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HEARING
ON
NATIONAL DEFENSE AUTHORIZATION ACT
FOR FISCAL YEAR 2021
AND
OVERSIGHT OF PREVIOUSLY AUTHORIZED
PROGRAMS
BEFORE THE
COMMITTEE ON ARMED SERVICES
HOUSE OF REPRESENTATIVES
ONE HUNDRED SIXTEENTH CONGRESS
SECOND SESSION
—
SUBCOMMITTEE ON READINESS HEARING
ON
**THE FISCAL YEAR 2021 AIR FORCE AND
SPACE FORCE READINESS POSTURE**

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**THE FISCAL YEAR 2021 AIR FORCE AND SPACE FORCE
READINESS POSTURE**

HOUSE OF REPRESENTATIVES,
COMMITTEE ON ARMED SERVICES,
SUBCOMMITTEE ON READINESS,
Washington, DC, Tuesday, March 3, 2020.

The subcommittee met, pursuant to call, at 2:00 p.m., in room 2118, Rayburn House Office Building, Hon. John Garamendi (chairman of the subcommittee) presiding.

OPENING STATEMENT OF HON. JOHN GARAMENDI, A REPRESENTATIVE FROM CALIFORNIA, CHAIRMAN, SUBCOMMITTEE ON READINESS

Mr. GARAMENDI. This is one of those days where there are a lot of things going on, one hearing stacked upon another, and I know members of this committee have in 15 minutes two hearings going on simultaneously. So, we will do the best we can to move through this one.

I have a short statement I am going to read and Mr. Lamborn may also. Mr. Lamborn has given me permission to speak for him, which he will only do once.

[Laughter.]

Today, the subcommittee will hear from the Acting Under Secretary of the Air Force, the Air Force Vice Chief of Staff, and the Vice Commander of the Space Force regarding the state of military readiness and how the fiscal 2021 operation and maintenance budget request supports military training, weapon systems maintenance, and efforts to meet the full spectrum of readiness requirements that align with the National Defense Strategy.

I am especially delighted to welcome the witnesses from our newest branch of service. General Thompson, welcome.

Oh, now the hard part; the welcoming is over.

[Laughter.]

This subcommittee is interested in hearing from you regarding the progress made in standing up the Space Force, and from each of the witnesses, we would like to hear from you about how the Department intends to man, train, equip, fund, and sustain the Space Force without impact on the other tasks that you have. We understand that you are early in the process of standing up the Space Force and that much work is in front of you, and therefore, we desire to have today the ultimate plan presented to us—not likely.

For the past several years, we have heard the services raise their concerns with the state of the military's full-spectrum readiness after more than a decade of focusing on counterterrorism-counterinsurgency missions. The fiscal year 2020 enacted defense appropria-

tion and the agreed-upon defense top line for 2021 represent significant increases in defense spending. I hope today our witnesses can discuss how these additional resources have been executed by the Department and where we have seen progress in readiness and areas that still require additional attention.

That said, this subcommittee is concerned that the Department, and especially the Air Force, remains overly focused on long-term readiness through modernization programs. We—I—feel that you must place more emphasis on investing in near-term readiness accounts that maintain and sustain the systems that we have in place today, and will have for the next decade or longer.

For example, last year the Department only funded 88 percent of the requirement in your weapons sustainment account and you did not meet aircraft mission capability standard across the service. In fiscal year 2021, the request for the weapon systems sustainment accounts, the full funding will meet 87 percent of the requirement, a little less than last year. This subcommittee would like to hear from you how you intend to increase aircraft readiness while funding these readiness accounts to a lesser degree than last year.

In addition, I am concerned that the Air Force is still relying on overseas contingency operations [OCO] funding to meet basic requirements. Notably, roughly 65 percent in fiscal year 2021 for weapon systems sustainment is in the overseas contingency account. Depending on OCO funds for regular and well-understood requirements such as depot maintenance activity underlines how institutionalized the Department's dependence on OCO funding has become. Going forward, the Department and Congress both must be prepared for a world where this will change. And apparently, if the current negotiations in Afghanistan bear fruit, the change is coming sooner than later.

Related to the budget request, several issues have caught our subcommittee's attention and that impact the readiness of the force. First, that old favorite, the F-35 sustainment. The Air Force has a stretched goal of achieving a cost per flight hour of \$25,000 per hour in 2025; "25 in '25" I believe is the word you use. This committee would like to hear about specific initiatives that you are taking as a service to reduce these sustainment costs and to ensure that you can afford this weapon system as we continue to grow the fleet.

The second issue is the aerial refueling tanker availability to meet combat commander requirements. Given the delays in the KC-46A program, this committee is concerned with the Air Force request to retire 10 KC-10 tankers and 13 KC-135 tankers in fiscal year 2021. So, how does this work? The concern is echoed in a recent TRANSCOM [United States Transportation Command] unfunded requirements letter where it lists these aircraft as the number one unfunded priority to meet the National Defense Strategy mission requirements. I now understand that the Secretary of Defense, Mr. Esper, says that unfunded priorities are really our priorities, congressional priorities. Perhaps they are both our priorities.

The third issue we would like to hear about concerns progress you have made in your effort to close the pilot shortfall gap.

Lastly—and I said this would be short, but it is not—I would be remiss if I didn’t mention the actions taken by the Department last month that disregard Congress’ constitutional authority to determine how the Nation spends defense dollars. The decision to reprogram \$3.8 billion away from military readiness and modernization efforts in order to construct a barrier on the southern border of the United States goes against the priorities of the National Defense Strategy and ignores decades of precedent regarding the reprogramming process. This decision, combined with the \$3.6 billion stolen from military construction projects last year, is both disturbing and, in my view, contrary to our Nation’s security. So, gentlemen, be prepared for questions along this line.

With that, I now turn to the ranking member, Congressman Doug Lamborn of Colorado, for any opening remarks he would like, unless he would simply like to—no, you don’t want to do that, Doug. Your turn.

[The prepared statement of Mr. Garamendi can be found in the Appendix on page 25.]

STATEMENT OF HON. DOUG LAMBORN, A REPRESENTATIVE FROM COLORADO, RANKING MEMBER, SUBCOMMITTEE ON READINESS

Mr. LAMBORN. Okay. Thank you, Mr. Chairman.

Today, we will hear testimony regarding the readiness of the Air Force to execute the National Defense Strategy under the President’s fiscal year 2021 budget request. As DOD [Department of Defense] shifts its primary focus from countering violent extremist organizations to great power competition, our subcommittee will be very interested in how the Air Force balances current readiness with modernization investments. Recent events in the Middle East are a stark reminder of the risk that comes from leaving vacuums for malign actors such as Iran to fill.

Today, we will also hear about the progress in standing up the new Space Force. This recognition of the importance of space as a warfighting domain is long overdue and will be vital to the future readiness of the joint force. My understanding is that Space Force will leverage existing support, Air Force infrastructure, and administration to the maximum extent possible. This is vital to maximizing capability and minimizing overhead.

We also eagerly await the Department of the Air Force’s decision about the permanent basing location for the Space Command headquarters. As you know, I believe that Colorado Springs is the best option, based on many factors ranging from location, civilian and military workforce, existing infrastructure and capabilities, and quality of life for service members and their families.

Now one of the most important issues in the fiscal year 2021 budget request is the proposed expansion of the Nevada Testing and Training Range. The subcommittee has already heard testimony regarding the importance of this range to support operational readiness. The proposed expansion would enable the Air Force to conduct more realistic training for fifth-generation platforms and engagements using precision-guided munitions. The use of land buffers will protect training resources while preserving natural habitats. I look forward to hearing from our witnesses regarding

their progress with stakeholder outreach and engagement with the Natural Resources Committee since our last update.

Issues with the fielding of two new platforms are creating challenges for the Air Force and adding strain to its already stressed budget. The first one—and this has been mentioned as well—and that is the F-35 Joint Strike Fighter. While the capability it brings to the fight is a critical game-changer, ongoing supply chain issues and problems with the ALIS [Autonomic Logistics Information System]—or is it now ODIN [Operational Data Integrated Network]?—data system continue to create challenges for the program. We also need more clarity about how the program will impact future Air Force budgets. As we ramp up production, the imperative of getting sustainment right takes on even more importance.

And I look forward to hearing from our witnesses regarding their perspectives about the technical data and intellectual property issues in the F-35 program. I personally don't believe that the Department should enter into a multiyear performance contract until all remaining technical data and intellectual property issues are resolved. We would also benefit from your thoughts about how we can shift more sustainment responsibilities to the military departments.

The other program with fielding issues is the KC-46A. As of December 2019, Boeing had delivered 30 of these tankers to the Air Force. Unfortunately, ongoing issues with the Remote Vision System [RVS] mean that these aircraft cannot yet perform operational tanker capacity. This shortfall caused the U.S. TRANSCOM commander to request that the Department defer the retirement of 23 legacy KC-10 and KC-135 tankers in his unfunded priority list. We look forward to hearing from our witnesses about the way ahead to address these shortfalls.

One of the key readiness enablers in the Air Force is the organic industrial base. Our depots provide the capability to maintain warfighting capabilities throughout their life cycles. I am concerned that the Air Force plan to recapitalize the depots will require significant investment over many years at a time when it will continue to have a number of other major funding challenges.

And my final concern is about people. This was also mentioned by the chairman. The Air Force has a pilot shortfall of about 2,000, but chose not to fund almost 200 new pilots in the budget request. It is unclear how we will reduce this backlog without full funding.

So, thank you, Mr. Chairman, and I yield back.

[The prepared statement of Mr. Lamborn can be found in the Appendix on page 27.]

Mr. GARAMENDI. Thank you, Mr. Lamborn. Indeed, if our staff had gotten together, we could have written one because what you said is what I would have said, and perhaps vice versa.

I would like to now welcome our witnesses and thank you for your leadership and the service that you provide to our country and for representing the respective services today.

Let's start with Acting Under Secretary of the Air Force, Mr. Shon Manasco. Did I do that correctly?

STATEMENT OF SHON J. MANASCO, ACTING UNDER SECRETARY OF THE AIR FORCE, DEPARTMENT OF THE AIR FORCE

Mr. MANASCO. You did, Mr. Chairman. Thank you.

So, Mr. Chairman, Ranking Member Lamborn, distinguished committee members, thank you for the opportunity to be here today. We never take your support for granted and appreciate the advocacy of this committee and what you provide to our Air and Space Forces, and we are truly grateful.

With the prepared statement in the record, allow me to open with just a few key points.

Mr. GARAMENDI. Let me take that up. Without objection, all the written statements will be entered into the record. So ordered.

Mr. MANASCO. Thank you.

The Department of the Air Force spent the better part of the last three decades in a readiness decline with a shrinking force and a procurement holiday. But the 2013 sequester was a major setback for the United States military, I think as you are aware, and, in fact, it did more to damage readiness than any enemy combatant in recent history. But in 2017, thanks to your leadership, that started to change, and over the last 3 years, through consistent budgets, steady topline increases, and, most importantly, your support, we arrested years of readiness decline and began to rebuild the force. Since April of 2018 alone, we increased readiness by 16 percent across the Department of the Air Force and 35 percent in our leading operational squadrons.

I cannot overemphasize just how important stable and predictable budgets are to morale and readiness. They give us the ability to invest in new programs and to build combat-capable forces ready to compete, deter, and should deterrence fail, defeat those adversaries set upon destructing our way of live.

But we are still too small for what the Nation has asked. With the rise of great power competition and the ongoing fight in the Middle East, the demand for air and space power continues to tax our force, driving tradeoffs between meeting operational requirements and further restoring our readiness.

As we look for new ways to invest in future capability while taking some near-term operational risk, we are prepared to make the necessary choices that are required. We are increasing many levels in support of new fighters, new bombers, and cyber mission teams. We are funding our weapon systems sustainment and flying-hour programs. And most importantly, we are dedicating money and personnel to form the backbone of our newest service, the United States Space Force.

Success in the future requires us to make difficult decisions today and we cannot do it alone. We ask for your help and continued support.

With that, sir, I look forward to your questions.

[The joint prepared statement of Mr. Manasco, General Wilson, and General Thompson can be found in the Appendix on page 29.]

Mr. GARAMENDI. Thank you very much.

General Wilson.

**STATEMENT OF GEN STEPHEN W. WILSON, USAF, VICE CHIEF
OF STAFF, DEPARTMENT OF THE AIR FORCE**

General WILSON. Chairman Garamendi, Ranking Member Lamborn, all the distinguished members of the committee, I, too, want to echo my support and thanks for all your help over the last few years.

This marks my fourth consecutive year testifying before this committee. I have enjoyed a front-row seat on the readiness recovery that you all have helped enable. And I can honestly say that today your Air Force stands more ready than it has been in years, thanks in no small part to your support.

So, I owe you my best military advice. We are ready today, but if you ask me, do we have the force structure we need to deter competitors of tomorrow, will we be ready for the threats appearing over the horizon, I would answer we certainly can be. Indeed, we must be. And with your continued support, I am confident we will be.

As I reflect on all the studies we have conducted, the countless hours we have spent with our joint partners examining the National Defense Strategy, and my 39 years of experience in this service, there are three fundamental truths that I have come back to.

The first is we cannot win tomorrow's war with today's force structure. Your Air Force remains too small and too invested in capability that was simply built for a different time. So, we have to modernize. If we are to modernize in a cost-effective, responsible way, we have to make hard choices now—choices on both capability for the future fight, but, more importantly and much more difficult, choices on the Air Force we can't afford and the capabilities that we must divest to enable the transition to a superior ready force for tomorrow. This budget reflects those hard choices, and we need your continued leadership to see those through.

Second, modernization is critical, but it will be irrelevant if it is late to need. If we cede the initiative to China or Russia, then we play catchup for years. We are either leaders or followers in this competition, and history has never been kind to the followers in the matter of war. There is no question that China and Russia are moving out of pace. They have been informed by careful study of our way of war, and they continue to invest in disruptive technologies and to target the very core of our competitive military advantage. Unabated, this risks our ability to maintain a peaceful world order. Your support to ensure stable, predictable, and sufficient budgets and your willingness to support agile acquisitions that enable timely delivery of capability to our airmen is critical to keeping us ahead of the threat.

