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COMMITTEE ON
ARMED SERVICES

UNITED STATES SENATE

HEARING TO CONSIDER THE NOMINATION OF
LIEUTENANT GENERAL BRADLEY C. SALTZMAN,
USSF TO BE GENERAL AND
CHIEF OF SPACE OPERATIONS

Tuesday, September 13, 2022

Washington, D.C.

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

The committee met, pursuant to notice, at 9:31 a.m. in Room SD-G50, Dirksen Senate Office Building, Hon. Jack Reed, chairman of the committee, presiding.

Committee Members Present: Senators Reed [presiding], Shaheen, Gillibrand, Blumenthal, Hirono, Kaine, King, Peters, Rosen, Kelly, Inhofe, Wicker, Fischer, Cotton, Rounds, Ernst, Cramer, Scott, Blackburn, Hawley, and Tuberville.
OPENING STATEMENT OF HON. JACK REED, U.S. SENATOR FROM RHODE ISLAND

Chairman Reed: Good morning.

The committee meets today to consider the nomination of Lieutenant General B. Chance Saltzman for promotion to general and to be the next Chief of Space Operations.

General Saltzman, welcome. I thank you for your decades of service and willingness to serve in this very important position.

I would like to welcome your wife, Jennifer, your son, John, and your daughter, Sarah, and while not present today let me also acknowledge your parents, Randy and Belinda Saltzman, who are watching from home, I am sure, and I know they are very proud of your nomination.

Recognizing the increasing importance of the space domain and the growing threats to our critical space assets by China and Russia, Congress established the Space Force in the fiscal year 2020 National Defense Authorization Act.

The first Chief of Space Operations, General Raymond, then the commander of the U.S. Air Force Space Command, was legislatively transferred in 2020 to be the chief. So you are the first to be nominated and have a hearing for this position.

Given that the Space Force is only two years old, it is still becoming institutionalized within the Department of
Defense and there are many challenges in that process.

First, the Space Force must develop its ability to train and equip Guardians. Space is a remote domain, one that is now contested. Your Guardians will have to have the ability to integrate digital and other advanced technologies to accomplish their mission, all underpinned by a strong STEM background.

My understanding is the Space Force is standing up a Space Training and Readiness Command, or STARCOM. I will want to know your views, if confirmed, at how STARCOM will train future Guardians as a warfighting force in the space domain.

Second, you will have to foster a service culture that can succeed in the dramatically evolving space environment often called "New Space." We are witnessing an enormous surge in the space industry with some satellite constellations that numbered one or two dozen satellites a few years ago now having thousands in low earth orbit, all interconnected to provide high-speed internet anywhere on the globe.

Rockets that were once disposable are now reusable, lowering the cost of launch to a fraction of what it used to be. The Space Force of today and tomorrow must adapt to this rapid change in pace of innovation and utilize it to protect and defend our assets in space and on the ground.
The Space Force, its organization, and its Guardians need to reflect this changing environment.

Third, in response to the growing adversarial threat in space, Congress not only created the Space Force as a warfighting entity, it also reorganized the way we acquire space systems, the way we formulate space policy, and the way we fight in space with a new combatant command.

If confirmed, you will lead the Space Force in this new national defense enterprise. I want to know what you foresee as major issues you expect to face and how you will ensure the Space Force can respond to them.

Most importantly, an integral part of the military service is its new culture and its unity of mission. When the Space Force was established, most Guardians necessarily transferred from other services and, thus, had to adapt to a new culture.

I was pleased to learn in our meeting last week that successful recruiting efforts have ensued that soon one-third of the Space Force will never have served in another service.

General, I am interested in how you intend to create a unique culture with the blend of transfers and new recruits.

Thank you again for your willingness to serve our nation. I look forward to your testimony.

Let me now recognize Ranking Member Inhofe.
STATEMENT OF HON. JAMES M. INHOFE, U.S. SENATOR FROM
OKLAHOMA

Senator Inhofe: Thank you, Mr. Chairman, and I would also like to extend a welcome to the general and I appreciate the time you spent with me giving me an idea of what you have in your mind, and also the fact that you have your family here today it is very meaningful to us. We appreciate that very much because you are not going to see a lot of them in the days to come.

Our National Defense Strategy is not shy about the scope and scale of the threat from China and the speed of the advances. There is no better example of that than space.

In a decade, the United States has gone from the unquestioned leader in space to merely one of two peers in a competition. Most people do not realize that.

There is a lot China and Russia are doing in space we cannot talk about today but even what we can talk about in public is very concerning.

