

3 Mr. Chairman, I have a few more questions, but I'll
4 defer to whatever your role is here.

5 Senator Cotton: You can ask one.

6 Senator Sullivan: It will be a multi-part one
7 question.

8 [Laughter.]

9 Senator Cotton: Well played.

10 Senator Sullivan: Let me ask you, you talk about the
11 fifth gen and the Red Flag. One of the things I like to do
12 is take military members who aren't in the Air Force, other
13 senior leaders, and try to get some of my colleagues up to
14 Eielson to see the Red Flag Alaska exercises and J-Park.
15 And every time I go there, which is frequently, the
16 superlatives that are talked about with regard to the J-Park
17 training -- which I think the airspace is about the size of
18 Florida, so a little bit bigger than what we've got down in
19 the lower 48, actually a lot bigger, and we're expanding it
20 right now, as you know -- is that one of the issues that
21 keeps coming out is that you talked about readiness at the
22 outset of your testimony and the importance of ranges.

23 My understanding is that when you're talking about
24 fifth gen air-to-air training, because the standoff ranges
25 are increasingly much further with the fifth gen aircraft,

1 that the ranges need to be increasingly large, or the
2 airspace needs to be bigger. We have that at J-Park, which
3 I think I'd like your opinion on whether, as General Welch
4 said prior to his leaving, that that was the best range on
5 the Planet Earth.

6 But if you agree with that, what are the suggestions to
7 increase readiness? Although it is a remarkable place for
8 air-to-air combat, I'd ask the question that the last Red
9 Flag evolution they did they had close to 90 aircraft up
10 night fighting and getting refueled, and it was remarkable -
11 - not the notional aircraft, the real aircraft.

12 What are your suggestions that we need to do to improve
13 J-Park, and do you agree with oncoming fifth gen, that that
14 is not only the crown jewel of air-to-air training in the
15 U.S. military but it's going to be increasingly important as
16 we move to F-35s and F-22s?

17 And what do we do about the aggressor squadron? We had
18 a great aggressor squadron in Alaska. The F-16s are very
19 good. But at the fifth gen level, are we going to need to
20 bring in F-22s to be aggressors at a certain point?

21 So that's my multi-part question. And I'll also ask
22 about where are we on KC-46 spacing. There was NDAA
23 language last year that laid out particular principles that
24 the Congress wanted you to look at, and I just would like an
25 update on that.

1 That's one question, by the way.

2 [Laughter.]

3 General Nowland: Sir, I think you might get multiple
4 answers.

5 Senator Sullivan: Well, if the Chairman would allow
6 it, I think that would be great.

7 General Nowland: Senator Sullivan, as the director of
8 operations, I can tell you J-Park is critical towards the
9 future. Airspace and the range size that you talk about is
10 absolutely -- you're spot on, we need greater distances.
11 But our chief has just directed a new initiative that's
12 called Operational Training Infrastructure. We used to talk
13 about live, virtual, constructive, but what we have
14 determined, it's much bigger than just live, virtual,
15 constructive. It's the whole system that goes into it.

16 So part of the F-35 and F-22 fifth generation platforms
17 are so smart that threat replication becomes very, very
18 important, and you can't do it necessarily. You have to
19 have some very high-fidelity simulation. So in A-3,
20 director of operations, we are standing up a new division
21 with a general officer that will be looking at how --

22 Senator Sullivan: You put your pilots here and the
23 trainers if they get a kill?

24 [Laughter.]

25 General Nowland: We'll look at -- every day come to

1 work thinking about do we do training better and how do we
2 maximize our investments in training to include our Nellis
3 ranges, to include J-Park, our training infrastructure, how
4 do we man our aggressor squadrons, how do we train in our
5 aggressor squadrons, what is the future of our adversary air
6 squadrons, how do we get adversary air while not reducing
7 readiness of blue forces.

8 So your question is spot on. We are thinking every day
9 about it because we know that fifth generation training is
10 different than training of fourth generation.

11 Senator Sullivan: You can integrate the fifth gen
12 physical air-to-air with some of the notional. Isn't that
13 correct?

14 General Harris: Sir, we're working on that. That's
15 part of our upgrade that we're looking for follow-on. Right
16 now we're concentrating on combat capability for the F-35,
17 but we are working through several programs to bring that
18 training in because, as you're aware, the J-Park, I've been
19 lost in it as a former Blue Fox pilot back in the '90s. It
20 is a massive air space, yet these threats are partially
21 reliant on threat density and being able to put multiple
22 threats overlapping on top of each other. That's what we
23 meant to kick the door in with our fifth gen aircraft, and
24 we continue to work on that.

25 That's not easy to do. J-Park is a jewel. It's not a

1 backyard range that we have, but where we base our F-35s
2 with two squadrons at Eielson, in addition to what we've got
3 at Elmendorf with the F-22s, we need to continue to work on
4 that, but we have to balance it. Are we buying more threats
5 to train against versus combat capability in the aircraft
6 that we're trying to do? That's always a balance that we
7 work through on a daily basis.

8 Senator Sullivan: Thank you.

9 General Bunch: I love what they said. We're trying to
10 do this holistically to make sure we're on the right path to
11 inquire what we need to be able to support the live,
12 virtual, constructive and what we're trying to do for the
13 future. There's not only a range aspect of this, but
14 there's also a security aspect of this as to what you can do
15 virtually and what you can really do in the open air that we
16 have to balance as well, sir. And I, unfortunately, do not
17 have the KC-46 basing thing with me, so I'll have to take
18 that one for the record, sir. But I'll get you an answer
19 back.

20 Senator Sullivan: Okay. Great. Thank you.

21 Mr. Chairman, thank you.

22 Senator Cotton: Thank you.

23 General Nowland, I want to return to this question
24 about fighter pilot shortfalls. I'm not trying to sharp-
25 shoot the number. I'm just trying to get a handle on them.

1 Whatever they are, I think the upshot of those numbers is
2 not good.

3 Last year your predecessor, General Raymond, testified
4 the Air Force was short 511 fighter pilots. That was
5 expected to grow to 834 by 2022, in part because of the
6 higher than expected hiring by private airlines last year,
7 though you finished 2016 short over 700 pilots. I
8 understand that Congresswoman Wilson in her questions for
9 the record submitted for tomorrow's hearing has said they
10 will be short 800 fighter pilots, but you say it's 950
11 fighter pilots short today?

12 General Nowland: My numbers are total force. So it
13 depends on how you look at the numbers, but we'll make sure
14 we square with --

15 Senator Cotton: And that's total force fighter pilots.

16 General Harris: Nine-hundred-fifty total force fighter
17 pilots.

18 General Nowland: Total force fighter pilots.

19 General Harris: Active, Guard, and Reserve.

20 Senator Cotton: So might the discrepancy be counting
21 Guard and Reserve, along with active?

22 General Nowland: Quite possibly, sir, because our 55
23 fighter squadrons include our Guard and Reserve. They are
24 not in addition to that. And as we look at our
25 requirements, we stack nearly 50 squadrons on top of each

1 other to get through the defense planning guidance that we
2 have now for some of our larger conflicts, and that's when
3 we need 55 healthy and ready squadrons, then look at growth
4 to make sure that we can meet our needs.