And finally, I remain convinced that our most important weapon system, America's asymmetric advantage, is not hardware; it is our airmen. We appreciate your continued leadership and advocacy to ensure they remain the best trained, best equipped, and best led airmen in the world. We have no greater duty than to prepare them for the challenges of peer competition and to care for them and their families as they defend our freedom and America's interests around the globe.

Thank you for your leadership and your partnership, and I look forward to your questions.

Mr. GARAMENDI. Thank you, General Wilson.
Let's go to space, General Thompson.

**STATEMENT OF LT GEN DAVID D. THOMPSON, USAF, VICE
COMMANDER, HEADQUARTERS, UNITED STATES SPACE
FORCE**

General THOMPSON. Chairman Garamendi, Ranking Member Lamborn, and distinguished members of the committee, I am honored to appear before you today along with my esteemed colleagues and am privileged to be one of the 16,000 men and women currently assigned to the U.S. Space Force, serving under the leadership of General Jay Raymond, the first Chief of Space Operations. These space professionals remain the best in the world at developing, fielding, and operating space systems, the systems that maintain the combat edge of our Armed Forces and what they enjoy as a result of freedom of action in space.

On December 20, 2019, the President and Congress established the U.S. Space Force as the newest branch of the Armed Forces, an historic milestone for the Nation. Building the U.S. Space Force is our top policy priority. The Department is moving quickly to stand up a lean, agile, and mission-focused organization while we continue to develop the capabilities, warfighting doctrine, and expertise needed to outpace future threats and execute today's critical space missions.

As you all know, the important question when it comes to readiness is, ready for what? The fiscal year 2021 space budget continues us on a path of irreversible implementation of the National Defense Strategy, which remains our guide star and our decision-making guide. Progress along the lines of effort in that document increasingly improve our ability to address near-peer threats in space and is sustained by adequate and timely funding of you, our partners in Congress.

The U.S. Space Force is pursuing a strategy to ensure we can deter hostile action, defend and protect our interests, and, if necessary, fight in, through, and from the space domain. This budget submission includes increased investment in four elements of that strategy.

First, protecting and defending the highly capable satellite systems we depend on today.

Next, fielding a robust architecture that is resilient under attack and delivers space capabilities through all phases of conflict.

Then, developing warfighters who are the essential part of winning the fight in the space domain.

And finally, developing a broad range of options to respond with national security space capabilities, if attacked.

The Space Force is making significant investments to harden our assets and strengthen our posture in space and on the ground. For example, we are continually improving our space domain awareness network needed for the deep understanding of activities in space to treat it as a warfighting domain.

Second, field and command control tools that provide both warfighters and commanders awareness, flexible options, and responsive solutions in crisis.

In addition to that, we are modernizing vital warfighting capabilities, including improvements in GPS [Global Positioning System] anti-jam and anti-spoofing, and jam-resistant, low probability of intercept waveforms for the family of advanced beyond-line-of-sight terminals which provide nuclear survival communications for our Nation's leadership.

Assured access to all orbits is also fundamental to sustaining the United States freedom of action in space. National security space launch investments in this budget increase competition among launch providers, eliminate our reliance on the RD-180 engine, and ensure the space domain access for all of our national security space needs.

Likewise, the Space Force is continuing to broaden the space industrial base and bringing cutting-edge technology to space prototyping. Innovative approaches to space acquisition, including Space Pitch Days and the Space Enterprise Consortium, will reap the benefits for the Space Force in terms of leveraging commercial investment, accelerating new technology, and rapidly prototyping and acquiring new systems.

With all of the physical assets of the Space Force and everything that it has to execute its missions, it is the people who power the Space Force and who are our most important asset. We are developing detailed plans, and by fiscal year 2021, expect to transform more than 6,000 personnel into the U.S. Space Force. Ultimately, we will expand that cadre to more than 12,000 space professionals across 15 career fields to protect U.S. interests in space well into the future.

Let me close by stating once again that we do not seek conflict in space. However, we must maintain a position of strength and develop a credible warfighting capability in order to deter conflict and maintain a full range of options to ensure our national security. The U.S. Space Force is taking the lead to preserve U.S. and allied interests to broad capability across the continuum of conflict and defend our forces, our allies, and our partners.

Thank you again for the opportunity to testify. I look forward to your questions.

Mr. GARAMENDI. Thank you very much.

In my opening statement, I raised about seven, eight different specific issues. I won't ask those questions here, but I would expect in the days ahead that we would have response to those questions.

I think I gave you a heads-up ahead of time. Again, I don't expect a response here. I know that two Air Force bases in California are significantly impacted by the coronavirus and the evacuees from various parts of the world. I would like a full explanation of what is going on at Travis and March Air Force Base, as well as the Marine Corps bases. I think there are other bases around the Nation. So, if you gentlemen can develop that and get back to us immediately about that. I will note that there is a public health emergency at Travis. And so, the question is apparent.

I am going to go to you, General Thompson, with a quick question. I guess, actually, it is—well, a question. The California National Guardsmen are already operating space missions for the Air Force and for the Army, including secure satellite communications, space control, space operations, intelligence, ISR [intelligence, sur-

veillance, and reconnaissance], ICBM [intercontinental ballistic missile] and missile defense, a major part of the space operations.

I know you are still in the early stages. You haven't figured out how to integrate both the Reserve and the National Guard into your programs. I would urge you to keep in mind that these units have been operating for some time, and if integrated fully—that is, as a unit—I think you would be well served. And if you were to break them up in some way, then you get to start to rebuild units that are already in place.

Bringing your attention to the 195th Wing at Beale Air Force Base, the 184th Space Operations Squadron, the 216th Space Control Squadron, the 234th Intelligence Squadron, and then, the missile defense programs at Vandenberg with the 130th Missile Defense Brigade detachment, which operates the Vandenberg missile defense systems, keep that in mind.

I am going to forego any more time of my own and pass this to Mr. Lamborn.

Mr. LAMBORN. Thank you, Mr. Chairman.

I will just jump right in. For Acting Secretary Manasco, based on the hearing that we had on land withdrawals from military ranges, I have some questions about stakeholder outreach and the status of Air Force efforts to engage the Natural Resources Committee, which has primary jurisdiction on land withdrawals. What is the progress in both of those, stakeholder outreach and discussions with the Natural Resources Committee?

Mr. MANASCO. Congressman, we have been in active conversations at the national, local, and State level. And so, as you well know, there is a lot of conversations still yet to take place. I think you mentioned in your opening comments just how important it is that we get this right and the reasons for which we are seeking an expansion. But we have, like I said, active conversations, and if there are others that we need to be reaching out to that we just haven't yet, we stand ready to do so.

Mr. LAMBORN. Okay. And just so everyone will know on this subcommittee and for the record, why is the current footprint of the range insufficient?

Mr. MANASCO. So, Congressman, as we look at the near-peer competitors that we face, it is clear today that the existing range itself is insufficient in size, just given the training that occurs there and the adversary air which tries to simulate what we would face in a near-peer fight. The range and speed and distance of our adversaries is increasing. And so, therefore, we need to look at our range facilities with that lens. I would be remiss, though, if I didn't mention that, from our perspective, these ranges are truly a national treasure, and we want to do everything possible to ensure public safety and to leave them in a really great condition.

Mr. LAMBORN. Okay. And I do realize we are in open session and we can't go into all the details, but I appreciate that answer.

Changing gears, during my recent visit—and I was with Representative Scott of Georgia as well—we went to Warner-Robins Air Force Base and saw the depot there. I was very impressed with the quality and effort of the industrial work to maintain Air Force aircraft, but I am concerned about the state of the facilities. My understanding is that the Air Force's 20-year recapitalization plan

will cost about \$26 billion. How are we going about committing that amount of money each year to achieve that goal?

Mr. MANASCO. Congressman, over the last few years, we have committed upwards of \$2 billion for the modernization, recapitalization of these depot facilities. And it should be noted that we really do admire and appreciate and respect the skilled professionals that occupy these depots and do work on behalf of the Department of the Air Force. And so, they are of vital importance to us. And lastly, we are committed to living up to the 6 percent statute to be able to fund, again, their recapitalization in the future.

Mr. LAMBORN. Okay. And during our last depot hearing in November, the Air Force talked about having the benefits of direct hiring authority, but also about the negative impact of the 180-day military retiree waiting period requirement. If we were to remove that waiting period at least for certain positions—let's say GS-13 and below, not for the highest grades, but for GS-13 and below—how would that impact the mission capabilities and being able to hire the right people at your depots?

Mr. MANASCO. I will just make mention of one thing, and I think I will turn it over to General Wilson. I think he has a point of view on this.

But, Congressman, we would support any help that you and your colleagues might give us to be able to hire those individuals directly without waiting 180 days. As it turns out, in a very tight labor market, if we are not careful, we will let those highly skilled people get hired by someone else.

Mr. LAMBORN. General.

General WILSON. Congressman, I would echo the same thing. We are in a competition for talent. Anything that slows us down from bringing talent onboard lets them go somewhere else. So, as we try to close that gap, we want to look for all the authorities to bring on people as quickly and as fast as possible. And I will give you the good news story. We have done just that with your help. So, some of your direct hiring authorities have allowed us to bring on people much faster, and we would say maybe in the future we can work with the committee to see where we could expand that more broadly to bring on talent even quicker.

Mr. LAMBORN. Okay. Thank you. Maybe we can address that in this upcoming NDAA [National Defense Authorization Act].

And lastly, for General Thompson, my understanding is that the Space Force currently has one member, General Raymond, but we will be gaining 60-some new officers when they graduate from the Air Force Academy in May. You did a good job in your statement of explaining the future missions of the Space Force, but when it comes to making sure that we get the most for our dollars, can you talk about how the Space Force will leverage existing Department of the Air Force overhead and support functions, so that we can minimize the duplication of bureaucracy?

General THOMPSON. Yes, sir. Thank you. And if I can, before that, I will say there are 16,000 other of us assigned, not yet transferred into, but anxiously looking forward to the day when perhaps we can join him as commissioned and enlisted members of the Space Force as well.

And as you stated exactly, we are very much focused on creating the Space Force in a lean, agile, and very mission-focused sense. What that means is, the Space Force itself will focus on developing, acquiring, fielding, and operating space capabilities. That includes an intelligence enterprise required to conduct operations in space as well as focused cyber warriors who will operate and defend and protect our cyber mission systems in space.

Most of the remaining support will be provided by the Department of the Air Force and the United States Air Force in a similar manner to the way they do it today. Base operating support, physical security, civil engineering, our chaplains and JAGs [Judge Advocate General's Corps] and personnelists, all of that will continue to be provided by the United States Air Force, so that the U.S. Space Force can focus on its mission. Our estimate today, when we look at the support functions and field agencies and other activities required to operate the Space Force, about 80 percent of that activity will continue to be provided by the U.S. Air Force under the leadership of the Secretary and the Department, while we focus on operations and the critical needs in space.

Mr. LAMBORN. Along that line, I am sure there are thousands of decisions that have to be made. General Wilson, how are these decisions coming along, according to what Lieutenant General Thompson just said?

General WILSON. What I think you are seeing is a seamless integration between air and space, and we are going to continue to remain so. The Secretary has been very clear that that is her number one priority, is to make sure that the Space Force is successful, and we are going to do everything we can to do just that.

Mr. LAMBORN. Thank you. Mr. Chairman, I yield back.

Mr. GARAMENDI. Thank you very much.

I had raised the issue of the coronavirus. The 7th Air Force I think is in the hot zone in Korea and other places. So, if you could by Thursday report back to us on what is happening, what your plans are, and so forth?

Mr. MANASCO. Yes, sir.

Mr. GARAMENDI. Okay. Thank you.

Ms. Haaland.

Ms. HAALAND. Thank you, Chairman Garamendi.

And thank you, gentlemen, for the opportunity to speak directly to you on critical Air Force and Space Force readiness matters.

General Wilson, I am pleased to see that building a seamless, integrated joint force is the top focus area noted in your memo for achieving the ready and modernized force we need. We all recognize the need to fully use our National Guard and Reserve and the value that investment brings to protecting our Nation, our States, and our local communities. In my district, we have many resources, including a very nice, open ramp space, ops facility, and hangars where the famous F-16 Tacos once resided. That ramp space could add significant value toward military readiness and leverage the synergies between three special operations wings stationed in New Mexico. What are some of the best opportunities you see for the Department to tap into these kinds of resources and fully integrate the joint force?

General WILSON. Congresswoman, as you know, across the whole force, we can't do any mission without the total force. It takes the Active, Guard, Reserve across air, cyber, space, and all the missions across the different pieces of that. The Chief were to say, if he were to go fly in a C-17 today in the Middle East, he couldn't tell if it was Active, Guard, or Reserve because they are all there and they are doing that seamlessly.

So, we continue to look for missions in New Mexico which the Guard could be a significant part of. They are in every mission area, and I think there will be opportunities in the future which we can continue to look for opportunities for New Mexico to do that.

Ms. HAALAND. Thank you. I appreciate that commitment.

General Thompson, it was noted in the very recent report to the committee that the DOD [Department of Defense] intends to establish several Space Force Centers or center equivalents to execute space-unique functions that will be, quote, "co-located with Air Force counterpart Centers to the maximum extent practicable in order to leverage existing infrastructure and resources." I will note that my district is home to critical Space Force assets on Kirtland Air Force Base, such as the Space and Missile Center, Advanced Systems and Development Directorate, Space Rapid Capabilities Office [RCO], and key Space Force partners like the Air Force Research Labs, Space Vehicles, and Directed Energy Directorates. Given all those obvious synergies, would I be correct in thinking that bases like Kirtland with its cutting-edge space capabilities would be on the short list?