For years, we have kept noting that everything our military does relies on space but we never really acted like it. Worse yet, space is no longer simply an enabler for other functions.

So we have a different environment altogether today and you are only the second one to take on this awesome
responsibility, and we appreciate very much the effort that you are making and the background that you bring.

Thank you, Mr. Chairman.

Chairman Reed: Thank you, Senator Inhofe.

And, General Saltzman, you are recognized for your opening statement.

Could you please bring the microphone as close as possible and -- thank you.

General Saltzman: Can you hear me okay?

Chairman Reed: Yes, sir.
STATEMENT OF LIEUTENANT GENERAL BRADLEY C. SALTZMAN,
USSF TO BE GENERAL AND CHIEF OF SPACE OPERATIONS

General Saltzman: Thank you, Chairman Reed, Ranking Member Inhofe, distinguished members of this committee. I am honored and deeply humbled by the opportunity to be with you this morning.

I would like to begin by introducing my family. With me today are the most important people in my life.

First, my wife, Jennifer. I am very proud to announce that just yesterday we celebrated our 30th wedding anniversary. Jennifer has been steadfastly by my side for this entire military journey through 15 moves, nearly 200 overnight ICBM alerts, countless late nights and trips away from home, and most recently a year separated while I deployed to the Middle East.

She has taken on all these challenges and conquered them with a smile on her face and warmth in her heart. But her most amazing accomplishment has been raising our two children into the fine young adults you see here.

Our son, John, is a director of social media content for a sports marketing firm and our daughter, Sarah, recently completed a master's degree in public administration with a perfect 4.0 GPA.

Jennifer and I could not be prouder of these two. They have followed Mom and Dad all over the country and been
successful at every turn. They meet challenges head on and have always shown maturity beyond their years, optimism, and a contagious wit.

My home and family are my bedrock and they are, clearly, at the center of any career success that I have enjoyed. I owe all of that to these three, and I will be forever grateful for the love and support they have shown and the sacrifices they have made.

I would also like to take this opportunity to offer a special thanks to General Jay and Mollie Raymond. The Saltzman and Raymond families go back many years and we have benefited greatly from their mentorship and friendship.

They are concluding 38 years of distinguished service to our nation but these last three years have been critical to the historic establishment of the Space Force. Their passion, dedication, and vision have set the Space Force on a solid foundation.

If I have the good fortune to be confirmed, Jennifer and I will work hard to build on their successes and continue to push the Space Force to new heights.

I would also like to express my appreciation to this committee for your relentless support and advocacy for our Space Force, its Guardians, and their families.

For the last two years, I have had the privilege of serving with these Guardians and I can attest that they are
the finest men and women that America has to offer. If confirmed, it will be the honor of my life to lead them as the second Chief of Space Operations for the United States Space Force.

Not quite three years ago Congress established the Space Force to provide freedom of operation for the United States in, from, and to space, to conduct space operations, and to protect the interests of the United States in space.

In the few short years since the Space Force was established, the number of satellites on orbit has doubled and the global space economy is approaching half a trillion dollars.

Space is truly a critical domain for U.S. interests so we must be clear eyed in our understanding that our strategic competitors have invested heavily in fielding systems capable of disrupting, degrading, and even destroying our space capabilities.

If confirmed, I will work to ensure that Space Force is ready to protect these vital interests from these threats.

It is truly an honor to be nominated to serve as the Space Force's next Chief of Space Operations. I am excited about the opportunities ahead for the Space Force.

If confirmed, I look forward to working with this committee, other members of Congress, to continue to ensure the Space Force fulfills its mission as part of America's
Joint Force.

I look forward to your questions. Thank you.

[The prepared statement of General Saltzman follows:]
Chairman Reed: Thank you very much, General Saltzman.

Before I begin the questioning, there are a series of standard questions for nominees and you can respond.

Have you adhered to applicable laws and regulations governing conflicts of interest?

General Saltzman: Yes.

Chairman Reed: Have you assumed any duties or taken any actions that would appear to presume the outcome of the confirmation process?

General Saltzman: No.

Chairman Reed: Exercising our legislative and oversight responsibilities makes it important that this committee, its subcommittees, and other appropriate committees of Congress receive testimony, briefings, reports, records, and other information from the executive branch on a timely basis.

Do you agree, if confirmed, to appear and testify before this committee when requested?

General Saltzman: Yes.

Chairman Reed: Do you agree, when asked before this committee, to give your personal views even if your views differ from the administration?