5 Senator Cotton: Whatever the number is, and I'm
6 pleased to get it to us broken down along those dimensions,
7 would you agree with my first statement that the upshot
8 number is not good for the health of the Air Force and for
9 the security of our nation?

10 General Nowland: Mr. Chairman, absolutely. We can
11 show you that the number has gotten worse over time and is
12 increasing. Now, we are very hopeful, under retention, our
13 third line, that the extra money that Congress allocated to
14 us and the plan that we're coming back with, with a pilot
15 bonus, with a tiered system, a business model system that
16 allows us to give multiple options, will be part of the
17 solution. But it's not money alone that's going to keep
18 pilots in. It's also partially got to do with culture of
19 the squadrons and getting pilots back to their primary duty.

20 One of the primary irritants for pilots is additional
21 duties, and our chief has taken actions to eliminate
22 additional duties. We put five additional personnel into 24
23 fighter squadrons to help with the additional duties as we
24 look at --

25 Senator Cotton: Could you give the committee some

1 examples of additional duties?

2 General Nowland: Yes, sir. For example, we put people
3 in that will help them do the scheduling duty that requires
4 you to do that every day; help with reporting, reporting
5 functions, whether that be OPRs, ZPRs, administrative type
6 of work that needs to be done in a squadron. The things
7 that take a squadron, a fighter pilot away from flying,
8 being an officer -- remember, we're all officers first, so
9 professional officership comes first. But then replacing
10 those duties that detract him from not preparing for his
11 next sortie. So we're looking at areas such as that.

12 Senator Cotton: Okay. The committee last year
13 increased the cap for bonuses from \$25,000 to \$35,000. Do
14 you anticipate a request that you'll be increasing the cap
15 further?

16 General Harris: Sir, we would request that. We're
17 finding almost a one-to-one ratio. So with the \$35,000
18 bonus, that is an increase, and that's good. After two
19 decades, we have not changed it, but we're actually hoping
20 for higher. At \$50,000, we may get up to 50 percent
21 retention. So we will tier that based on where we have our
22 biggest needs, and right now that is in the fighter pilot
23 community.

24 Senator Cotton: At what phase in one's career would
25 one receive that bonus?

1 General Harris: At the end of your pilot training
2 commitment. So it is around that 11- to 12-year point, and
3 then the option is for five years or to keep you out to 20
4 years. We have several options to get at different
5 lifestyles to retain as many of the pilots as we can.

6 Senator Cotton: So perhaps a \$50,000 bonus for a five-
7 year commitment, or more?

8 General Nowland: Essentially, the RAND study said
9 \$48,000 a year. The problem is --

10 Senator Cotton: I'm sorry. Is it a year?

11 General Nowland: A RAND study said -- yes, sir -- a
12 \$48,000 bonus is what they were recommending, and that was
13 based on a number of 3,500. The problem is the airlines are
14 hiring more than that. In 2022, we have data that shows
15 that 58 percent of American Airlines pilots are going to be
16 eligible for retirement.

17 So as we look to the future, this problem is not going
18 away. That's why it's production, retention, requirements,
19 and then as we think about this as a national problem, if
20 you think it cost us \$11 million to create an F-22 pilot,
21 and you lose him at the peak of his proficiency, it's a loss
22 to the nation of a big investment.

23 Senator Cotton: My time is up on this round. I will
24 just say that our committee staff has traveled and conducted
25 sensing sessions with some pilots in Europe and in the

1 Middle East, and I think there's a strong non-monetary
2 component to it as well. One of those components is the
3 operational tempo. The Air Force has been heavily deployed
4 in those theaters now for 27 years. Obviously, there's a
5 self-reinforcing aspect to it as well as the pilot shortage
6 grows shorter and the up tempo becomes even greater. So I
7 think that's something that both the Air Force and this
8 committee needs to consider as well, as important as those
9 monetary bonuses are.

10 Senator Peters?

11 Senator Peters: Thank you, Mr. Chairman.

12 And I thank all three of you for being here. I
13 appreciate your testimony here today.

14 My question centers around the A-10 aircraft. In
15 Michigan, our Air National Guard flies A-10s and has been
16 doing that very successfully, but we are also now on the
17 short list of five potential sites for deployment for the F-
18 35, which we hope will have a successful outcome as that
19 process moves forward.

20 But if you could talk a little bit about how you see
21 this transition as we move away from A-10s, what will be
22 some of the sequencing and timelines for that, as well as
23 new F-35 squadrons coming in, perhaps taking some of these
24 positions. How do you see that unfolding?

25 General Harris: Senator Peters, that's a great

1 question. First off, what I'd like to say is we are living
2 with the NDAA requirements right now on the A-10s, and we
3 are waiting for the comparison testing to be complete before
4 we make decisions on the final outcome. But at this time we
5 are not asking for additional upgrades with the A-10. It is
6 an awesome airplane, and I would venture to say it is the
7 best CASS airplane that we have.

8 But where I think we have not done well in telling our
9 story with the F-35 is that as it moves in, as we are
10 holding at 55 squadrons, things have to fall off the bottom,
11 and it's going to be our older fighters that we have not
12 upgraded. A-10s may be some of that, F-16s, F-15s. We're
13 buying roughly two squadrons a year. When we look at the 60
14 range that we're aiming for, by the time we put some in
15 training, some in test, and continue to grow the efforts
16 that we need. So that's the pace that we're looking at, and
17 we are working a few years ahead because of the MILCON
18 required to support the F-35 and the capabilities that it
19 brings to any fight. A lot of that involves the higher
20 classification and the security requirements on ramps, those
21 types of things that we have to upgrade.

22 Senator Peters: Right. Thank you.

23 Your testimony also mentions the space domain and that
24 we need reliable access to space, including jam-resistant
25 position navigation and timing. My understanding is that

1 our adversaries have been investing a great deal in their
2 space capability, something that we have to be concerned
3 about.

4 What do you believe are the most important investments
5 that we need to make now in space to support those vital
6 missions? What should we be doing here in Congress to help
7 you achieve that important mission?

8 General Bunch: Sir, I think we've outlined in our
9 budgets that we put in, we put those in the highest
10 priority. I believe we're giving you what we believe we
11 need for the future. I will tell you right now, we're very
12 focused on developing the new launch capability to get us
13 off the RD-180 and to move the pads so that we can have two
14 domestically produced, commercially viable providers of
15 launch services to meet all of our NSS requirements. So
16 those programs, we've been doing other transaction authority
17 investments with public-private partnerships with industry
18 for the last few years that we're trying to expand out now
19 to go to launch service agreements.