General THOMPSON. Yes, ma'am. I would like to say, as you listed, there are a tremendous number of capabilities at Kirtland Air Force Base today. It is a national center when it comes to science and technology research and development. You listed the Research Lab, our Advanced Development Division, and the Space RCO. Kirtland plays a tremendous role, and has for many years, in terms of prototyping, researching, and delivering new space capabilities for the Nation. I have no doubt it will continue to play that role for the Space Force and well into the future.

Ms. HAALAND. Thank you. Thank you for that.

And how much time do I have?

General Wilson, as the chairwoman of the National Parks, Forests, and Public Lands Subcommittee, I am paying close attention to the Department's proposals that impact public lands that have great environmental value and are key to preserving irreplaceable Native American cultural resources and tribal history. In your view, can the proposed expansion of the Nevada Training and Testing Range be carried out in a manner that both enhances military readiness and is compatible with stewardship of natural and cultural resources? And what are you doing to ensure that Native perspectives on this issue are fully considered?

General WILSON. Congresswoman, the short answer is, yes, I think we can. We have to work together. Your local and tribal communities have to be part of the discussion/conversation, and I think we can effectively do that to preserve all the things you just mentioned while we also expand the airspace to allow the type of training we need for peer competition.

Ms. HAALAND. Thank you so much. And since I have just a few seconds left, I will ask, while there is a clear readiness argument for the expansion, there are also significant concerns for many sectors. Can the expansions be phased in to allow time to work through the issues with other stakeholders, in your opinion?

General WILSON. Yes, I think they can be phased in.

Ms. HAALAND. Thank you. Chairman, I yield.

Mr. GARAMENDI. Thank you.

General Thompson, let me compliment you on the very adroit dance that you made in answer to the woman's testimony.

Mr. Rogers.

Mr. ROGERS. Thank you, Mr. Chairman.

General Wilson, there has been some discussion about pursuing a long-term, performance-based logistics [PBL] contract for the sustainment of the F-35. Can you share your thoughts about that, any concerns you may have with things like intellectual property and data rights?

General WILSON. Yes, Congressman, I am not sure we have the data yet to be able to jump into a long-term, performance-based logistics contract. But, sir, we will work with the JPO [Joint Program Office] and all the stakeholders as we get better insights into the data to be able to make a better decision on PBL going forward.

Mr. ROGERS. So, that is a longer range possibility?

General WILSON. I believe so.

Mr. ROGERS. Great.

General Thompson, you will be pleased to know I am not making a pitch for a headquarters in my district.

[Laughter.]

However, you know, if you want to.

[Laughter.]

One of the things that drove us to create the Space Force was in the Air Force there is a culture that is indoctrinated in every service member that you start, from the time you join the Air Force, that your number one mission is air dominance, and it should be; it is the Air Force. How can you ensure that, as you stand up this new service, that you can indoctrinate that same mission priority of space dominance into the new members of the Space Force? And it is a cultural thing.

General THOMPSON. Congressman Rogers, thanks so much for that question. In fact, we have for decades been developing a space culture and we have a space culture inside what was once the United States Air Force and is now the United States Space Force. That culture, however, was developed in a different time in a different area for a different set of missions in a different environment. It has only been in the last 6 or 7 years where we have truly embraced and understood the threat we face in space, and so, have begun already developing the culture that is truly a warfighter's culture. And there are several ways that we have done it.

The first is, and obviously was, the acknowledgment of the leaders and the Nation that it was a warfighting domain. The next thing we did is we have already overhauled our training system. Our training system is now focused on threats in space, the development of tactics, techniques, and procedures to address those

threats, and ensuring we can deliver capabilities across all of the spectrum of conflict.

We have also more closely integrated ourselves with other warfighters, first, in the Air Force through Red Flag and some of the advanced training exercises we do, but also the joint force through Tier 1 exercises. I will argue there is great value in understanding the cultures of other warfighters, other warfighters that they, themselves, have different cultures, but understand what it means to develop a plan, to understand your role in the plan, how you are going to develop contracts with other warfighters. And that has been of value as well.

Mr. ROGERS. Yes, I was very pleased—and the committee will be interested to know—in talking with General Raymond a couple of weeks ago, I had mentioned, because Air University is in Alabama, that I thought that we should enhance their space curriculum and rename it Air and Space University. And he gently pushed back and said, no, we want our own university.

General THOMPSON. Yes, sir.

Mr. ROGERS. And we will still use the Air Force Academy as our service academy, but, as far as continuing education. And I think that is a great example of saying, no, I want to build my own culture.

General THOMPSON. Yes, sir, and we have created our own Space flags and we have our own war games. Those are the sorts of things we must continue to do.

Mr. ROGERS. Okay. Lastly, you talked about growing the number of professionals over the time by 12,000. Is that civilian personnel you are talking about?

General THOMPSON. Sir, that's all, all of the above.

Mr. ROGERS. Okay.

General THOMPSON. Right now, in fiscal year 2021, we plan to transfer in—I am sorry, let me make sure I have got the numbers right; I have got them written down—in 2021, it is about 3,500 civilians and it is 6,430 military. Over the course of the Future Years Defense Program, it is going to be about 8,100 military and 4,200 civilians. So, it is a mixture, as you see, to get to that 12,000. It will be both.

Now I should also say civilians will be assigned to the Space Force. Like in the Department of the Navy, all civilians will be Department of the Air Force civilians, but they will be assigned in the Space Force.

Mr. ROGERS. Great. Thank you for your service.

And I yield back.

Mr. GARAMENDI. Mr. Rogers, in answer to your question, my grandson, I asked him last week where he intended to go to college. He is a senior. And he said, "Wherever I can get the best education to get into the Space Force."

[Laughter.]

Ms. Horn.

Ms. HORN. Thank you very much, Mr. Chairman.

Thank you, gentlemen, for being here with us today and for your testimony.

I also want to commend Congressman Rogers and also Congressman Cooper for the work they did on the Space Force and outlining

the importance of standing up the Space Force. I will get back to questions about that in a minute, but I think there is a lot more work to do to help people understand, and the general public, as well as to support you all in standing this up.

But I want to start at readiness and the tankers and KC-135, KC-46A, and what we are looking at there. As you know, Tinker Air Force Base, right there at the edge of my district in Oklahoma City, is the home to maintenance and refurbishment of the ongoing KC-135 and will be with KC-46A. But, quite frankly, we have got a number of concerns about the readiness and what that looks like for our tanker program because the budget request includes retirement of 10 KC-10s and 13 KC-135 aircraft. Knowing that these aircraft are 70-plus years old, and the civilian contractors, the individuals, armed services at Tinker do an amazing job of refurbishing these aircraft, it is remarkable that they are still flying, and we have to continue to keep them up.

But, with the challenges with the KC-46A tankers, I am concerned about this proposed transition and retirement of the 13, and just saw an article from—let's see, I just opened it up—the Air Force Magazine that came out about the testimony in front of the Senate, that until the RVS challenge is fixed, the Air Force is not going to commit to using the KC-46As. So, I am concerned about the readiness issue there. I would like to find out—and I will start with you, Mr. Secretary, or whoever is most appropriate—is there a plan to put more KC-135s through the modernization process to help prevent this gap? Or what is our contingency plan here?

Mr. MANASCO. Ma'am, yes, we are investing in that platform to modernize it. And ultimately, our goal is to get down to a two-tanker fleet. Like many of our other weapon systems in this budget, we had to take some risk. And so, we are actively in conversations with General Lyons in TRANSCOM to make sure that we can do everything we can to cover the needs of that combatant commander.

I will make note of the KC-46. I had the opportunity to be on that platform roughly 2 months ago, and I saw it at its best and I saw some of the limitations firsthand. We are in active conversations with Boeing on what a permanent fix might look like and we look forward to being able to continue to make progress. And ultimately, if we were to have to go to war tonight, General Miller, I think as you probably may have heard, has said that she would put that tanker in a fight.

Ms. HORN. Thank you.

And following up on readiness and the impact of tankers, but also pilot shortage, let's talk about that. I happen to agree—I was nodding my head intensely—with both opening statements of the chair and the ranking member. I think we are very much aligned. With the 2,000-pilot shortfall across all airframes and the reduction in intended pilots, that seems to be going in the opposite direction with the need for more pilots. As you look at this issue, how do you plan to bridge that gap when this proposed FY21 [fiscal year 2021] reduces the number of pilot slots?

General WILSON. Congresswoman, let me assure you we are not reducing the number of pilots that we are trying to build. We actually have a really good news story. In 2015, we graduated about

1,000 pilots. In 2019, we graduated almost 1,300, and we will graduate a little bit more than that in FY20 [fiscal year 2020]. Our goal is to get to almost 1,500. So, we have seen a 30 percent increase in the pilot production over the last 3 years, thanks to your help. And we are on a path to be able to continue that to get towards 1,500, which we think we need. This is a national problem, though. Between all the services, we are going to produce 2,200 pilots and the airlines are going to hire 5,000. So, that is the challenge we face.

Our Training Command has done some remarkable work in terms of what they call Pilot Training Next. And so, it is where they go to student-focused curriculum that is individualized and using augmented reality and virtual reality to help not only make it better, but also make it faster. So, we think there is great potential in that. We are now on to the next phase of it. We are going to try to scale that across all of our UPT [Undergraduate Pilot Training] bases starting this next year.

But we, too, are concerned on being able to produce the number, but then the next part is I have got to be able to season them with the right flying hours, and then I have got to retain them on the back end in this process. We have got efforts underway on the production, the seasoning, and the retention of our pilots.

Ms. HORN. Thank you, General.

I guess, General Thompson, I will have to follow up on questions later for the Space Force.

Mr. GARAMENDI. Mr. Scott.

It may be the coronavirus and the slowdown in the airline industry might help solve your problem.

Mr. SCOTT. Thank you, Chairman.

Mr. Secretary, you are a West Point grad. That makes you Army. [Laughter.]

Mr. MANASCO. Sir, some have said I have traded up.

[Laughter.]

Mr. SCOTT. I have got some family members that would argue with you.

But I share Congressman Rogers' concern about the focus on air dominance for our troops on the ground. I have watched as the Air Force has tried to get rid of the A-10, has terminated the JSTARS [Joint Surveillance and Target Attack Radar System] recap [recapitalization]. And I am going to come back to the ABMS [Advanced Battle Management System] system in a minute. But I am very concerned that, if it is going to be the command and control platform for all of the branches, that especially the Army has not been involved in the development of that platform. And now, as I understand it, Army Futures Command has expressed very serious reservations about whether or not ABMS can be the sole command and control platform for the U.S. Army.

But you made a statement in the first part, "stable and predictable budgets". The Air Force has asked to pull the base budget down. And this is the first time I have ever seen any agency or branch do this. You have asked to reduce your base budget by about 20 percent on the Active Duty Component and increase the OCO funding by almost—you almost double it. I mean, you increase it by 80 percent, and you are effectively moving 50 percent,

if my calculation is correct, approximately 50 percent of weapon systems sustainment to the OCO budget. What is the reasoning for this? From the weapon systems sustainment standpoint, this is contrary to what you would want if you wanted “stable and predictable budgets.”

Mr. MANASCO. Sir, let me start by saying, yes, as a young man, I was a soldier and my middle son is a soldier. And so, the efforts that we have underway with ABMS, we are absolutely committed to making sure that we do what we have to do to support troops on the ground. So, I wanted to start there. That is important to us and, by design, it will be just that. And we will work very closely with our sister services to bring this concept of JADC2 [Joint All-Domain Command and Control] to life.

Mr. SCOTT. Yes, and if I may, Mr. Secretary, my point is they need to be involved in the development from the ground, from the ground up.

Mr. MANASCO. We couldn't agree more.

With respect to the overall budget, sir, our budget in the Department of the Air Force is roughly \$169 billion, and a little over 15 of that, yes, is in space. And so, we submitted for the very first time the Space Force budget. And we are committed to weapon system sustainment [WSS], but, as you may know, to look at the requirements 2 years out in front, we have to make some educated guesses around what those requirements might look like. But in this budget we have over \$17 billion set aside for the WSS account.

Mr. SCOTT. But the majority of that, at least 50 percent of that is in the OCO section, correct? Over \$8 billion of the \$17 billion has been moved to overseas contingency operations, which actually makes it, quite honestly, more subject to reductions. Most agencies want a higher base budget and less OCO because, from a long-term planning standpoint, it is just more stable and helps you plan for the future. OCO is something that may happen or may not.

Mr. MANASCO. Sir, on those numbers, I just want to make sure that we have the exact same ones. And so, if it is okay, I might come back to you. Because you raised a really good question, but I think there might be some confusion in the numbers themselves.

Mr. SCOTT. Okay. So, I am happy to take the answer. I am looking at a base budget for 2020 of \$42 billion; base for 2021 requested, \$34 billion. OCO, and the center of the Active Duty Component, OCO for 2020 is \$10.3 billion; OCO for 2021, \$17.9 billion. And then, the explanation, the majority of that plus-up is a transfer from weapon systems sustainment. I am happy for the Air Force to get back to me with a more detailed answer. But, typically speaking, base budget is better than OCO.

Mr. MANASCO. We will take that, sir, and come back to you.

[The information referred to can be found in the Appendix on page 45.]

Mr. SCOTT. Thank you.

Mr. GARAMENDI. Mr. Scott is into a very important issue about where the money is coming from. The OCO account, he correctly points out, is used for sustainment. The question is, why that? How do you intend to transition away from that in your base budget?

Those are all questions that we would expect to get back. I know the staff is going to be coming to you with a series of questions

along that line. Also, with regard to the weapons account and your balance, how you deal with that. It has been drawn down. You are going to rebuild it. There are some issues about the flow of money in and out of accounts. So, staff is going to go into that in great detail.

Mr. Bergman.

Mr. BERGMAN. Thank you, Mr. Chairman.