General Saltzman: Yes.

Chairman Reed: Do you agree to provide records, documents, and electronic communications in a timely manner
when requested by this committee, its subcommittees, or other appropriate committees of Congress and to consult with the requester regarding the basis for any good faith delay or denial in providing such records?

General Saltzman: Yes.

Chairman Reed: Will you ensure that your staff complies with deadlines established by this committee for the production of reports, records, and other information, including timely responding to hearing questions for the record?

General Saltzman: Yes.

Chairman Reed: Will you cooperate in providing witnesses and briefers in response to congressional requests?

General Saltzman: Yes.

Chairman Reed: Will those witnesses and briefers be protected from reprisal for their testimony or briefings?

General Saltzman: Yes.

Chairman Reed: Thank you very much, General.

General, in my comments I talked about the Force Design that the Space Force must lead. The intent in Congress is to centralize that Force Design in the Space Force, and the Senate version of the 2022 National Defense Authorization Act deemed the Chief of Space Operations to be the Force Design architect for space of the armed services are no
different in many ways of how the Chief of Naval Operations
is the designer of the fleet of ships for our Navy.

The conference bill required the Secretary of Defense
to designate the Chief of Special Operations as the Force
Design architect and the August 17th letter sent to the
committee by the Secretary does, indeed, designate the chief
as the Force Design architect except for all of the other
authorities of space residing in the armed forces in the
Office of the Secretary of Defense, which are rather
extensive.

Do you think this is a workable designation and follows
the intent of Congress?

General Saltzman: Yes, sir, I do.

I have had extensive discussions with the Secretary of
the Air Force and General Raymond, the current Chief of
Space Operations, and it is my understanding that the
exemptions that you mentioned really are not about
authorities associated with the Force Design architect and
that the authorities and responsibilities that the Secretary
of Defense gave to General Raymond as the Chief of Space
Operations is sufficient to accomplish the intent of
Congress.

And, if confirmed, I would continue to execute those
same authorities and responsibilities so that I could take
seriously those priorities for Force Design to make the
Space Force as capable as possible.

Chairman Reed: Thank you.

General Saltzman, if confirmed, your job will be to present training and equip forces to U.S. Space Command primarily but also you will have the duty to support other combatant commands such as EUCOM, et cetera.

Is there any significant distinction in your mind between your responsibilities between those two or the different commands you will support?

General Saltzman: No, Senator. The responsibilities of the Chief of Space Operations are to make sure there are ready forces that have the flexibility, the agility, the training, and experience necessary to support all combatant commanders.

Of note, of course, is that U.S. Space Command has primary responsibilities for that space area of responsibilities as well as some key missions providing capabilities for the Joint Force.

And so while over 90 percent of the Space Force capabilities are presented to U.S. Space Command, there are critical other capabilities -- regional capabilities -- that are also presented to the other combatant commands to fulfill their missions as well.

Chairman Reed: Thank you.

General Saltzman, the administration has sent a
legislative proposal to create, essentially, full and part
time Space Force military personnel in lieu of our separate
Reserve and Guard elements as in other services and this, I
think, originates because the Space Force is relatively
small and the Reserve and Guard elements would be smaller
still. Do you support this proposal?

General Saltzman: Senator, the most important aspect
of this is that there are critical capabilities and
expertise that currently reside in the Air Force Reserves as
well as the Air National Guard.

The primary responsibility, of course, is to make sure
that we have complete access to that experience, that
expertise, and those capabilities.

So from a readiness perspective, I can tell you as the
Chief of Operations currently that is high on my list to
make sure that we have unfettered access to those
capabilities.

We are also looking at flexible and innovative ways to
make sure that we have viable and flexible career paths for
our Guardians. It is important that we retain this talent
for an extended period of time to get the most out of them,
and having the ability to seamlessly and have a permeable
way to move between full time and part time capacity inside
the Space Force, we think, is a tremendous benefit to the
Guardians and, ultimately, to the force to maintain that
readiness.

So, if confirmed as CSO I would, certainly, welcome the
time.

opportunity to continue to work with members of this
committee and other stakeholders to make sure that we get
the right organizational structure to take advantage of
these capabilities.

Chairman Reed: Thank you.

Again, one of the great challenges you have facing you
is creating a culture in the Space Force as a warfighting
force, one that is highly technical and one that innovates
constantly. We find sometimes culture is more determinative
of outcomes than a lot of other factors.

So that is something, I think, you will be working on
and we hope to work together with you. Thank you very much.

Now, let me recognize the ranking member, Senator

Inhofe.