20 Also, we need to keep -- and I'm pointing to myself --
21 the OCX program on track because we need that to have a
22 stronger encrypted M-code GPS signal for what we're going to
23 do for those activities.

24 The last thing that our chief is very focused on, and
25 I'm not going into a whole lot more details about specific

1 programs, is we need to normalize how we're doing our space
2 business. We need to treat it like an operational domain.
3 We need to treat it like the air domain. We need to set the
4 requirements. We need to make sure we've got con ops for
5 how we would operate and do things. We have to do all those
6 things beforehand. We need to streamline the acquisition.
7 That's in my swim lane. We need to partner better with the
8 NRO. We need to make sure we're moving out and using the
9 operationally responsive space authorities that we have. We
10 need to look at doing RCO-like activities in the space
11 domain, which is another area that we're focused on right
12 now.

13 So we have a big focus in the space area to be more
14 responsive to what we're trying to do because we know that's
15 a critical domain and a critical area that we do our
16 business in.

17 Senator Peters: Thank you.

18 Senator Cotton: Senator Warren?

19 Senator Warren: Thank you, Mr. Chairman.

20 General Harris, last week the House Armed Services
21 Committee held a hearing on Air Force readiness, and during
22 that hearing your colleague, Major General West, seemed to
23 indicate that the Air Force might be prepared to retire the
24 F-15C and D in the next year or two. Is that right? Does
25 the Air Force propose retiring the F-15? And how is the Air

1 Force going to replace that capability?

2 General Harris: Ma'am, thank you. It's an opportunity
3 for us to tell the story. That's pre-decisional. We have
4 not decided, and throughout we continue to deploy the F-
5 15C/D fleet. It's an air superiority fighter for us with
6 somewhat limited capabilities from a fourth gen perspective
7 compared to an F-22, but we are not replacing it at this
8 time. It is something that we're looking at as we continue
9 to bring in more fifth gen capability, what assets do we
10 push out at the bottom of that chain.

11 Senator Warren: All right. So let me ask you, then,
12 if it's pre-decisional, has the Air Force done the analysis
13 to demonstrate that purchasing new F-16s instead of
14 servicing the F-15s will provide the same level of
15 capabilities and actually save the taxpayer money?

16 General Harris: We are doing that analysis. I don't
17 know how that is going to turn out from a cost perspective,
18 but I think it's going to be fairly balanced. So I look
19 forward to providing that when we get that information
20 completed.

21 Senator Warren: And I'll take it you'll get that
22 resolved before you make any decisions?

23 General Harris: We will, and certainly that's part of
24 it, but we also have to look at the operational capabilities
25 and what a fifth gen fighter, although it is a multi-role

1 fighter in the F-35, brings to this fight as a family of
2 systems. It far out-classes anything in our fourth gen.

3 Senator Warren: I understand that, and actually I've
4 got some questions about that. But what I really want to
5 focus on is what we're doing in the next year or two, at a
6 time when we're hearing about readiness difficulties with
7 the Air Force.

8 I also want to ask, you know that more than 60 percent
9 of our F-15s belong to the Air National Guard. So what I'd
10 like to have here today is your commitment that the Air
11 Force will consult with the Air Guard and specifically with
12 the Adjutants General in states with the Air Guard F-15
13 wings before any decisions are made.

14 General Harris: Ma'am, they're part of my team on the
15 plan process. So they're involved with us every day. At
16 that testimony, seated next to General West was General
17 Rice, the Air National Guard commander. So they're involved
18 with --

19 Senator Warren: I know General Rice well. Good.

20 General Harris: -- and we'll continue to work with
21 them.

22 Senator Warren: All right. I just want to make sure
23 we're going to do that.

24 Given its cost, I realize that we may not be able to
25 procure the F-35 in the numbers the Air Force has planned

1 until 2045. So I'm also not convinced that the F-16 is
2 fully capable of replacing the F-15 in meeting the air-to-
3 air mission. So I just want to raise the point, because it
4 seems to me that retiring hundreds of aircraft at a time
5 when the Air Force is in need of additional capability may
6 not make a lot of sense here, and I just want to make sure
7 you're looking very carefully at the proposal. I know we'll
8 have questions as this emerges.

9 General Harris: Yes, ma'am, we're looking at that, and
10 what our chief is trying to drive to is to maintain us at 55
11 fighter squadrons, including our Guard and Reserve in that
12 number, and making them healthy with what we have.

13 Senator Warren: Okay. I also want to, if I can get it
14 in quickly here, I want to ask you about the nuclear command
15 and control network, the NC3 system that connects our
16 President to our field forces in case of emergency. As you
17 know, the system is absolutely essential to provide early
18 warning, to communicate critical information in a nuclear
19 crisis. If NC3 doesn't work, the rest of our nuclear triad
20 becomes essentially useless here.

21 The current NC3 system is old. General Hyten recently
22 said that NC3 was his highest priority for nuclear
23 recapitalization, and he said, and I'm going to quote him
24 here, "Any delay, deferment, or cancellation of NC3
25 modernization will create a capability gap potentially

1 degrading the President's ability to respond appropriately
2 to a strategic threat."

3 So I just want to ask, General Bunch, is NC3 the
4 highest priority for the Air Force as well?

5 General Bunch: Ma'am, we have multiple priorities.

6 Senator Warren: I know.

7 General Bunch: NC3 is a priority that we have within
8 the Air Force. We named Air Force Global Strike Command and
9 General Rand as the lead for the NC3 effort. So we named a
10 four-star and a MAGCOM as the lead. We aligned NC3 efforts
11 under a program executive officer up at Hanscom right now,
12 and we designated someone. We did not have that before.
13 He's designated to look over all those programs. We've
14 aligned that into the nuclear weapons center, which we've
15 stood up now and we've restructured so that it's really only
16 focused on the sustainment and the modernization of our
17 nuclear inventory.

18 So we, the Air Force, have made a big commitment to
19 prioritizing that. I will not tell you that we have it 100
20 percent straight today. I will tell you that there are a
21 lot of small efforts that are in a lot of different POs that
22 don't have a whole lot of manpower. Our team met with the
23 A-10 and pulled in all the program executive officers who
24 have those assets, and pulled in the Global Strike Command
25 and other expertise to get us on a path to make sure that we

1 are focused on that and delivering those capabilities which
2 are so critical to our ability to keep the nuclear deterrent
3 viable.

4 Senator Warren: Good. I appreciate that.

5 I have additional questions, but I'll just ask them in
6 a QFR. I just want to say I think this is an absolutely
7 critical program, and it's important for us to keep an eye
8 on it. So, thank you, General.

9 General Bunch: Yes, ma'am.

10 Senator Warren: Thank you.

11 Senator Cotton: Senator Blumenthal?

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

13 I have a couple of simple numbers questions which you
14 may have answered; I apologize if you have, but I would like
15 to hear the answers.

16 What is the ideal procurement number for Fiscal Year
17 2018 on the F-35 for you? What do you want on the F-35 for
18 Fiscal Year 2018?