And we will start out a little bit light here in the mood on the front end. I noticed that recently the Space Force has figured out their camo [camouflage] uniform. And so, the only thing I would suggest you can call what you are wearing today is service dress alphas. That is what we call them in the Marine Corps. I applaud our brothers in the Army for making the decision to go back to a World War II era of the belt because in a real sense, but also what we talk about here is limited resources, a belt well-worn shows where the excess is. The point is, on this committee, we look to where we are spending our money, where we are appropriating the money, and then, you are spending the money, and where we can be a partner with you to help you achieve your mission accomplishments. So, we are in a situation where belt tightening has to happen from time to time. So, just consider that as the Space Force when you are considering your service alphas. A well-worn belt would look probably pretty good.

Now I know we have heard a little bit of comment about where you might want to put some headquarters other than Colorado Springs. I am not suggesting we don't put it there. But I guess, as you look at Space Force, are there any opportunities or considerations for, let's say, a northern tier presence as we look at things, not building new bases necessarily, but using capabilities that already exist to look at what you are going to be doing as a Space Force to counter hypersonics, which is horizontal launch or difference in vertical launch or telemetry as you are matching the satellites with autonomous vehicles on the ground or anything like that? Is there anything that you care to share with us at this end as far as the future?

General THOMPSON. Congressman, yes, if I can. In fact, as a result of the establishment of the Space Force, and as we develop the organizational structure associated with the field commands, what we have done, in essence, with that and with headquarters U.S. base command basing, is we are now going to take a holistic look at all of the potential options, all the potential locations. We have been directed to go back, open up the aperture, and look at all of them. And so, that includes bases. It includes perhaps some non-traditional locations. We will absolutely establish the criteria we need for each of these organizations and, then, base them accordingly.

Mr. BERGMAN. Yes, is one of those criteria going to be potentially not necessarily co-locating with, but at least sharing facilities with commercial space?

General THOMPSON. Sir, we are going to develop all of those criteria. Some of those may be exactly opportunities with commercial space. They may be opportunities with civil space. Certainly they will be opportunities with the Air Force, perhaps other organizations. Absolutely, we have been challenged by our leadership to

look at that whole problem a little differently than we have in the past.

Mr. BERGMAN. Okay. I look forward, as you move forward with those decisions, in how you are going to marry in the public and private sector, if you will, to get the capabilities up to speed as quickly as possible, leveraging in this case private sector technologies.

I want to switch subjects here for my last few seconds. This budget request increases pay for flying hours to \$6.6 billion. What does this equate to in average monthly flying hour per pilot? Can anybody throw that out there? And is that enough to maintain proficiency?

General WILSON. Congressman, I can't give you an exact specific, but I can tell you over the last few years we have seen flying hours increase from about 15 hours per month now to about 19 to 20 hours per month.

Mr. BERGMAN. Now that is seat in the airframe?

General WILSON. That is seat in the air.

Mr. BERGMAN. Okay. And how many simulator hours is that pilot getting a month to, let's say, do the mission prep, all of that, in the simulator, where it is a whole lot cheaper and a better training environment, then, before they strap it on and get airborne?

General WILSON. Congressman, we are balancing both, right? Because we are also upgrading our simulators to be able to do this, so I can connect virtually and actually do large force exercises connected and distributed through simulators. And so, simulators and moving forward with our sim infrastructure is a big part of it. But we are balancing both to be able to do it in sim as well as there is nothing like doing it in the air real time.

Mr. BERGMAN. Yes, and we are in an unclassified setting here. So, you know that the training and capabilities that we are going to need in our pilots with airframes or flying like the F-35 and others, whether they be manned or unmanned, the best training initially to get them—the “switchology,” if you will, or “thinkology,” or whatever you want to call it, is going to be the first phase in the simulator.

And I am pretty sure you would agree with this, that you can create an airframe quicker than you can create an experienced pilot.

General WILSON. I agree.

Mr. BERGMAN. Okay. So, as we go forward in pilot retention, knowing that the market for commercial pilots is going to be good and the family always gets a vote, as we leverage that experienced pilot and keep them in a seat, whether it is in a Guard, Air Guard unit, whether it is in an Air Force Reserve unit, whatever it is, I want to compliment the Air Force for when you went with the associate squadrons well over a decade ago because that is the model going forward.

With that, Mr. Chairman, I yield back.

Mr. GARAMENDI. Thank you.

I want to ask you a question, sir: where you learned in the Marine Corps about the purpose of a belt?

[Laughter.]

Mr. BERGMAN. Our Class A uniforms have always had an external belt. Since the Navy is not here to defend themselves, I am just going to have a Marine, since we are both, by the way, Department of the Navy—so, by the way, if the Space Force wants any tips and tricks about dealing as a department within a bigger department, the Navy wears the double-breasted navy blue coat.

Mr. GARAMENDI. Yes.

Mr. BERGMAN. And sometimes it is a good camouflage in its own right. Whereas, the belt on the Marine Corps, we are a very physical service. So, that is where I was going with the belt.

Mr. GARAMENDI. I appreciate the information. It is invaluable.

[Laughter.]

Gentlemen, we have another hearing going on simultaneously which two of us or three of us should be attending.

There are a series of questions. I draw your attention to Mr. Lamborn's opening statement in which he raised several points, as did I. We have concerns about all of these issues. Staff will be back with you. And the questions I have asked, one of them is very timely, the corona, how it affects our readiness. I mentioned Korea; Italy, the United States, and so forth. So, please get back to us with that. And at this point, this meeting is adjourned.

[Whereupon, at 3:16 p.m., the subcommittee was adjourned.]

A P P E N D I X

MARCH 3, 2020

PREPARED STATEMENTS SUBMITTED FOR THE RECORD

MARCH 3, 2020

Statement by Chairman Garamendi

Ladies and gentlemen, I call to order this hearing of the Readiness Subcommittee of the House Armed Services Committee.

Today the subcommittee will hear from the Acting Under Secretary of the Air Force, the Air Force Vice Chief of Staff, and the Vice Commander of the Space Force regarding the state of military readiness and how the fiscal year 2021 operation and maintenance budget request supports military training, weapon systems maintenance, and efforts to meet full spectrum readiness requirements in alignment with the National Defense Strategy.

I am especially delighted to welcome the witness from our newest branch of Service – the United States Space Force. This subcommittee is interested to hear from you regarding progress made in standing up the Space Force. And from each of the witnesses we would like to hear about how the Department intends to man, train, equip, fund and sustain the Space Force without impact to the other Services. We understand that you are early in the process of standing up the Space Force, and that much work is in front of you, but any details you can provide today would be most welcome.

For the past several years we have heard the services raise their concerns with the state of the military's full-spectrum readiness after more than a decade of focusing on a counter-terrorism and counter-insurgency mission. The fiscal year 2020-enacted Defense Appropriations, and the agreed-upon Defense topline for FY2021, represent significant increases in defense spending. I hope today our witnesses can discuss how those additional resources have been executed by the Department, where we have seen progress in readiness, and areas that may still require additional attention.

That said, this subcommittee is concerned that the Department, and especially the Air Force, remain overly focused on long-term readiness through modernization programs. We feel that you must place more emphasis on investing in near-term readiness accounts that maintain and sustain the systems we have in place today. For example, last year the Department only funded to 88% of the requirement in your Weapon Systems Sustainment account, and you did not meet aircraft Mission Capable standards across the Service. In the fiscal year 2021 request for the Weapon Systems Sustainment accounts, the funding will meet 87% of the requirement. This subcommittee would like to hear how you intend to increase aircraft readiness while funding these readiness accounts to a lesser degree than last year.

In addition, I am concerned that the Air Force is still relying on the Overseas Contingency Operations funding to meet base requirements. Notably, roughly 65% in fiscal year 2021 for weapon systems sustainment is in the OCO account. Depending on OCO funds for regular and well-understood requirements such as depot maintenance activities underlines how institutionalized the Department's

dependence on OCO funding has become. Going forward, the Department and the Congress both must be prepared for a world where this must change.

Related to the budget request, several issues have caught our subcommittee's attention that impact the readiness of the force. The first is F-35 sustainment. The Air Force has a stretch-goal of achieving a cost per flight hour of \$25,000 in 2025. This committee would like hear about specific initiatives you are taking as a Service to reduce sustainment costs, and to ensure that you can afford this weapon system as we continue to grow the fleet. The second issue is Aerial Refueling Tanker availability to meet Combatant Commander requirements. Given the delays in the KC-46A program, this committee is concerned with the Air Force's request to retire 10 x KC-10 tankers, and 13 x KC-135 tankers in fiscal year 2021. This concern is echoed in the recent TRANSCOM Unfunded Requirements Letter, where it lists these aircraft is the #1 unfunded priority to meet National Defense Strategy mission requirements. The third issue we would like to hear about concerns progress made in your effort to close the pilot shortfall gap.

Lastly, I would be remiss if I didn't mention the actions taken by the Department last month that disregarded Congress' constitutional authority to determine how the nation spends defense dollars. The decision to reprogram \$3.8 billion away from military readiness and modernization efforts in order to construct a barrier on the southern border of the United States goes against the priorities of the National Defense Strategy and ignores decades of precedence regarding the reprogramming process. This decision, combined with the \$3.6 billion stolen from Military Construction projects last year, is disturbing and I expect our witnesses to describe how these decisions are impacting near and long-term readiness.

With that, I now turn to our Ranking Member, Congressman Doug Lamborn of Colorado, for any opening remarks he may have.

**Opening Statement by Ranking Member Lamborn
“Air Force and Space Force Readiness Posture”**

Today, we will hear testimony regarding the readiness of the Air Force to execute the National Defense Strategy under the President's fiscal year 2021 budget request. As DoD shifts its primary focus from countering violent extremist organizations to great power competition, our subcommittee will be very interested in how the Air Force balances current readiness with modernization investments. Recent events in the Middle East are a stark reminder of the risk that comes from leaving vacuums for malign actors such as Iran to fill.

Today, we will also hear about the progress in standing up the new Space Force. This recognition of the importance of space as a warfighting domain is long overdue and will be vital to the future readiness of the joint force. My understanding is that Space Force will leverage existing support, Air Force infrastructure, and administration to the maximum extent possible. This is vital to maximizing capability and minimizing overhead.

We also eagerly await the Department of the Air Force's decision about the permanent basing location for the Space Command Headquarters. As you know, I believe that Colorado Springs is the best option, based on many factors ranging from location, civilian and military workforce, existing infrastructure and capabilities, and quality of life for service members and their families.

Now one of the most important issues in the fiscal year 2021 budget request is the proposed expansion of the Nevada Testing and Training Range. The subcommittee has already heard testimony regarding the importance of this range to support operational readiness. The proposed expansion would enable the Air Force to conduct more realistic training for fifth generation platforms and engagements using precision-guided munitions. The use of land buffers will protect training resources while preserving natural habitats. I look forward to hearing from our witnesses regarding their progress with stakeholder outreach and engagement with the Natural Resources Committee since our last update.

Issues with the fielding of two new platforms are creating challenges for the Air Force and adding strain to its already stressed budget. The first one, and this has been mentioned as well, that is the F-35 Joint Strike Fighter. While the capability it brings to the fight is a critical game changer, ongoing supply chain issues and problems with the ALIS, or is it now ODIN, data system continue to create challenges for the program. We also need more clarity about how the program will impact future Air Force budgets. As we ramp up production, the imperative of getting sustainment right takes on even more importance.

And I look forward to hearing from our witnesses regarding their perspectives about the technical data and intellectual property issues in the F-35 program. I personally don't believe that the Department should enter into a multiyear performance contract until all remaining technical data and intellectual

property issues are resolved. We would also benefit from your thoughts about how we can shift more sustainment responsibilities to the military departments.

The other program with fielding issues is the KC-46A. As of December 2019, Boeing had delivered 30 of these tankers to the Air Force. Unfortunately, ongoing issues with the remote vision system mean that these aircraft cannot yet perform operational tanker capacity. This shortfall caused the U.S. TRANSCOM Commander to request that the Department defer the retirement of 23 legacy KC-10 and KC-135 tankers in his unfunded priority list. We look forward to hearing from our witnesses about the way ahead to address these shortfalls.

One of the key readiness enablers in the Air Force is the organic industrial base. Our depots provide the capability to maintain warfighting capabilities throughout their life cycles. I am concerned that the Air Force plan to recapitalize the depots will require significant investment over many years at a time when it will continue to have a number of other major funding challenges.

And my final concern is about people. This was also mentioned by the chairman. The Air Force has a pilot shortfall of about 2,000, but chose not to fund almost 200 new pilots in the budget request. It is unclear how we will reduce this backlog without full funding.

So, thank you, Mr. Chairman, and I yield back.

Department of the Air Force

Presentation

Before the House Armed Services
Subcommittee on Readiness



FISCAL YEAR 2021 BUDGET REQUEST FOR MILITARY READINESS

Witness Statement of

Honorable Shon J. Manasco
Performing The Duties Of Under Secretary
Of The Air Force By Delegation

General Stephen W. Wilson
Vice Chief Of Staff Of The Air Force

Lieutenant General David D. Thompson
Vice Commander, U.S. Space Force

March 3, 2020

Testimony on Fiscal Year 2021 President's Budget Request for Military Readiness
House Armed Services Subcommittee on Readiness
Honorable Shon J. Manasco
General Stephen Wilson
Lieutenant General David Thompson
March 3, 2020

INTRODUCTION

Chairman Garamendi, Ranking Member Lamborn, distinguished members of this committee; thank you for the opportunity to testify on the Department of the Air Force readiness.

On behalf of the 685,000 Total Force Air and Space professionals, we want to thank you and your colleagues in the authorizing and appropriation committees. Your bipartisan leadership has returned fiscal stability and helped arrest more than a decade of readiness decline. The Department of the Air Force stands more ready to confront the complex global security landscape today than we have in years.

Yet, global demand for Air, Space, and Cyber power continue to tax our force structure, driving costly tradeoffs between meeting current operational requirements and restoring our readiness. At the same time, the high costs of sustaining legacy capabilities erodes our ability to build the future readiness our nation requires to maintain deterrence in an era of peer competition.