19 General Bunch: Sir, I'd like to get to 60 F-35A models
20 for the U.S. Air Force.

21 Senator Blumenthal: Okay. And I think there's been
22 some testimony about the number of -- and by the way, I'm
23 not a business guy, and I'm not a military professional, but
24 common sense tells me if you order enough of them, the price
25 comes down with scale, and I've heard that from the company.

1 So if you confirm it, I'll believe it's true.

2 General Bunch: Sir, what we've asked and what I've
3 given in our dialogues and the message I've carried from our
4 chief is we want to go to 60. We need to see the price
5 continue to come down on the curve so that we can continue
6 to procure those, and we need the operations and sustainment
7 effort that we need so that we can operate and maintain
8 those the same way. So that is what General Bogdan -- I
9 apologize, sir, for interrupting you. That is what General
10 Bogdan's team is working. They understand where we want to
11 go, and I'm comfortable that as we've gone through the buys
12 over the years we are moshing down the curve and we are
13 coming down to a lower rate, and that's where we want
14 Lockheed Martin to stay.

15 Senator Blumenthal: And Lockheed Martin and Pratt and
16 all the contractors involved have begun a war on costs. In
17 fact, they began it some time ago, maybe years ago, and they
18 have continued that war to drive down costs, but scale is
19 very important to that effort.

20 General Bunch: It is, sir.

21 Senator Blumenthal: Thank you.

22 Could you tell me -- I know there's been some talk
23 about the number, the shortages of pilots -- how many are
24 you down from the number that you need? I've heard
25 different numbers -- 800, 900. Maybe it's --

1 General Nowland: Senator Blumenthal, the number
2 changes every day. But as of today, we are 1,555 total
3 force pilots short of our requirements.

4 Senator Blumenthal: Fifteen hundred and fifty-five.

5 General Nowland: Yes, sir, 1,555.

6 Senator Blumenthal: And what is the number from which
7 you are short?

8 General Nowland: Sir, our total number of pilots is
9 approximately 20,300. That's approximately what our total
10 requirements are for pilots.

11 And I'm sorry, Chairman Cotton, I gave you 1,550
12 because I didn't have my glasses on. I apologize.

13 Senator Blumenthal: And of those 1,555 -- again, I
14 apologize, because my terminology probably won't be as
15 exact, as official as it should be. What number of those
16 are fighter pilots?

17 General Nowland: Sir, we are 950 fighter pilots short
18 today.

19 Senator Blumenthal: That would square with what I've
20 heard. And out of what number is that?

21 General Nowland: Sir, I'll get you the exact number.
22 I don't want to give you a wrong number. I've got it right
23 down here, but I don't have total number of fighter pilots
24 broken out. I have it broken out by the services, so I can
25 get it to you.

1 Senator Blumenthal: If you could, I would appreciate
2 it.

3 General Nowland: Yes, sir.

4 Senator Blumenthal: And again, I don't mean to make
5 too much of this numbers stuff, but one theory that has been
6 advanced to me about how to keep and maybe even attract more
7 skilled pilots is this idea of readiness, giving them time,
8 basically time to train, because they need, so it's been
9 described to me, time in the air to be proficient. And if
10 they don't get that time, they feel they're not proficient,
11 and it's a real deterrent to stay in the Air Force. So it
12 makes the offers they may receive from the private world all
13 the more attractive.

14 So readiness is a key to keeping and attracting skilled
15 pilots. Is that over-simplistic, or is it relevant?

16 General Nowland: Senator Blumenthal, no, you are
17 exactly right. It's a combination, a series of things.
18 Chairman Cotton already mentioned it also, personnel tempo.
19 Deploying down-range is one thing, but then when you come
20 home, flying and then being home -- I have a story of an F-
21 22 pilot, a major who was in Alaska, sir. He had been there
22 for seven years. He went to weapons school. He was at the
23 peak of his game. He came home one day and his wife put her
24 hand on his shoulder and said, honey, I love you, but you've
25 got to get out of the Air Force. And he said why? Because

1 in the last five years you've been home 10 months.

2 So that's an extreme case. Now, the good news is he
3 went to the Reserves and he's still serving with the Air
4 Force. But personnel tempo is part of it. When you're a
5 very small Air Force and you're a very small F-22 fleet,
6 you're constantly in demand. So we're looking at how we get
7 personnel tempo under control.

8 There's deployment to dwell, but there's also personnel
9 tempo. Building white space is super important.

10 General Harris: May I add to that also?

11 Senator Blumenthal: Yes, absolutely. Thank you. With
12 the Chair's permission.

13 General Harris: Sir, you're exactly right. Quality of
14 life is a part of this. The pilots came in, they intended
15 to fly and they like to fly. So one of the chief's number-
16 one items is to fix our squadrons and right-sizing them. So
17 we are putting administrative support back into the
18 squadrons. Over the last two decades as we've been getting
19 smaller, we've been cutting as much of the tail as we can,
20 and we realize we did too much. The flying squadrons are so
21 small, they had no support.

22 So after a full day of flying or an exercise that they
23 were deployed to, they had to come home and do a significant
24 amount of paperwork that could be done by many people, not
25 just the flyers. So we're looking at a lot of those tasks,

1 if you want to call them additional duties, whether it's
2 keeping the areas that we work in that are highly classified
3 open and having somebody to do that, rather than requiring
4 an aviator to do that, we're getting at a lot of those
5 tasks.

6 So the quality of life will continue to rise. So as we
7 get them home, that 10-month/5-year vignette, that's just
8 not all combat operations. It's a significant portion of
9 that, but it's all the other training they're doing off-
10 station that we're trying to free up back at home.

11 Senator Blumenthal: And if I could ask just one more
12 question, please? In terms of continuing proficiency, the
13 administrative duties, personnel tempo, when someone comes
14 home they want to stay proficient, ready, are they getting
15 enough time actually in the air flying?

16 General Nowland: Sir, it varies by weapon system. But
17 the answer is we are working to increase weapon system
18 sustainment. This is where our maintainers come in. We
19 have a minimum number of sorties per month that we need to
20 fly pilots to consider them mission ready, and we are
21 driving our maintenance to try to increase our utilization
22 rate so we can fly pilots more, because that minimum number
23 should be the floor, not the ceiling. We want to be above
24 that number to increase our readiness, and we are driving
25 towards a utilization rate, with additional maintainers and

1 more weapons systems sustainment funding, which we've done.
2 We're moving in that direction. The trends are going in the
3 right direction, but we're not where we want to be right
4 now.

5 Senator Blumenthal: Thank you. Thank you all very,
6 very much for your service and for being so forthcoming
7 today.

8 And thanks to the Chair.

9 Senator Cotton: Senator King?

10 Senator King: Thank you, Mr. Chairman.

11 We've talked a lot about retention. I'd just note,
12 General, you made the point that whatever the bonus is, it's
13 a lot less than \$11 million, which is the cheapest training,
14 the training you don't have to do because you've got
15 somebody who is already trained. So I think that's got to
16 be part of our calculus as we talk about this.

17 Again, talking a bit about the shortage, I understand
18 that there is an excess of pilots on the mobility side, and
19 I was wondering if there was any effort or plans or thought
20 being given to shifting pilots from mobility over to where
21 you are facing the shortages.

22 General Nowland: Senator King, that's a great
23 question. The mobility excess pilots we have moved into our
24 training architecture. So as we looked at our overall
25 operational training infrastructure, it also deals with

1 manning our T-38s, T-6 squadrons, and UPT. And as we became
2 shorter on fighter pilots, we took fighter pilots out of the
3 training infrastructure and moved them into unique fighter
4 pilot jobs. So mobility pilots have moved into that
5 training function.

6 We have a very small number, but we have moved some
7 mobility pilots who went through T-38s into a fighter
8 cockpit. But that's a very small number because a
9 specialized UPT, the vast majority of our pilots who have
10 gone through T-1 training go into the mobility world, and
11 they've not formed T-38s.

12 Senator King: Are bonuses being paid to mobility
13 pilots even though there's an excess?

14 General Nowland: Well, there's not really -- it
15 depends on what you mean by excess. We're still short of
16 our overall pilot numbers, and we're still taking risk in
17 our training infrastructure, and the mobility pilots are
18 also going to be short like fighter pilots here. Air
19 Mobility Command tells us by 2020 we will start to lose
20 them.

21 Our pilot retention, our pilot numbers are based upon a
22 65 percent take rate. Unfortunately, our mobility pilots
23 are not at that rate. They're below 65 percent. But we've
24 been living off of over-producing mobility pilots in years
25 7, 8, 9, 10.

1 Senator King: You had an excess but the excess is
2 being worked down, is what you're saying.

3 General Nowland: We are using all of our pilots to the
4 maximum extent capability. It's just we filled our mobility
5 pilots; they're filling other functions. So I think we're
6 saying the same thing. Over time, our mobility excess that
7 is allowing us to do our training function will degrade and
8 will be gone, and then we'll have to figure out how we're
9 going to fill our training cockpits.

10 Senator King: Let me talk about a related, not the
11 same but a related issue, and that's UAV pilots. My
12 understanding is that we're now in a world of using enlisted
13 personnel as UAV pilots, at least with the Global Hawk.
14 What about Predators and Reapers? How is that working?
15 Have you found any diminution of quality using enlisted
16 people in these slots? Because we were stressing out the
17 regular pilots, as I understand it. Has that change been
18 implemented, and to what extent has it been successful?

19 General Nowland: Senator King, this is a fabulous
20 question. I love this question. Our RPA pilots, we are
21 moving enlisted pilots into our RQ4 community, because what
22 we found is that in our RQ4 community it's very similar to
23 what we did in space, the way we're operating. They have
24 not arrived there yet, sir. They're going through the
25 training pipeline right now. So our first batch is going

1 through the pipeline. We now have the next batch. We just
2 had our second batch of enlisted pilots who have been
3 selected and now are starting down the track to be enlisted
4 RPA pilots.

5 Our MQ1s and MQ9s -- our MQ1 fleet we're going to
6 retire. Our MQ9 is going to be essentially our new
7 platform. We don't have the enlisted aviators in MQ9s right
8 now, sir.

9 Senator King: What's the MQ9?

10 General Nowland: The MQ9, it is the Reaper.

11 Senator King: That's the Reaper, okay.

12 General Nowland: Yes, sir. We have the Predator,
13 which is the MQ1, which we are eliminating, and the MQ9, the
14 Reaper.

15 Senator King: So you have no enlisted people in the
16 Reaper program. Are you planning to move in that direction?

17 General Nowland: We have enlisted people in the Reaper
18 program, sir. They're just not pilots. We have a pilot, we
19 have a sensor operator, and they are a team, and they work
20 side by side.

21 Senator King: Will you have enlisted pilots in the
22 Reaper program?

23 General Nowland: At this time, Senator, what we're
24 doing is we are looking and evaluating. As we go down this
25 road, we're going to evaluate all options in the future.

1 But the first thing is we need to get our enlisted aviators
2 into the RQ4 and see how they go.

3 Right now, our training pipeline is pretty much set.
4 This year we're going to train over 300 RPA operators.
5 Whether they're an officer or enlisted, you still have to
6 train 300 RPA pilots. So there really is no advantage one
7 way or the other right now. We've got time to make this
8 decision down the road, sir.

9 Senator King: I commend -- again, we've got to think
10 very creatively about how we fill this shortfall, and if the
11 enlisted people can do this job effectively, that's another
12 resource that at least being able to reallocate trained
13 fighter pilots into fighters.

14 The B-21, are the requirements for the B-21 locked
15 down, no more good ideas?

16 General Bunch: Yes, sir. We locked the requirements
17 down before we went into -- General Welch did. Before
18 General Welch, we continue to keep them under General
19 Goldfein. General Goldfein has made it crystal clear to the
20 two of us that he is the chief requirements officer for the
21 Air Force, and if we want to change anything in those
22 requirements, particularly in the KPP, key performance
23 parameter, he needs to know about it and he needs to approve
24 it.

25 Our intent all along has been to keep those locked down

1 so that we would not increase costs. We could control. One
2 of the things that I talk about, I believe one of the key
3 things we did on the program was we put cost as a key
4 performance parameter for what we wanted, and I viewed that
5 as serving as an appetite suppressant. It caused everyone
6 not to try to add additional things. It caused everybody to
7 use what we had, and we built it in a way that we can
8 increase its capability over time because of the open
9 modular system that we designed as the backbone for the
10 platform.

11 Senator King: And as you know, we have an interesting
12 contract, which I think is a creative solution to the risk
13 problem of 70 percent fixed, 30 percent cost plus. But that
14 30 percent could explode if we start redesigning the
15 platform in the middle of the construction process.

16 General Bunch: It's been a key factor for us, sir,
17 that we're looking at. There are a couple of things we
18 didn't want to get into the B-2. We rewrote the
19 requirements after we awarded the contract and we redesigned
20 the platform. We don't want to go there. That's why
21 holding the requirements so stable is so critical to us.

22 Senator King: I like hearing you say we don't want to
23 go there. I'd rather have you say we will not go.

24 General Bunch: No. I apologize, sir. We're not going
25 there.

1 Senator King: Thank you.

2 General Bunch: We're not going there.

3 Senator King: Mr. Chairman, thank you.

4 Senator Cotton: I want to return to Senator King's
5 questions about RPAs, and I want to ascend above the
6 enlisted question for a moment. We'll return to that,
7 though.

8 Last year, Secretary James recommended an RPA get well
9 plan that included over 140 specific actions. General
10 Nowland, how many of those actions have been completed, and
11 when will they all be completed?