In order to balance near-term readiness with long-term combat capability we must make bold, hard choices – **we are**. The Department of the Air Force is fully in-line with the Secretary of Defense's goal of irreversible momentum towards implementation of the National Defense Strategy. *This year's budget is about investing in the future, not doubling down on the past.*

THREAT ENVIRONMENT

The threat environment facing the United States continues to trend in alarming ways. The rise of China and the resurgence of Russia have established Great Power competition as the chief threat to U.S. interests, security, prosperity, and influence. The military advantage we possessed for the last 30 years is now being challenged, equaled, and in some cases, surpassed.

China and Russia continue to expand their global influence, eroding once well-established security norms and increasing the risk of regional conflicts. This competition cuts across all domains, as they seek to gain technological and military superiority. Notably, space has emerged as a warfighting domain. Our adversaries recognize the military and economic advantages space gives us and are determined to negate our comparative advantage. Both China and Russia are now capable of putting our critical space-based services and capabilities at risk. Space superiority is not just a military imperative, it secures the way of life our citizens enjoy.

STRATEGY

To address this new reality—with the National Defense Strategy as our guide—the Department of the Air Force is pursuing an integrated design of ready and modernized forces that can:

Not for publication until released by the House Committee on Armed Services 1

- **Connect the Joint Force** so we can operate much more seamlessly as a Joint team.
- **Dominate Space** by defending our use of space while defeating hostile action.
- **Generate Combat Power** to blunt any attack against the United States or our allies.
- **Conduct Logistics Under Attack** to sustain high-tempo operations as long as needed.

In each of these areas, we will work with Congress and our sister services, industry, academia, allies, and partners to develop and field innovative solutions that counter aggressive strategies and impose cost on potential adversaries. Focusing on the four areas above, we will continue to provide Combatant Commanders with ready forces and critical capabilities to conduct current day operations even as we adjust to meet future peer threats.

READINESS RECOVERY

The FY21 budget builds upon the last three years of effort to restore our readiness and build the combat-capable forces necessary to deter war and protect the security of our nation.

In 2018, we received Congress' help to recover from the damaging effects of sequestration and halt declining readiness across the force, and pivoted to space warfighting. This was also the year that the National Defense Strategy and Nuclear Posture Review were released.

In 2019, we focused on readiness recovery, especially for our most sought-after units, making significant gains across multiple aircraft and spacecraft fleets and mission sets, to include Space Domain Awareness.

In 2020, we prioritized innovation and modernization, and set a vector to build the Air Force We Need to successfully execute the National Defense Strategy. Most importantly, we established the U.S. Space Force as a co-equal branch of the military.

Now, in 2021, the Department of the Air Force is applying thrust along that vector and making strategic future investments for Great Power competition. We remain committed to working with this committee and our Joint partners to not just restore readiness, but to expand our margin of superiority and build the Air and Space Forces our nation needs.

Operational Squadrons. Our recent experience shows the Department of the Air Force remains too small for the missions it is being asked to perform. *To meet the challenge of 21st Century threats, our Air and Space Forces must modernize our operational squadrons.*

As briefed last year, the Department of the Air Force remains focused on restoring operational readiness in our pacing units—those squadrons tasked to respond in the first stages of a high-end conflict. With your assistance, we bolstered readiness of these units by a full 35% between April 2018 and April 2019; however, since then, these gains have essentially plateaued as we deployed substantial combat power to the Middle East to meet expanded global requirements.

Our Active Duty pacing units remain focused on reaching our 80% readiness targets by the end of FY20; however, tight labor markets for critical maintenance manning make achieving these targets in the Air National Guard and our Air Reserve unlikely in this Fiscal Year.

End Strength. Over the last 3 years, we have grown our uniformed force by 7,820 Airmen and are on the way to an end strength of 333,700 active and 699,013 total personnel. This year, the Department of the Air Force is requesting an additional 900 active duty, 400 National Guard, and 200 Reserve positions to support F-35 operations, cyber mission defense teams, global mobility, and readiness operations.

Aircrew Task Force Update. Recruiting, developing, and retaining aviators remains a significant challenge amidst sustained international aircrew shortages—a trend expected to grow more acute over the next decade. As of the end of FY19, the Air Force remains 2,100 pilots short of the 21,000 required to execute the National Defense Strategy.

Increasing production of new aviators remains the most significant lever we have to arrest aircrew shortages. We continue to make progress toward growing pilot production to 1,480 aviators per year by FY24. This budget includes several key requests critical to hardening this expanded capacity including \$9 billion for 1.2 million flying hours across the Air Force, \$275.7 million to execute the T-7A advanced jet trainer program, and \$222.4 million to fund Contracted Adversary Air. The budget further allocates \$27.6 million to scale augmented reality training across the full Undergraduate Pilot Training enterprise under the Pilot Training Next program.

We are simultaneously addressing the retention of our seasoned aviators—a force that remains inspired to serve, but are nevertheless stressed by nearly two decades of sustained combat. Retention of these valued aviators remains at risk should operational demands continue to outpace our available force structure, shifting the burden of a high operations tempo onto our already stressed aircrew. As we continue to address these force structure challenges, we ask Congress' support for the quality of life initiatives that have a uniquely positive impact on retention, such as retention bonuses, quality education for military dependents, and expanded spouse employment opportunities.

Developing and Caring For Our People and Families. The foundation of ready air and space power remains the men and women of the Air and Space Forces. It is our sacred duty to ensure they are properly organized, trained, equipped, and courageously led when tasked to do the Nation's business. It is also our responsibility to take care of their families while they are gone and when they return. This is a moral imperative of every Air and Space Force leader. With the support of Congress, we will continue to provide them the resources and support they need.

The most important part of caring for our people and their families is providing a safe, secure environment for them to live and work. That is why the Department is working diligently to address the numerous challenges with privatized housing. We have invested considerable resources to ensure safe and habitable housing for our Airmen, Space professionals, and their families. This budget increases government manning at our bases for oversight and resident advocacy. We will also continue to address the root causes of mold or moisture issues in many of our housing units. Along with our sister services, we are preparing to release our Privatized Housing Tenants' Bill of Rights in the very near future to further empower residents.

Combating Suicides and Sexual Harassment. At a more personal level, suicide and sexual assault continue to be insidious threats to our force, and the Department of the Air Force is fully

committed to rooting out both. We are taking a leadership-driven, public-health approach— informed by data and analysis, and in partnership with academia, industry, and sister services— to find diverse solutions and perspectives. Through efforts such as the True North initiative, we will focus on building connections, detecting risk, promoting protective environments, equipping members and their families, and espousing a culture of dignity and respect where our people feel protected, valued, and supported.

Military Health Care. The Department of the Air Force is also providing direct support to the Defense Health Agency as part of the Military Health System transformation. As of October 2019, all U.S. based Military treatment facilities transferred authority, direction and control to the Defense Health Agency. The remaining overseas facilities are scheduled to transfer by the end of FY21. In conjunction with this, the Department of the Air Force has established the Air Force Medical Readiness Agency to improve warfighter deployability and ready medics for expeditionary operations. We will continue to focus on providing quality health care for service members and their families during this transition.

COST-EFFECTIVE MAINTENANCE AND LOGISTICS

The Air Force and Space Force continue to invest aggressively in Weapon System Sustainment to ensure readiness across all 118 major programs, from the newest F-35 to the 58-year-old B-52. This support ranges from Depot Maintenance, to Contractor Logistics Support, to Engineering and Technical Order production, delivering safe and reliable weapon systems required to prosecute the National Defense Strategy.

FY21 Weapon System Sustainment Budget. Weapon System Sustainment represents a quarter of our overall Operations and Maintenance budget. We recognize sustaining aging platforms while simultaneously fielding new highly technical and complex weapon systems comes at a high cost for the nation. As such, we are carefully balancing preparing for tomorrow while also meeting the demands of today. In FY21, the Total Force Weapon System Sustainment portfolio is \$17 billion, representing an \$800 million increase over last year's budget driven predominately by increasing our total aircraft inventory and sustaining legacy fighter, tanker, and bomber capabilities. We are also making strategic investments in next generation sustainment concepts such as Condition Based Maintenance to gain efficiency, increase effectiveness, and reduce costs. The FY21 budget funds 87% of Weapon System Sustainment requirements, balancing risk between competing capability, capacity, and readiness demands.

Evolving Logistics for Peer Competition. Since the end of World War II, the United States has relied on established, well-supplied, and heavily-defended bases. Future battlefields will be too dangerous, dynamic, and dispersed to allow us to fight this way. Resilient and agile logistics remain a key modernization priority for the Air Force. The FY21 budget increases funding across multiple portfolios and establishes a Logistics Under Attack cross-functional team to identify capability needs to retain freedom of movement during multi-domain operations and provide persistent logistics in the face of a potentially daunting adversary.

MODERNIZATION

Nuclear Forces. The on-going evolution and fielding of other countries' strategic nuclear capabilities, including hypersonic weapons, continue to challenge U.S. and allied security. A strong, reliable, nuclear triad affords our nation the ability to hold adversary targets at risk, in a way critical to this era of great power competition. The Department of the Air Force owns two-thirds of the nuclear triad, and 75% of the nuclear command, control, and communication capability. Previous deferrals have forced the Department of Defense to modernize and recapitalize the triad simultaneously, and your continued support is critical to ensuring the U.S. maintains a credible and effective nuclear deterrent.

Advanced Battle Management family of Systems. To fully harness the power of the Joint Force, the Department of the Air Force is investing in Joint All-Domain Command and Control, powered by the Advanced Battle Management System (ABMS) and digital modernization. ABMS moves from a platform-centric approach to warfare, to a network-centric approach that will connect the right sensor to the right node to the right shooter, regardless of domain, to achieve rapid decisions and effects. ABMS is building the combat internet of the military. Our Space Force and Air Force budgets include funding to develop the network, connectivity, and infrastructure for this critical capability while working closely with Joint and interagency partners to ensure that our efforts fuse into a holistic framework.

Acquisition Reforms. The Department of the Air Force continues to leverage the authorities provided by Section 804 of the FY16 National Defense Authorization Act and utilize Middle Tier Acquisition to accelerate experimentation and speed capability to the warfighter. Using rapid prototyping and delegated milestone decision authorities, we have been able to execute our programs faster, and saved over 100 years of planned schedule, to date.

Likewise, in space, we have streamlined documentation, reviews, and flattened access to decision authorities, saving more than 27 years across 17 programs. Acquisition initiatives such as "Space and Missile Systems Center 2.0" – an organizational restructure that eliminated three layers of bureaucracy to accelerate decision making and ensures programs are viewed from an enterprise perspective – represent the largest transformation in the Space and Missile Center's 65-year history and reached full operational capability one month ahead of plan.

DEFENDING OUR FREEDOM OF ACTION IN SPACE

Space Operations. If we lose in Space, we lose. The standup of the U.S. Space Force remains our top policy priority, but we must not lose focus on preparing and presenting space forces ready to win in today's threat environment. In support of space operations, the Department of the Air Force's budget submission includes increased investment in support of space capabilities that contribute to the capability of the Joint Force. This year's budget realigns \$15.4 billion to a separate space budget to ensure we can protect, defend, and, when necessary, fight in, through, and from the space domain. *We are using the establishment of the U.S. Space Force to take a clean sheet approach and design a lean, agile, 21st century military service.*

Space Cadre Standup. To build readiness for Space operations in an era of peer-competition, the National Defense Strategy Commission recommends developing “a space cadre that ensures an enduring focus on space capabilities.” The FY21 budget anticipates 6,434 military authorizations into the Space Force to form the initial cadre of our newest Service. Planners are actively developing specific processes and conditions that must be met before beginning the transfer process with Air Force members transitioning first with Army and Navy members following at a later date. These forces are supported by the Air National Guard Bureau and Air Force Reserve Command, both of which remain integral in the fields of missile warning, military satellite communications, global positioning, and space electronic warfare.

The longer-term goal is to develop a cadre of more than 12,000 space professionals who will form the core of our Space Force by the end of FY25. To grow and season the burgeoning cadre of space operators, we will continue to participate in and sponsor advanced, coalition-integrated wargames such as SPACE FLAG, the Schriever Wargame, and Joint Task Force - Space Defense’s Sprint Advanced Concept Training. The concepts developed during these integrated wargames translate into groundbreaking tactics we can employ today and enhance for tomorrow.

Space Domain Awareness. In recognition that domain awareness is foundational for effective operations, the Space Situational Awareness mission was renamed to Space Domain Awareness in late 2019 to focus on pivoting the Space community’s cultural mindset toward protection and defense of our critical space assets. The Space Force continues to build strong partnerships to revolutionize our ability to protect our interests in Space and to assign proactive attribution to our adversaries for any hostile actions they may commit in Space. These partners include the National Reconnaissance Office on the SILENTBARKER program; the Department of Commerce to transition the Space Traffic Management mission from the Department of Defense in accordance with Space Policy Directive 3 and congressional direction; multiple coalition allies for data sharing, sensing capacity and cooperative operations; and the burgeoning commercial marketplace for Space Domain Awareness services.

Underpinning all this is the implicit understanding that mastery of data is fundamental to maintaining dominance in the Space Domain. To this end, the Space Force has led the build-out of a Unified Data Library capability that is revolutionizing how we aggregate, access, share, and exploit data to enable any Space related operation. This same Unified Data Library capability is also being aligned with the Advanced Battle Management System in support of the Joint All Domain Command and Control effort to ensure that **all** war fighting domains have real-time, unfettered access to the data they need at all security levels.

Next Generation Overhead Persistent Infrared. The growing terrestrial and space-based threat to our homeland and our assets in space demands a technologically advanced, defensible system capable of detecting threats and surviving in a contested environment. The Next Generation Overhead Persistent Infrared family of satellites is that system. With your bipartisan support, we have been able to keep the acquisition of these satellites on track, and thanks to the Section 804 authorities that you have granted us, we will be able to field this game-changing capability 3.5 years faster than the historical average. Together, we are helping to build a system that will keep America safe for the next decade and beyond.