12 General Nowland: We call that the cultural process
13 improvement program. The exact numbers, I'll have to
14 consult or get back to you; I don't know. The most
15 important part of it, though, was the deployment to dwell
16 and the crew ratios, Mr. Chairman, and we've reached over a
17 10.1 crew ratio. We've had a series of initiatives.

18 In my previous job I was the 12th Air Force Commander,
19 so I was intimately familiar with this. We've had a series
20 of initiatives to try to normalize what we call life at
21 Creech Air Force Base in Northwest Las Vegas, and those
22 initiatives have gone through. The morale at Creech is good
23 because we now have the crew ratios where we are driving to
24 what we call a deploy to dwell, so that the pilots will
25 actually have time to come out of combat sorties and go into

1 training sorties. This is so important for us, because we
2 are learning that our MQ9s are force multipliers.

3 One vignette. On the most sophisticated sortie we do
4 at the weapons school, which is weapon school integration,
5 they always have an exercise where they have personnel
6 recovery of a downed airman. The RPA, the MQ9 crew, when it
7 operates in that role, is a perfect, perfect example of how
8 you integrate all the information in and then get it to
9 Sandy-1, who is the A-10 that is doing the actual job of
10 rescuing the pilot, because they can have situational
11 awareness, coordinate all activities.

12 So we're learning that there's multiple functions for
13 these weapons systems as we move forward. The exact number,
14 sir, on CPIP, I will get back to you, but we are progressing
15 in a very good fashion.

16 Senator Cotton: General Harris, did you have an answer
17 to that question?

18 General Harris: Not to the number. We closed out on
19 the 140, but we are more than halfway through that program.
20 Last time I left the dance at Air Combat Command, we were
21 executing that, so we will get back to you on that.

22 Senator Cotton: That's fine. Just please get it to us
23 for the record.

24 How are we doing on pilot production for the MQ1 and
25 MQ9 as a whole, putting aside the question of the division

1 of labor, or the potential division of labor between officer
2 and enlisted?

3 General Nowland: Yes, sir. For Fiscal Year 2016, MQ1
4 and MQ9, we produced 252. We forecasted 271. So we were a
5 little short of what we wanted to do. But we also did
6 foreign military sales with 35, and we hit all 35 of those
7 pilots as we moved forward.

8 The 271, the reason we were a little short had to do
9 with a little bit of weather. It also had to do with some
10 maintenance and student proficiency, and that's pretty
11 normal as you're going through to meet your productions. As
12 we forecast to the future, in 2017, we're expecting to
13 produce 346 MQ1 and MQ9, although we have closed our MQ1 RTU
14 now. We are moving exclusively to MQ9.

15 Senator Cotton: Three-hundred and forty-six you said?

16 General Nowland: Yes, Mr. Chairman.

17 Senator Cotton: Does that meet the standard we need
18 for a healthy force in the RPA community?

19 General Nowland: Yes, Mr. Chairman. We've got a very
20 good number now on where we're moving forward. We are
21 driving to a 14-to-1 crew ratio, which will really enable us
22 to start training, and that's part of the CPIP. We also are
23 looking forward to opening another wing at Shaw Air Force
24 Base as we grow the capability. So that will enable us to
25 do the transition as we move over and manage our force.

1 Senator Cotton: Two years ago in the NDAA, the
2 committee authorized bonuses of up to \$35,000 for these
3 pilots. My understanding is that the bonus was at \$25,000
4 for some time, but it recently may have gone to \$35,000. Is
5 that correct?

6 General Harris: Yes, it has. We expect to start
7 paying that out this year. It's the initial air crew that
8 are now coming up being bonus eligible. So to this point it
9 hasn't mattered. They're still on that first commitment
10 that they haven't been eligible for it. We expect it to
11 help.

12 But, Mr. Chairman, I'd like to explain. We will look
13 at how these people are being retained, because some of the
14 contractors that we're currently competing with are paying
15 upwards of \$40,000 a month for these RP operators to come
16 off of active duty and to go fly other missions associated
17 with what they're doing. So again, we will never, even with
18 our RPA team, compete with the prices that are available on
19 the commercial market, but getting back to that quality of
20 life, opening a new base at Shaw, the mission
21 accomplishment, the sense of being a part of the team is
22 everything that we're putting into the CPIP program to
23 retain these fantastic aviators.

24 Senator Cotton: Finally, to return to Senator King's
25 specific question about enlisted personnel and tie a bow on

1 it exactly, in the Fiscal Year 2017 NDAA we directed Air
2 Force to transition a significant number of those pilots to
3 enlisted personnel by Fiscal Year 2020, and to Guard and
4 Reserve by Fiscal Year 2023. Will you complete that
5 transition and compliance with the Fiscal Year 2017 NDAA?

6 General Harris: Yes, sir. We are on track to meet
7 that. That was specific to the Global Hawk, the RQ4, and we
8 think we are on track at this time. So the first students,
9 as you heard, are graduating this year and will start
10 rolling through the mission. We will continue in that
11 process, and as we learn more about how the enlisted team
12 are doing in this, we will then take that information and
13 consider do we move that into the next RPA platform, maybe
14 an MQ9.

15 But again, they're employed differently, so that is a
16 value judgment we'll have to look at as we understand how
17 well these airmen are doing, and right now in the training
18 they're doing outstanding.

19 Senator Cotton: So you take it as an open question at
20 this point whether we should have enlisted personnel in the
21 future acting as pilots for MQ9s, to be considered in the
22 future based in light of the evidence we'll acquire during
23 the transition for the Global Hawk?

24 General Harris: Yes, sir.

25 Senator Cotton: Thank you.

1 Senator King?

2 Senator King: Just one follow-up on the B-21.
3 Whatever we build will be obsolete the day it comes off the
4 line, and therefore I hope that the design takes that into
5 account and will allow modular replacement upgrades,
6 software, in some cases hardware, so that the platform
7 itself can be maintained but that its capabilities can be
8 modernized as technology develops. Is that the design
9 concept, General?

10 General Bunch: Sir, that was a fundamental design
11 concept. We went with the open mission systems architecture
12 for the software so that everything would have an interface
13 and we could advance technology as it evolved or we could
14 make changes as adversaries evolved. We also designed the
15 aircraft with additional power, electrical air conditioning
16 in space in key areas that we may need to utilize so that we
17 can grow the platform for the future.

18 Senator King: So if you have to add one cable, there's
19 a place for it.

20 General Bunch: If we need to add something, sir, we've
21 got areas that we can do that. If we need to change out a
22 component, if it ties into the open system architecture, we
23 can do that. We can do it and keep competition in the
24 platform for the life of the platform, and we can do it in a
25 more efficient manner because we won't have to test as much,

1 and I personally believe it will increase our cyber security
2 as we go through that process.

3 Senator King: Excellent. I hope that you'll keep in
4 touch with the committee on that project as it moves
5 forward. I think it's one of the most important that we
6 have, that the Air Force and the government is undertaking,
7 and I hope we can have a continuing dialogue on that.

8 General Bunch: Sir, we welcome that. We are committed
9 to complete transparency with the appropriately cleared
10 individuals on all the defense committees. We have been
11 working with the defense committees for four years before we
12 awarded the contract so that everyone knew what we were
13 trying to do, and we're balancing all other transmissions to
14 the public and what we can communicate against the security
15 and the risks involved so that we can be as transparent as
16 possible with the American public as well.

17 Senator King: But you feel at this point the contract
18 and the development is on track?

19 General Bunch: Sir, I get monthly updates. We've done
20 our initial baseline review. We've completed the
21 preliminary design review. We're going into detailed design
22 review. The contractor is hiring people at the appropriate
23 level to get the work done, and we're tracking what they're
24 doing. Everything right now indicates to me that we haven't
25 slipped anything.

1 Senator King: Gentlemen, thank you very much for your
2 testimony. It's been very illuminating, and we look forward
3 to working with you.

4 Thank you, Mr. Chairman.

5 Senator Cotton: Let me ask maybe a broader
6 philosophical question about the B-21, but also especially
7 what we've learned over the last 25 years.

8 General Bunch, do you think, from a development
9 perspective, it's best to develop prototypes and have a fly-
10 before-you-buy methodology for large and complex systems
11 like these aircraft?

12 General Bunch: It depends, in my experience, on how
13 you set up the prototype project to go. I believe the best
14 thing we can do, and I think the B-21 is an example of this,
15 whether you build an exact prototype, I think a robust tech
16 maturation and risk reduction phase is critical. If you
17 recall, in that program we invested in the B-21 program with
18 multiple contractors for quite a few years before we awarded
19 a contract so that they could develop the technologies,
20 mature those technologies. We were more informed buyers,
21 and we had everything almost up to the preliminary design
22 review before we awarded the contract. That cost us money
23 up-front to be able to do it, but it also made the
24 technology much more mature and made it much better for us
25 to do.

1 There are areas, though, that we can prototype and we
2 can go procure straight out of that. That's an area we're
3 trying to do with some of our experimentation campaigns to
4 see what the art of the possible is there, and the Congress
5 has been very willing to give us rapid prototyping and rapid
6 filling authorities that we will employ in those
7 opportunities where that arises.

8 Senator Cotton: Developmental planning experimentation
9 prototyping used to be resident in the Air Force's systems
10 command, which was disbanded 25 years ago. Since then we've
11 had struggles with programs like the B-2, the F-22, the C-
12 17, the F-35. Do you think it's a coincidence that that
13 command was disbanded and we've had these struggles since
14 then, or is it a cause?

15 General Bunch: Sir, I wouldn't tie it directly to the
16 way that we reorganized to go to Air Force materiel command
17 from systems command or logistics command. What I will say,
18 we the Air Force, we let that developmental planning skill
19 atrophy. That's something that our chief, General Welch,
20 and Secretary James viewed as something we needed to get
21 refocused on, and they believe we need to do more
22 experimentation and more of that type of prototyping
23 activity to see what technology can do so that we can
24 respond more rapidly.

25 I believe they made a real strong commitment to that

1 when they started budgeting \$100 million a year into the
2 budget so that we could have it for experimentation and for
3 developmental planning. They stood up an office that's in
4 Air Force materiel command that leads those efforts for us.

5 So I believe our stepping away and letting that atrophy
6 as we looked at capabilities and technology hurt us more
7 than a reorg. We're refocused on that, and we're invested
8 in those areas to see what technology can do so that we make
9 wise investments.

10 Senator Cotton: So an atrophy of skill sets more so
11 than a reorganization?

12 General Bunch: That is my view, sir. I believe it was
13 an atrophy of skill sets and a loss of, a lack of importance
14 placed on that as we moved forward, and we needed to refocus
15 on those efforts.

16 Senator Cotton: Thank you.

17 General Nowland, I want to speak about force structure,
18 capacity. I mentioned in my opening statement General
19 Hoog's remarks from 2014 about Air Force capacity. In
20 response to this situation, in the NDAA a couple of years
21 ago we directed the Air Force maintain a minimum inventory
22 of 1,900 total fighter aircraft and 1,100 combat coded
23 fighters. Do those numbers enable the Air Force to meet
24 combatant commanders' demands and execute our national
25 defense strategy today?

1 General Nowland: Mr. Chairman, that's a fantastic
2 question. If you were to think about our 55 fighter
3 squadrons, the seven years of declining budgets have caused
4 cracks within those. So we are working on our chief's
5 number-one priority of strengthening the squadrons. By
6 strengthening the squadrons, we see fantastic results. I
7 just returned from Jordan, where we have an F-15E squadron
8 that is doing fantastic work. It's about to drop its
9 5,000th bomb in the war against Isis, because it has all its
10 manning and it has the weapon system support.

11 So when we strengthen all of them, and if we could
12 strengthen all of our squadrons to be at the maximum
13 capacity, we can absolutely execute the national defense
14 strategy, but we would be very tight if you think about the
15 changes that have happened with our adversary. That's why
16 the Air Force would like to grow to 60 fighter squadrons,
17 and we would also like to build some attack squadrons in the
18 future.

19 But in the end, Mr. Chairman, we can execute the
20 strategy. But to be perfectly honest, it will be great
21 airmen that will make it happen, and we'll do it on the back
22 of our airmen.

23 Senator Cotton: So Congress did so with an intent to
24 stem further divestment in combat air power, and sometimes
25 Congress can act as a blunt instrument, not a fine scalpel.

1 So given that intent, can you tell us what the Air Force's
2 actual requirement today is for total fighter aircraft and
3 for total combat coded aircraft?

4 General Harris, you look like you'd like to answer.

5 General Harris: I would. As part of the requirements,
6 sir, one of the things we're looking at is we think the
7 1,900 number is a bare minimum at the floor. We think it's
8 probably closer to 2,100, a little above that for our
9 fighter aircraft so that we can maintain probably 60
10 squadrons. We don't want to grow to 60 now and still have a
11 broken force or a force that is not as ready as it can be.
12 We want to fix the 55 we have. We are not planning to go
13 below the 1,900. We are struggling with the way the budget
14 is rolling out to us to maintain that in the long term, but
15 we do understand the task of the NDAA. We do not intend to
16 go below the 1,900. We will keep our 55 squadrons. We will
17 grow them healthy if we are able to get a stable,
18 predictable budget that comes to us and continue to improve
19 along that line.

20 General Bunch: It's a complicated answer.

21 Senator Cotton: A simple question, complicated answer
22 maybe?

23 General Bunch: Fifty-five fighter squadrons. We would
24 like to have 24 aircraft per squadron, and that's probably
25 our most efficient use of those airplanes. Fifty-five times

1 24 is not 1,900. It is slightly above that number. Where
2 we believe we have some of that change is some of our
3 aircraft, our squadrons are manned at 18 airplanes per
4 squadron. So that's what drives some of these changes --

5 Senator Cotton: Is that a concession to budgetary
6 necessity?

7 General Bunch: It really is. If we were
8 unconstrained, we would have every squadron with 24 combat
9 coded airplanes, plus a couple of backup or BAI spares,
10 which is common in each one of these units, so if you lose
11 an airplane you have it available already maintained and
12 ready to go, employed on a daily basis.