Assured Access to Space. The National Security Space Launch program, with an unprecedented record of 78 consecutive successful launches, is fundamental to sustaining U.S. dominance in space for the Joint Force. The Space and Missile Systems Center’s “Phase 2 Launch Service Procurement” contract will provide continued mission success, assured access to space, and flexibility in the contested space domain. Additionally, the U.S. Space Force’s Range of the Future initiative will provide adaptive instrumentation, infrastructure, and services to enable Autonomous Flight Safety System operations while fostering partnerships. Its end state envisions globally competitive ranges with the capacity to support the ever-increasing tempo of launch and test operations and ensure affordable space access.

REFORMING FOR THE FUTURE

Reform is much broader than cost savings. The Department of the Air Force is changing the way we do business to ensure the time and the taxpayer dollars entrusted to us are invested in efforts that directly support the priorities of the National Defense Strategy. To that end, last year we conducted a two-month long review of all portfolios, budget accounts, and associated manpower authorizations to identify which programs could be revector to medium and long-term alignment with the National Defense Strategy.

The National Defense Strategy is clear about the growing threats to the United States and our allies. The Department of the Air Force is pursuing innovative air and space capabilities to connect the Joint force to ensure victory into 2030 and beyond. This means making significant investments in new programs and reforming programs and processes that do not align with the National Defense Strategy, but we are committed to meeting these challenges.

On behalf of all Airmen and Space Professionals, active, guard, reserve, and civilian, thank you for your leadership and partnership as we build the Air and Space Force we need both today and into the future.

SHON J. MANASCO

Shon J. Manasco is performing duties as the Under Secretary of the Air Force. He is responsible for the affairs of the Department of the Air Force, including the organizing, training, equipping and providing for the welfare of approximately 685,000 active duty, Guard, Reserve and civilian Airmen and their families worldwide. He oversees the Air Force's annual budget of over \$205 billion and directs strategy and policy development, risk management, weapons acquisition, technology investments and human resource management across a global enterprise.

Performing the duties as the Under Secretary, he is responsible for implementing decisions of the President and Congress and fulfilling Combatant Commanders' current and future operational requirements.

From November 2017 to December 2019, Mr. Manasco served as the Assistant Secretary of the Air Force for Manpower and Reserve Affairs, the Pentagon, Arlington, Virginia. Appointed by President Donald J. Trump and confirmed by the U.S. Senate in this capacity, he was responsible for the supervision of manpower, military and civilian personnel, Reserve component affairs and readiness support for the Department of the Air Force.

Prior to November 2017, Mr. Manasco was the co-founder of a product design and engineering startup after having served as Executive Vice President at one of America's leading financial services companies.

Throughout his career in the private sector, Mr. Manasco has held executive leadership roles in the retail and investment banking, insurance and energy industries. He has led global teams across functional areas that include technology, digital design, cyber-security, corporate development, sales and service and human resources.

Mr. Manasco is a U.S. Army veteran who held command and staff roles at Fort Bragg, North Carolina, before becoming the Director of Finance for the Office of Military Support, Washington, D.C. While in uniform, he held numerous staff and leadership positions supporting worldwide operational activities for joint special operations forces.

Mr. Manasco holds a Bachelor of Science degree from the U.S. Military Academy at West Point and a Master of Business Administration degree from Southern Methodist University.

EDUCATION

1992 Bachelor of Science, Systems Engineering and Management, U.S. Military Academy, West Point, N.Y.

2000 Master of Business Administration, Finance, Southern Methodist University, Dallas

CAREER CHRONOLOGY

1993, Chief Disbursing Officer, 126th Finance Battalion, Fort Bragg, N.C.

1994- 1995, Commander, B Detachment , U.S. Army Special Operations Command, Fort Bragg, N.C.

1995- 1997, Finance Officer, Office of Military Support, Washington, D.C.

1997- 2008, Senior Vice President, Bank of America Corporation, Dallas; Charlotte, N.C., and New York

2008-2010, Senior Vice President, Chief Human Resources and Shared Services Officer, Constellation Energy, Baltimore, Md.

2011, Executive Vice President, Chief Human Resources Officer, United Services Automobile Association, San Antonio

2012-2013, Executive Vice President, Chief Administrative Officer, United Services Automobile Association, San Antonio

2014-2015, Executive Vice President, Member Experience, Sales and Service, United Services Automobile Association, San Antonio

2015-2016, Chief Administrative Officer, United Services Automobile Association, San Antonio

2017, Co-Founder, Innovative Breakthroughs, LLC, San Antonio
2017-2019 Assistant Secretary of the Air Force for Manpower and Reserve Affairs, the Pentagon,
Arlington, Va.
2019-present, Performing the duties of Under Secretary of the Air Force, the Pentagon, Arlington, Va.

AWARDS AND HONORS

Defense Meritorious Service Medal
Army Commendation Medal with oak leaf cluster
Army Achievement Medal with two oak leaf clusters
Army Superior Unit Award
National Defense Service Medal
Armed Forces Expeditionary Medal
Humanitarian Service Medal
Senior Parachutist Badge
Air Assault Badge
Army Lapel Button
Emmett J. Bean Award Recipient

MILITARY EDUCATION

DoD High Risk Survival Course (Survival, Evasion, Resistance and Escape)
Finance and Accounting Officer Advanced Course
Planning / Programming / Budgeting System Course
Jumpmaster Course
Airborne Course
Finance Officer Basic Course
Master Fitness Training Course

PROFESSIONAL MEMBERSHIPS AND ASSOCIATIONS

Haven for Hope (past trustee), San Antonio
McNay Art Museum (past trustee), San Antonio

(Current as of January 2020)

GENERAL STEPHEN W. "SEVE" WILSON

Gen. Stephen W. "Seve" Wilson is Vice Chief of Staff of the U.S. Air Force, Washington, D.C. As Vice Chief, he presides over the Air Staff and serves as a member of the Joint Chiefs of Staff Requirements Oversight Council and Deputy Advisory Working Group. He assists the Chief of Staff with organizing, training, and equipping of 660,000 active-duty, Guard, Reserve and civilian forces serving in the United States and overseas.

Gen. Wilson received his commission from Texas A&M University in 1981. He's had multiple flying tours, and led bomber; intelligence, surveillance and reconnaissance; mobility; aeromedical evacuation; and airborne command and control operations supporting Iraqi Freedom, Enduring Freedom and Combined Joint Task Force-Horn of Africa. Gen. Wilson has also held numerous command positions, including the Joint Functional Component Commander for Global Strike and Air Force Global Strike Command. Gen. Wilson is a command pilot with more than 4,500 flying hours and 680 combat hours. Prior to his current assignment, the general was Deputy Commander, U.S. Strategic Command, Offutt AFB, Nebraska.

EDUCATION

1981 Bachelor of Science, Aerospace Engineering, Texas A&M University, College Station
 1985 Squadron Officer School, Maxwell AFB, Ala.
 1989 Master of Science degree, Engineering Management, South Dakota School of Mines & Technology
 1993 Air Command and Staff College, Maxwell AFB, Ala.
 1997 U.S. Air Force Weapons School, Nellis AFB, Nev.
 2000 Master's degree in strategic studies, Air War College, Maxwell AFB, Ala.
 2005 Leadership for a Democratic Society, Federal Executive Institute, Charlottesville, Va.
 2007 Joint Force Air Component Commander Course, Maxwell AFB, Ala.
 2009 Joint Flag Officer Warfighting Course, Maxwell AFB, Ala.
 2010 Leadership Decision Making Program, John F. Kennedy School of Government, Harvard University, Cambridge, Mass.
 2013 Pinnacle Course, National Defense University, Fort Lesley J. McNair, Washington, D.C.

ASSIGNMENTS

1. June 1981 - May 1982, student, undergraduate pilot training, Laughlin AFB, Texas
2. May 1982 - September 1986, T-38 Instructor Pilot, evaluator pilot and flight commander, 86th Flying Training Squadron, Laughlin AFB, Texas
3. September 1986 - May 1987, B-1 Student, 338th Combat Training Squadron, Dyess AFB, Texas
4. May 1987 - July 1991, B-1 Instructor Pilot and Flight Commander, 77th Bomb Squadron, Ellsworth AFB, S.D.
5. July 1991 - July 1992, Chief of Weapons and Tactics, 28th Operations Support Squadron, Ellsworth AFB, S.D.
6. July 1992 - July 1993, Student, Air Command and Staff College, Maxwell AFB, Ala.
7. July 1993 - September 1995, Joint Staff Officer, Doctrine, Concepts and Initiatives Division, Plans and Policy (J5), Headquarters U.S. European Command, Stuttgart, Germany
8. September 1995 - June 1997, Chief of Safety, 28th Bomb Wing, later, operations officer, 37th Bomb Squadron, Ellsworth AFB, S.D.
9. June 1997 - June 1999, Commander, B-1 Division, and Instructor Pilot, Weapons Instructor Course, USAF Weapons School, Ellsworth AFB, S.D.
10. August 1999 - June 2000, Student, Air War College, Maxwell AFB, Ala.
11. June 2000 - June 2002, Deputy Commander, 366th Operations Group, Mountain Home AFB, Idaho

12. July 2002 - March 2004, Commander, 608th Air Operations Group, Barksdale AFB, La.
13. March 2004 - June 2006, Commander, 14th Flying Training Wing, Columbus AFB, Miss.
14. June 2006 - July 2007, Deputy Director of Air, Space and Information Operations (A2/3), Headquarters Air Education and Training Command, Randolph AFB, Texas
15. July 2007 - July 2009, Deputy Commander, Canadian North American Aerospace Defense Region, Winnipeg, Manitoba, Canada
16. July 2009 - July 2010, Commander, 379th Air Expeditionary Wing, Southwest Asia
17. July 2010 - June 2011, Director for Joint Integration, Directorate of Operational Capability Requirements, Deputy Chief of Staff for Operations, Plans and Requirements, Headquarters U.S. Air Force, the Pentagon, Washington, D.C.
18. June 2011 - October 2013, Commander, Eighth Air Force (Air Forces Strategic), Barksdale AFB, La., and Joint Functional Component Commander for Global Strike, U.S. Strategic Command, Offutt AFB, Neb.
19. October 2013 - July 2015, Commander, Air Force Global Strike Command, Barksdale AFB, La.
20. July 2015 - July 2016, Deputy Commander, U.S. Strategic Command, Offutt AFB, Neb.
21. July 2016 - present, Vice Chief of Staff of the U.S. Air Force, the Pentagon, Washington, D.C.

SUMMARY OF JOINT ASSIGNMENTS

1. July 1993 - September 1995, Joint Staff officer, Doctrine, Concepts and Initiatives Division, Plans and Policy (J5), Headquarters U.S. European Command, Stuttgart, Germany, as a major
2. July 2007 - July 2009, Deputy Commander, Canadian North American Aerospace Defense Region, Winnipeg, Manitoba, Canada, as a colonel and brigadier general
3. June 2011 - October 2013, Joint Functional Component Commander for Global Strike, U.S. Strategic Command, Offutt AFB, Neb., as a brigadier general and major general
4. July 2015 - July 2016, Deputy Commander, U.S. Strategic Command, Offutt, AFB, Neb., as a lieutenant general

FLIGHT INFORMATION

Rating: Command pilot
 Flight hours: More than 4,600, and 680 combat hours
 Aircraft flown: T-37, T-38, B-1 and B-52

MAJOR AWARDS AND DECORATIONS

Distinguished Service Medal with oak leaf cluster
 Defense Superior Service Medal
 Legion of Merit with oak leaf cluster
 Bronze Star Medal with oak leaf cluster
 Defense Meritorious Service Medal
 Meritorious Service Medal with four oak leaf clusters
 Air Medal with oak leaf cluster
 Aerial Achievement Medal
 Air Force Commendation Medal with oak leaf cluster

EFFECTIVE DATES OF PROMOTION

Second Lieutenant June 2, 1981
 First Lieutenant June 2, 1983
 Captain June 2, 1985
 Major June 1, 1993
 Lieutenant Colonel Jan. 1, 1997
 Colonel June 1, 2002
 Brigadier General Dec. 3, 2007
 Major General Sept. 1, 2011
 Lieutenant General Oct. 23, 2013
 General July 22, 2016

LIEUTENANT GENERAL DAVID D. THOMPSON

Lt. Gen. David D. Thompson is Vice Commander, Headquarters United States Space Force. He is responsible to the Chief of Space Operations for the U.S. Space Force in carrying out space missions and integrating space policy, guidance, coordination and synchronization of space-related activities and issue resolution for the Department of the Air Force.

U.S. Space Force organizes, trains, equips and maintains mission-ready space forces and provides missile warning, positioning, navigation and timing and communications for North American Aerospace Defense Command, U.S. Strategic Command, U.S. Space Command and the other functional and geographic combatant commands.

Lt. Gen. Thompson was commissioned in 1985 as a graduate of the U.S. Air Force Academy. He is a career space officer with assignments in operations, research and development, acquisition and academia. He has commanded operational space units at the squadron, group and wing levels. The general is also an Olmsted Scholar, graduate of the Senior Acquisition Course and a Level III- Certified Program Manager. Prior to his assignment as Vice Commander, U.S. Space Force, Lt. Gen. Thompson was the Vice Commander, U.S. Air Force Space Command.

EDUCATION

1985 Bachelor of Science, Astronautical Engineering, U.S. Air Force Academy, Colorado Springs, Colo.
 1989 Master of Science, Aeronautics and Astronautics, Purdue University, West Lafayette, Ind.
 1990 Squadron Officer School, Maxwell Air Force Base, Ala. 1998 Air Command and Staff College, Maxwell AFB, Ala.
 2000 Advanced Program Managers Course, Defense Systems Management College, Fort Belvoir, Va.
 2001 Air War College, Maxwell AFB, Ala., by seminar
 2005 Master of Science, National Security Industrial Policy, Industrial College of the Armed Forces, Fort Lesley J. McNair, Washington, D.C.

ASSIGNMENTS

July 1985 - May 1988, Experimental Rocket Propulsion Engineer and Chief, Motor and Component Operations Section, Air Force Rocket Propulsion Laboratory, Edwards Air Force Base, Calif.
 June 1988 - July 1989, Graduate Student, Purdue University, West Lafayette, Ind.
 August 1989 - October 1992, Instructor of Astronautics, Assistant Professor and Executive Officer, Department of Astronautics, U.S. Air Force Academy, Colorado Springs, Colo.
 October 1992 - May 1993, Student, Defense Language Institute, Presidio of Monterey, Calif.
 June 1993 - July 1995, Olmsted Scholar, Johannes Kepler University, Linz, Austria
 August 1995- July 1997, Program Manager, Advanced MILSATCOM Program, MILSATCOM Joint Program Office, Space and Missile Systems Center, Los Angeles AFB, Calif.
 August 1997 - June 1998, Student, Air Command and Staff College, Maxwell AFB, Ala.
 July 1998 - August 2000, Spacelift Requirements Officer and Chief, Spacelift Vehicle Requirements Branch, Headquarters Air Force Space Command, Peterson AFB, Colorado Springs, Colo.
 September 2000 - April 2002, Deputy Director, Commander's Action Group, Headquarters Air Force Space Command, Peterson AFB, Colo.
 June 2002 - July 2004, Operations Officer and Commander, 2nd Space Launch Squadron, Vandenberg AFB, Calif.
 August 2004 - June 2005, Student, Industrial College of the Armed Forces, Fort Lesley J. McNair, Washington, D.C.
 June 2005 - July 2007, Commander, 45th Operations Group, Cape Canaveral Air Force Station, Fla.
 August 2007 - May 2009, Commander, Aerospace Data Facility- Colorado, Buckley AFB, Colo.
 June 2009 - June 2010, Director of Space Forces, U.S. Air Forces Central, Southwest Asia
 July 2010 - May 2011, Vice Commander, U.S. Air Force Warfare Center, Nellis AFB, Nev.
 May 2011 - March 2012, Director of Air, Space and Cyberspace Operations, Air Force Space Command, Peterson AFB, Colo.

March 2012 - January 2014, Deputy Director of Global Operations, U.S. Strategic Command, Offutt AFB, Neb.

January 2014 - June 2015, Director of Plans and Policy, U.S. Strategic Command, Offutt AFB, Neb.

July 2015 - July 2017, Vice Commander, Air Force Space Command, Peterson AFB, Colo.

July 2017 - April 2018, Special Assistant to the Commander, Air Force Space Command, Peterson AFB, Colo.

April 2018 - December 2019, Vice Commander, Air Force Space Command, Washington, D.C.

December 2019 - present, Vice Commander, Headquarters U.S. Space Force, Washington, D.C.

SUMMARY OF JOINT ASSIGNMENTS

August 2007 - May 2009, Commander, Aerospace Data Facility - Colorado, Buckley AFB, Colo., as a colonel

March 2012 - January 2014, Deputy Director of Global Operations (DJ3), U.S. Strategic Command, Offutt AFB, Neb., as a brigadier general and major general

January 2014 - July 2015, Director of Plans and Policy (JS), U.S. Strategic Command, Offutt AFB, Neb., as a major general

MAJOR AWARDS AND DECORATIONS

Defense Superior Service Medal with oak leaf cluster

Legion of Merit

Bronze Star Medal

Defense Meritorious Service Medal

Meritorious Service Medal with two oak leaf clusters

Air Force Commendation Medal

Air Force Achievement Medal with two oak leaf clusters

BADGES

Command Space Wings

Parachute Badge

Master Acquisition Badge

Missile Maintenance Badge

EFFECTIVE DATES OF PROMOTION

Second Lieutenant May 29, 1985

First Lieutenant May 29, 1987

Captain May 29, 1989

Major Aug. 1, 1996

Lieutenant Colonel May 1, 2000

Colonel Aug. 1, 2004

Brigadier General June 18, 2010

Major General Oct. 10, 2013

Lieutenant General April 4, 2018

(Current as of February 2020)

**WITNESS RESPONSES TO QUESTIONS ASKED DURING
THE HEARING**

MARCH 3, 2020

RESPONSE TO QUESTION SUBMITTED BY MR. SCOTT

Mr. MANASCO. The Air Force allocates Weapon Systems Sustainment Enduring OCO funding proportionally across weapon systems supporting contingency operations; in FY21 enduring OCO accounts for \$2.1B across the department. Additionally, OSD directed the Department of the Air Force to transfer an additional \$8.9B of Base requirements to OCO as part of the FY21PB submission, to comply with the Base/OCO topline split in the Bipartisan Budget Act. [See page 17.]

QUESTIONS SUBMITTED BY MEMBERS POST HEARING

MARCH 3, 2020

QUESTIONS SUBMITTED BY MR. GARAMENDI

Mr. GARAMENDI. Despite a Bipartisan Budget Agreement providing planning certainty to the services, the Air Force appears to continue relying on OCO to fund base activities. The FY2021 budget request reflects this by putting nearly \$8.8 billion associated with Weapon System Sustainment in the OCO request. With the Bipartisan Budget Act expiring at the end of FY2021, can you describe how the Air Force will put discipline back into the budget process to program enduring requirements in the base request?

Mr. MANASCO. \$8.86 billion was originally programmed as a base budget requirement, but was later moved to OCO as part of a DOD-wide decision in order to comply with the Base/OCO topline split in the Bipartisan Budget Act. The Department of the Air Force programs Weapons System Sustainment within the same disciplined process as the rest of the base budget requirements, and will continue to work within DOD guidance to build our FY22 request.

Mr. GARAMENDI. The FY21 budget request would result in the retirement of 10 KC-10 and 13 KC-135 aircraft. U.S. Transportation Command has consistently expressed concerns about the capacity of the tanker fleet to meet operational demands, and included the restoration of these 23 aircraft in their Unfunded Priorities List. Can you please reconcile the Air Force budget decision to retire these aircraft given the warfighter requirement and the programmatic delays in the KC-46 program? What is Boeing's plan to resolve the performance issues with the Remote Visual System and when can we anticipate that the issue will be resolved?

Mr. MANASCO. Our decision to retire legacy tankers was one of the two hardest decisions we made at the endgame of our service budget deliberations. The situation with the tanker portfolio is representative of the classic tension between a combatant commander that's looking at a two-year problem to solve, and a service trying to build a force that wins in 2030. That tension has always been there, and always will be there. We looked across the portfolio of tankers, and took into account the congressional mandate that we never go below 479. The divestiture numbers we're asking for in the case of KC-135 represents 3 percent of the overall KC-135 fleet. In order to mitigate the risk to the combatant commander, we committed to him and to the Secretary of Defense, that if we go into a high-end contingency, we will put every KC-46 we have into the fight. The risk and mitigation will be in place until the KC-46 comes online, which we expect to be in FY23 to FY24. We are still negotiating with Boeing on the technical scope of the remote vision system deficiency resolution. This is a hardware problem requiring a hardware fix. We are targeting the FY23 to FY24 timeframe to have the fix in place. We will provide updates as we know more.

Mr. GARAMENDI. In order to address retention issues, the Air Force has been looking at the criteria by which they make basing decisions with an eye towards including portability of professional licensure for military spouses and the quality of the public education system around installations, can you tell us more about how the Air Force plans to implement these additional criteria?

Mr. MANASCO. This Support of Military Families initiative is integral to our retention, recruitment and readiness goals. Starting in Spring of 2020, the Air Force plans to consider licensure portability and public education quality in our basing decisions. The Air Force recently shared our evaluation criteria and methodology with Congress, state and local communities. The public education framework will evaluate public school districts' educational aspects and ability to support transferring military children in Pre-kindergarten through 12th Grade near Air Force installations. The licensure portability framework will be used to assess state laws, governor's executive orders, and state Supreme Court or bar association rules and the ability for an area to accommodate licenses earned from other locations.

Mr. GARAMENDI. Can you please define the impact that border wall reprogramming actions had and will have on Air Force readiness? What is your plan for projects that were deferred by last year's 10 U.S.C. 2808 notification, seeing as how you will not receive a backfill for these projects?

Mr. MANASCO. Thus far, deferral of projects for the border wall has had minimal impact on readiness. A majority of projects deferred were MILCON recapitalization,

replacing existing infrastructure that is exceeding its design life. These facilities will, in the interim, continue to be sustained with AF O&M funds to prevent any immediate readiness impacts. All deferred projects remain important to the AF. Going forward, we will work with OSD regarding how best to address the deferred projects.

Mr. GARAMENDI. You under-executed flight hours in 2018 and 2019, resulting in a substantial depletion of your Working Capital Fund. How are you doing with FY2020 flight hour execution? Is the Working Capital Fund issue getting worse? Will the extra Flight Hour Program funds in your FY2021 request solve the issue, or can we expect to see another reprogramming request this year?

General WILSON. The Air Force has executed \$2.45B or 31.1% of its FY20 Enacted FHP budget (\$7.9B) through the end of January 2020. We are slightly under execution goals, but we typically see increased flying hours in the spring. Air Force Working Capital Fund (AFWCF) currently remains an issue. The Air Force plans to maintain the solvency of the AFWCF in FY20 through a number of actions, which will require a cash infusion. Ultimately, we will restore the health of the AFWCF through our FY21 PB request in two ways: 1) Our FY21 Flying Hour Program (FHP) request (in terms of hours) was reduced to essentially the FY18 & FY19 actual hours flown, which will alleviate the likelihood of any underexecution, and 2) Our FY21 FHP request includes substantial WCF rate increases to enable AFWCF revenue recovery and alleviate future year solvency concerns.

Mr. GARAMENDI. You are not meeting your own readiness standards, yet the Air Force only funds the Weapon Systems Sustainment accounts at 87% of the requirement. How will you generate more readiness while not fully funding these accounts? Are you funding to maximum executable? What are your barriers to increasing maximum executable in these accounts?

General WILSON. 87% funding enables the Air Force to sustain targeted readiness gains through depot-level operations. Other "levers of readiness" such as the flying hour program contribute to building AF readiness. To generate more readiness with available funds, the Air Force is pursuing key initiatives such as predictive maintenance and the Strategic Sustainment Framework. The Air Force does not fund Weapon Systems Sustainment at a maximum executable level. Currently, 94% is the maximum level, but could incrementally increase 1% each year to -97% through responsible and consistent funding growth. Barriers to increasing to maximum executable include the need to balance near-term risk between readiness, future capability, and modernization within top line/resources.

Mr. GARAMENDI. In your view, can the proposed expansion of the Nevada Training and Testing Range be carried out in a manner that both enhances military readiness and is compatible with stewardship of natural and cultural resources?

General WILSON. Absolutely. The Air Force has extensive environmental and cultural resources programs for the Nevada Test and Training Range (NTTR). We will not only continue but expand these programs. The Air Force spends, on average, over \$3.5M annually on the NTTR environmental and cultural management activities. The proposed expansion meets AF needs without adversely impacting the treasure that is the Desert National Wildlife Range.

Mr. GARAMENDI. The Air Force proposes a huge expansion of the footprint of the Nevada Training and Testing Range? While there is a clear readiness argument for the expansion, there are also significant concerns from many sectors. Can the expansions be phased in to allow time to work through the issues with other stakeholders?

General WILSON. The NTTR is currently over capacity and without an expansion will fail to meet military training requirements. We cannot train like we fight or use the southern range for large training events, such as Red Flag, with advanced weapons systems. The Air Force has engaged extensively with other stakeholders and will continue to do so moving forward.

Mr. GARAMENDI. Given your service's budget priorities, what is your target F-35 cost per flight hour (CPFH) that allows you to afford this aircraft? When do you need to achieve this target CPFH to validate your programming assumptions across the FYDP? What is your service doing to reduce F-35 sustainment costs to help achieve the target CPFH?

General WILSON. The Air Force established the following F-35 CPFH goals for 2025: Threshold \$29K CPFH and Objective \$25K CPFH.

The Air Force is assisting the Joint Program Office in sustainment contract negotiations to reduce demand for parts and labor to drive down costs.

Mr. GARAMENDI. There has been some discussion about pursuing a long-term Performance Based Logistics contract for the sustainment of the F-35. Can you provide your views on this proposal, especially in light of any concerns you may have given current performance of F-35 sustainment and questions regarding intellectual prop-

erty and data rights? Are you comfortable that you understand enough about how F-35 sustainment costs will impact the Air Force, and do you have any thoughts about how we can transition more of the responsibility for F-35 sustainment to the services?

General WILSON. The Air Force doesn't believe we have sufficient data to make an informed decision on a Performance Based Logistics (PBL) contract at this time. We continue to work with OSD and the Joint Program Office to gain the necessary data that will provide the analytical rigor necessary to support any potential future OSD decision regarding a PBL approach.

Working closely with the Joint Program Office, the Air Force is exploring areas where future organic (vice industry) management may be more viable/cost effective.

Mr. GARAMENDI. What are your top three priorities in standing up the Space Force? What are the opportunities and challenges?

General THOMPSON.

- Space missions are vital to national security and our space forces play an integral role in all-domain operations as part of the Joint Force today. Our first priority is ensuring the execution of space operations globally continues without degradation due to transition activities.
- We must develop mission focused capabilities. The Space Force is being stood up to organize, train and equip to provide freedom of operation for the United States in, from, and to space and to provide prompt and sustained space operations in a distinct warfighting domain; we must develop space warfighting doctrine, education, training, and space tactics, techniques, and procedures.
- The Space Force will be lean, agile and mission-focused to minimize cost and overhead. We are taking a "clean sheet" approach to infuse innovation and improvement, streamlining processes to reduce costs, save money, and appropriately steward Department resources.

Mr. GARAMENDI. How do you ensure that the Space Force can foster a culture that provides the skills and focus necessary to increase readiness for space as a warfighting domain and gives us the tools and framework to deter conflict in space?