13 Senator Cotton: Okay. General Bunch, I need to ask
14 about the UH1 November helicopter replacement program.
15 There's a little bit of history here. Last year you
16 submitted an out-of-cycle request to Chairman McCain for
17 authorization to use provisions of the Economy Act of 1932
18 to purchase UH-60 Mike Model helicopters on the Army's
19 contract. These aircraft would be replacements for our
20 aging November model helicopters used for the ICBM missile
21 fields security and other utility missions as determined by
22 the commander of STRATCOM.

23 The committee agreed, and we passed that request and
24 authorization in the Senate version of the NDAA.
25 Afterwards, the Air Force reversed that decision and decided

1 to proceed with the full and open competition, and then
2 after receiving responses from potential offerors on the
3 draft request for proposals, the Air Force determined none
4 of the offerors, including the 60 Mike Model, met the
5 requirements for the program.

6 What was the reason the Air Force rescinded the request
7 for authorization to use the provisions of the Economy Act
8 when your own business case analysis showed that the course
9 of action met the requirement and provided the best value
10 for the taxpayer?

11 General Bunch: Sir, the Department made a decision
12 based on the amount of money that we were going to move into
13 the year that we needed to --

14 Senator Cotton: The Department of Air Force or the
15 Department of Defense?

16 General Bunch: The Department of Defense made a
17 decision based on the amount of money we were going to need
18 to move into those areas, and we were going on a full and
19 open competition from that point forward.

20 Senator Cotton: Have requirements changed from the
21 time the decision was made to use the Economy Act until the
22 draft RFP was opened for full and open?

23 General Bunch: Sir, let me take that. I don't believe
24 we changed the requirements from that point forward. We did
25 not.

1 Senator Cotton: General Harris --

2 General Bunch: We did not. He's the requirements guy,
3 and I'm the --

4 Senator Cotton: You're shaking your heads. Can you
5 answer for the record?

6 General Harris: The requirements did not change. Yes,
7 sir.

8 Senator Cotton: Okay.

9 General Nowland, I understand that the commander of
10 STRATCOM has rescinded the request for forces to provide
11 additional security since mitigation measures have been in
12 place to satisfy his security concerns. Do these mitigation
13 measures now supplant entirely the need to recapitalize --

14 General Bunch: They do not, sir. They do not change
15 the need to replace the UH1.

16 General Nowland: Sir, I'll pitch in also, Mr.
17 Chairman. What they've done is they've done tactic
18 techniques and procedures and had airmen that have been able
19 to. It does not replace the need to replace the airplane.
20 The requirements are still valid. It's just that the airmen
21 have figured out a way to meet the requirements, but it's a
22 band-aid type of solution. We need new aircraft for that
23 mission set.

24 General Bunch: Chairman Cotton, our nuclear arsenal
25 remains secure, and we're able to execute the mission, but

1 we still need the recap. We still need to get those in.
2 We're doing a draft RFP in April. We will do the final RFP
3 this summer. We'll award a contract next year. We plan to
4 field helicopters in the '20 to '21 timeframe, sir,
5 depending on what the winner comes in with.

6 Senator Cotton: Thank you.

7 I have one final question about the budget, which will
8 probably tie a bow on it. My first question, the
9 constraints of a CR in the short term. This is going to be
10 facing the long term, General Harris. You have many large,
11 long-term procurement programs over the next decade. We
12 touched on some of those but not all of them, nuclear
13 enterprise modernization, F-35A, KC-46A, the B-21, JSTARS,
14 the TXT-38 replacement, the Presidential aircraft
15 replacement, and now there's growing discussion of a
16 penetrating counter-air and associated capability required
17 to outpace our strategic competitors in the realm of air
18 superiority.

19 I think it's safe to say that these represent hundreds
20 of billions of dollars required to recapitalize and
21 modernize the Air Force and remain ahead of our near-peer
22 competitors. Have you received indications from the new
23 administration that the Air Force budget modernization
24 program will support all of these modernization programs?

25 General Harris: Yes, sir, we have. We continue to

1 ensure that those modernization programs, which are large,
2 continue to fit into the budget and the planning cycle that
3 we have. So that's the work that my team does on a day-in
4 and day-out basis. We're doing as much as we can in
5 parallel to solve as many problems as we can, and then we
6 will also continue to modernize the current fleets and
7 assets to make sure that we can sustain the capacity that we
8 have and not drop below any of the requirements over the
9 long term.

10 So it is part parallel, part serial to get at what
11 you're rightly pointing out are some of the concerns we have
12 with the large budget of the future. The best thing we can
13 get out of Congress is a stable budget that predicts, allows
14 us to have a good prediction of where we will be in the
15 future, and then we can right-size our acquisition and our
16 approach to that to make sure we're getting the best value
17 we can.

18 Senator Cotton: General Bunch, General Nowland, do you
19 have anything to add to General Harris' answer?

20 General Bunch: I do not, sir.

21 General Nowland: Mr. Chairman, the modernization byway
22 that we face is critical, and Congress and working with
23 everyone, it's critical to our operators to give our airmen
24 the best chance of success. We are also thinking about how
25 do we out-think our enemy. It's multi-domain operations.

1 We need to think about how we operate in space, cyber, air
2 domain, land, maritime domain, and bring joint effects to
3 the battlefield.

4 I know we focus on all the money and how we're doing
5 it, but what we're really going to do is enable our airmen
6 to think multi-domain of how we can defeat our enemy who has
7 watched us for 26 years and is working to defeat us. So
8 we're going to out-think our enemy while we simultaneously,
9 with your help, reestablish and renew our weapons systems.

10 Senator Cotton: General Bunch?

11 General Bunch: Chairman Cotton, what I want to stress
12 is our role as the acquisition, we have to do that
13 efficiently and effectively to maximize the use of those
14 dollars to get that capability, and our most important
15 treasure, our airmen, America's sons and daughters, that
16 were entrusted to provide that equipment and have a decided
17 advantage on the battlefield, which, as you've talked about
18 earlier, we do not have as much as we did before. That has
19 atrophied away, and we need to continue to go after that.
20 That's our commitment in the acquisition community to do
21 that each and every day.

22 Senator Cotton: Thank you, gentlemen. Thank you very
23 much for your time and your views. This has been a very
24 wide-ranging and informative hearing. We appreciate your
25 service to our country, and on behalf of all the airmen you

1 represent, thank you for their service as well.

2 This hearing is adjourned.

3 [Whereupon, at 5:02 p.m., the hearing was adjourned.]

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25