General THOMPSON. Fostering a culture starts with domain-specific training and education and developing necessary warfighting skills through exercise and doctrine development. We have overhauled our initial skills training for officer and enlisted space operators, greatly expanding undergraduate space training, making it more relevant for the warfighting domain. We have implemented and expanded our advanced training for space operations and intelligence to include building Space Flag, our premier training exercise. We have also added foreign partners to the exercise. Coupled with well-established events like the Schriever Wargame, we believe that the best deterrence is a well-trained force ready for any contingency. We intend to establish several Space Force Centers, or Center equivalents, to execute space-unique functions. They will be co-located with Air Force counterpart Centers to the maximum extent practicable in order to leverage existing infrastructure and resources. Space Force Centers will be established within existing DOD resources, with modest initial manpower increases included in the President's Budget PB request for FY 2021.

Mr. GARAMENDI. How do you intend to grow the space cadre of professionals? Will you require non-voluntary assignment from the other services? Can you talk to what operations support and sustainment functions the Air Force will continue to provide the Space Force so that we minimize unnecessary duplication?

General THOMPSON. Initially, the Space Force will be a mission-focused force comprised of uniformed military personnel and Department of the Air Force civilians organized, trained and equipped to provide prompt and sustained space operations. The new Armed Force will create appropriate career tracks across relevant specialties, including space-specific operations, intelligence, engineering, acquisition, science, and cyber. Our military is an all-volunteer force. Our goal is to transfer personnel on a voluntary basis as the missions, units and functions they perform are transferred to the Space Force. The Space Force will leverage the Department of the Air Force for more than 80% of its enabling functions like base support, real property management, IT and physical security.

Mr. GARAMENDI. How many civilians do you project the Space Force will need, what functions do you anticipate they will perform, and what is your plan to attract the best possible talent for this workforce? Will there be a new category for Space Force civilians, or will they serve within the broader Department of the Air Force program? Are you confident that you have the authorities needed?

General THOMPSON. All civilian employees will remain Department of the Air Force civilians whether they serve the Air Force or the Space Force. A new category will not be established. The civilian workforce plays a critical part in executing space operations today, and their role will continue to be critical as the Space Force

grows and expands its mission set. Our FY21 budget request includes 3,545 civilian authorizations, with an expected growth to 4,247 across the FYDP. The Space Force is exploring use of all available alternate hiring authorities provided in current legislation. For example, expansion of the DOD Civilian Acquisition Workforce Personnel Demonstration Project (AcqDemo) to Space Force civilians could enable advantages including a sped up hiring process, the potential for faster advancement than the standard federal promotion process, flexibility to adequately compensate employees, and expansion of training and development opportunities. In total, this promotes a culture where the contributions of civilian employees are more clearly recognized and rewarded.

QUESTION SUBMITTED BY MR. LAMBORN

Mr. LAMBORN. My understanding is that the Joint All Domain Command and Control (JADC2) program is one of the highest priorities for the Department of Defense. Can you tell the subcommittee why this program is so important to the joint fight?

General WILSON. As the technology that enables warfighting and assists warfighters continues to become more sophisticated, the Air Force, the other Services, and our partners must evolve to develop more agile tools to support the warfighter. We know our adversaries are becoming more sophisticated and adapting their technology for future conflict; the National Defense Strategy of 2018 lists this as a key factor of the complex global security environment the United States is entering. We cannot afford to remain reliant on the status quo; we will adapt our force for the future fight. Joint All Domain Command and Control, or JADC2, is an initiative intended to give warfighters decision advantage. Decision advantage is the ability to execute decision-making processes faster than an adversary. Ultimately, in conflict, this will allow commanders to prosecute the dynamic targeting process quickly. The goal is to give warfighters the ability to carry out thousands of dynamic targets in hundreds, if not tens, of hours. This is a dramatic improvement over how we, both as an Air Force and a Joint Force, operate today. JADC2 proposes a few key attributes to gain and maintain decision advantage:

1. Sensing grid—Interconnected sensors that can utilize artificial intelligence/machine learning to process information at the edge. It enables us to provide warfighters with actionable intelligence and timely situational awareness.
2. Robust, resilient, and redundant communications network—Assures critical communications in environments where adversaries attempt to deny or disrupt traditional means of communication.
3. Distributed battle management—Empowers commanders to make decisions based on guidance from leadership, with knowledge of local conditions.
4. Effects convergence—Provides warfighters the ability to converge effects from multiple domains, in synchronized time and space, on any target. This attribute of JADC2 not only speeds up the kill-chain process, but also increases the potency of the effects available to any commander, any time.

QUESTIONS SUBMITTED BY MR. SCOTT

Mr. SCOTT. The mission capable rates of our aircraft have swung back and forth like a pendulum since the end of the Cold War. Is legislation needed to require the Air Force to constantly maintain their entire fleet of aircraft with a minimum 80% mission capable rate?

General WILSON. No legislation is required at this time. Mission capable rate is only a partial measurement of readiness, and not all fleets require 80% mission capable rate to meet operational requirements. In fact, legislation absent top-line budgetary increases could be counterproductive as we seek to balance readiness, capability and modernization. Consistent funding provides the necessary predictability to address readiness challenges.

Mr. SCOTT. JSTARS provides a significant component of the current fight's command and control capability. The technical experience and experience those operators have is critical to shaping ABMS. As ABMS moves forward in its development and test cycles, can you ensure us that the JSTARS operators will be engaged in helping shape the system's operational requirements? When do you expect there will be an operational test or demonstration at Robins AFB to get those operators fully engaged and confident in the future capability?

General WILSON. The Air Force acknowledges the technical expertise at Warner Robins AFB; particularly in the areas of battle management, command, and control. Early and frequent engagement with the operational community is a core compo-

ment of the ABMS effort. This is primarily managed through the combatant commands and major commands in order to ensure broad alignment across the force and with future operating requirements. Operational planners, battle managers, and intelligence analysts are already involved in planning ABMS onramp exercises and in shaping future development. Future ABMS planning will include a broad cross section of the operational community including operators from systems such as JSTARS, AWACS, Air Operations Centers, Control and Reporting Centers, and Distributed Common Ground System. Exercises are more likely to take place where there are large test ranges available to facilitate joint operational testing. Operators will connect to these exercises from a wide variety of distributed processing and C2 nodes. This distributed architecture is another key component of the ABMS effort.

Mr. SCOTT. The Army has stated that the Advanced Battle Management System cannot be the sole solution to their multi-domain operations command and control. I'm concerned with the capability and timeline of ABMS and the lack of current fleet modernization, but having each service focus on its own C2 capability is how we ended up with billion dollar programs that can't communicate with each other. What is the Air Force doing to engage the Army to provide warfighter multi-domain operations C2 requirements as ABMS moves forward? How integrated is the Army in ABMS development and test efforts in order to work toward a true joint command and control capability instead of the "every service has its own way" system we have now?

General WILSON. The Air Force and Army are already engaged on this subject, most recently at the Army Joint All-Domain Command and Control Home-on-Home event. The next engagement will be at the next scheduled Army-Air Force Warfighter talks. The Army participated in the first ABMS exercise with radars and long range fires. The Army has also been invited to participate in the next ABMS exercise with an infantry company, Sentinel radars, long range fires, and Apache helicopters. We expect to co-invest with the Army in certain technology areas including networks and data standards. We will work with the other services to build the connectivity required for a network-of-networks while we develop a concept for truly joint command and control over that network. ABMS is the Air Force technology investment in hardware, software, and digital infrastructure to enable this connectivity between the Air and Space Forces and with the broader Joint Force.

Mr. SCOTT. Are the Air Force's Aggressor squadrons at risk of irrelevance from a lack of long-term recapitalization? What are the advantages of using fourth generation aircraft in an aggressor role to prepare for possible combat against Communist China or Russia? What are the disadvantages of using 4th generation aircraft in an aggressor role? What is the ideal aircraft for use by aggressor aircraft squadrons?

General WILSON. Yes. The Air Force will continue to evaluate this risk as we prioritize numerous training and readiness requirements, across the force and across domains, and strive to balance operational training infrastructure investments to best deliver lethal, full spectrum readiness within AF TOA constraints.

Fourth generation aircraft are cheaper to operate; have a higher aircraft availability rate, and can provide more sorties in a given time frame (utilization rate) than fifth generation aircraft, noting that a mix of fourth and fifth generation Aggressor aircraft is required to prepare for near-peer/peer threats.

Fourth generation aircraft cannot replicate Fifth generation aircraft capabilities, nor provide low observable characteristics. A mix of Fourth and Fifth generation Aggressor aircraft is required, noting that as Fourth generation Aggressor aircraft age, they require hardware and software upgrades to remain relevant.

There is no one ideal aircraft. Given that our potential adversaries operate Third, Fourth, and Fifth generation aircraft, our professional Aggressor force must replicate throughout the spectrum of threat aircraft capabilities, tactics, techniques, and procedures in order to prepare our combat forces for near-peer/peer threats, noting that a mix of both Fourth and Fifth generation Aggressor aircraft is necessary to allow for sufficient training at multiple locations.

Mr. SCOTT. In standing up the United States Space Force, are there things you can do today at the onset that would prevent the Space Force from becoming a "Hollow" force in the future?

General THOMPSON. Proper initial resourcing: The Air Force submitted the first ever separate budget request for space as part of the FY21 President's Budget cycle, identifying approximately \$15.4B of transferred funding from across the DOD to resource the Space Force. With this budget request, the Air Force transferred all funding associated with space missions and functions to the Space Force, ensuring the new Armed Force was resourced to perform its mission.

Future funding tailored to threats: Moving forward, the Space Force must have stable and consistent funding to enable it to address growing threats in the space

domain. The Space Force is committed to minimizing cost and bureaucracy, but its end strength and budget should reflect rising threats from our adversaries. Having an independent budget will allow us to continue to advocate for DOD resources so we can protect and defend the space domain.

Consolidation of space capabilities from across DOD: Establishment of the Space Force represents a once-in-a-generation opportunity to address long-standing challenges associated with fractured and disparate space architectures and capabilities. The SECDEF has made clear his vision is to consolidate the preponderance of space forces of all Armed Forces into the Space Force to address these challenges. To realize his vision, OSD is leading a study with the Army, Navy, and Space Force to identify the missions, functions, and units that should transfer to the new Service from across DOD. A decision is anticipated later this spring.

QUESTIONS SUBMITTED BY MR. KIM

Mr. KIM. General Wilson, I understand that the Air Force is considering a change to the sustainment strategy for C-17 and concluded a business case analysis last year. Worryingly, the Air Force has acknowledged that the changes they are contemplating would degrade material readiness for the C-17 fleet. Joint Base McGuire is home to 14 C-17 aircraft of the 305th Air Mobility Wing. These very high-demand aircraft can only support warfighter and humanitarian requirements if they continue to have the high mission capable rates operators have come to rely upon.

1) To your knowledge were TRANSCOM and the Guard meaningfully consulted in the business case analysis? I am concerned that the warfighter may not have had a say in a contemplated change which would reduce mission capable rates.

2) As the USAF works towards achieving 80% mission capable rates across the entire service, why would the USAF contemplate a change they acknowledge will reduce mission capable rates on a platform that has maintained or exceeded these 80% rates for more than 20 years, rather than use the existing sustainment arrangement as a model for other platforms? I do not believe trading an acknowledged degradation in readiness on a high-demand asset in exchange for disputed cost savings achieved over a 50-year window—with no ROI for 14 years—is the right thing to do for the warfighter or the taxpayer.

General WILSON. In 2019, the Air Force completed a Product Support Business Case Analysis which suggested moving more heavy maintenance from the contractor's maintenance location to the Air Logistics Complex at Warner Robins could result in \$7.2B savings across the program's life cycle. No changes that would degrade materiel readiness were considered, as the ground rules for the analysis required all courses of action must maintain current or improve C-17 virtual fleet performance (USAF and partner fleets). The Air Force's Air Mobility Command represented the user throughout the Product Support-Business Case Analysis effort. AMC is the air component of the U.S. Transportation Command and is responsible for a Total Force effort to execute Rapid Global Mobility and enable Global Reach missions. The C-17 program office continues to assess feasibility of implementing any changes to the system's product support strategy.

QUESTION SUBMITTED BY MR. WILSON

Mr. WILSON. I am concerned about the future of C-17 Globemaster sustainment. The current sustainment arrangement is a model program which has delivered 80%+ mission capable rates every year for more than 20 years, in a true partnership between the contractor and the air logistics center at Warner Robins. Half or more of the heavy maintenance is performed by the depot, with the contractor augmenting with engineering, supply chain, management, and additional heavy maintenance capabilities. I understand that the Air Force is considering a change to the sustainment strategy for C-17 and concluded a business case analysis last year. Worryingly, the Air Force has acknowledged that the changes they are contemplating (pulling 100% of USAF fleet heavy maintenance organic) would degrade material readiness for the C-17 fleet. Joint Base Charleston is home to 40 C-17 aircraft, tied for the largest fleet in the U.S. These very high-demand aircraft can only support warfighter and humanitarian requirements if they continue to have the high mission capable rates operators have come to rely upon.

As the USAF works towards achieving 80% mission capable rates across the entire service, why would the USAF contemplate a change they acknowledge will reduce mission capable rates on a platform that has maintained or exceeded these 80% rates for more than 20 years, rather than use the existing sustainment arrangement as a model for other platforms?

General WILSON. In 2019, the Air Force completed a Product Support Business Case Analysis which suggested moving more heavy maintenance from the contractor's maintenance location to the Air Logistics Complex at Warner Robins could result in \$7.2B savings across the program's life cycle. No changes that would degrade materiel readiness were considered, as the ground rules for the analysis required all courses of action must maintain current or improve C-17 virtual fleet performance (USAF and partner fleets). Additionally, no changes to the contractor's role in providing engineering support and supply chain management are being contemplated. The C-17 program office continues to assess feasibility of implementing any changes to the system's product support strategy.