Senator Inhofe: Okay.

General Saltzman, let me get the two required questions
out of the way so no one else will have to do it. The two
are what worries you the most and what do you intend to do
about it, and secondly, what will be the first challenge
that you go after?

Two questions.

General Saltzman: Yes, sir. Thank you.

The most immediate threat, in my opinion, is the pace
with which our strategic challengers, first and foremost, the Chinese, are aggressively pursuing capabilities that can disrupt, degrade, and ultimately even destroy our satellite capabilities and disrupt our ground infrastructure.

They have watched how we perform Joint Force operations. They know how critical the U.S. -- how critical the U.S. space capabilities are to the Joint Force.

They have learned from that and they recognize that it is an asymmetric advantage of theirs to go after our space capabilities and deny them to the Joint Force, and they have invested heavily and demonstrated capabilities that can deny us this.

So it is one of my earliest priorities to make sure that we are on track to build and field effective capabilities and then train the Guardians to operate in a contested domain so that we can counter this activity by our strategic competitors.

Senator Inhofe: Good. Thank you, General Saltzman.

Thank you, Mr. Chairman.

Chairman Reed: Thank you very much, Senator Inhofe.

Senator Shaheen, please?

Senator Shaheen: Thank you.

Congratulations, General Saltzman, on your nomination.

Now, I hope that for your 30th anniversary you are doing something other than just bringing your wife to this
hearing.

[Laughter.]

Senator Shaheen: You know, the pearls are the gift for the 30th anniversary so I hope Jennifer has got that on her list.

General Saltzman: You are getting me in trouble, ma'am. I appreciate that.

Senator Shaheen: Seriously, I appreciated the opportunity to meet with you last week and I especially appreciated the conversation that we had about the risk that is involved with our space capabilities.

And I wonder if you could speak to how important it is to have the SBIR and STTR programs with our small businesses who are able to assume more of that risk and what would -- what your assessment is if those programs are discontinued because we do not get them reauthorized this year.

General Saltzman: Thank you, Senator.

The size of the Space Force, the criticality of the missions, means we are going to have to innovate. We are going to have to do things differently in order to deliver the kinds of capabilities that the nation needs to protect its Space Force, to protect the space capabilities, and then protect the Joint Force from our adversaries.

It is my opinion that when you are trying to innovate, when you are trying to be creative, the best way to do that
is to open up the aperture of ideas, and I think small
businesses have a tremendous role that they can play in
helping provide some of those innovative creative
capabilities that we can then leverage to build a full
spectrum response to what our adversaries are trying to do.

And so I firmly believe we ought to lower the
thresholds to make it easier for small businesses to offer
their capabilities for us to take into.

Senator Shaheen: So I assume you would agree with me
that if we do not get those programs reauthorized it is
going to be a real loss in terms of the innovation that our
small businesses are providing to the space program and also
to our military?

General Saltzman: If confirmed, I am, certainly,
committed to any authority's responsibilities that help pull
the maximum number of innovators in to solve my problems as
possible.

Senator Shaheen: Thank you.

Can you also talk about the risk issue in terms of our
procurement process?

I think General Hyten talked about the bureaucratic
hurdles that impede our ability to procure the capabilities
we need and as we are looking at our adversaries,
particularly China, they do not have to deal with that.

So what do you see in terms of policy changes that we
should do that would help us address the procurement issues that we have got?

General Saltzman: Well, we have a very deliberate process to make sure that we are wisely using our taxpayer dollars. You bring up an excellent point that the urgency — the sense of urgency that our adversaries have imposed on us require us to move quickly to develop these capabilities. And so I am, certainly, committed to making sure that we streamline our processes. Congress has helped with the establishment of a Force Design architect in the CSO -- the Chief of Space Operations.

I think streamlining the requirements, being clear exactly what we need, innovating to pull in as many ideas as possible to solve those problems, will streamline our efforts and deliver operational capability faster.

The cultural piece of this, sometimes we get focused on the fact that we need to purposely build capability to provide space capabilities for the nation.

Out at Space Systems Command they have adopted a mantra about exploiting what we have, buying what we can, and only building what we must, and I think having that open thought process for how best to bring capabilities to bear will actually streamline the process and make us do a better job.

Senator Shaheen: Thank you. I appreciate that.

During our meeting, you also talked about and you did
-- as you did in your opening statement the importance of
the people in our Space Force and that they will make a
difference in our success or failure.

One of the things that I understand Space Force may be
rethinking is some of the requirements that disqualify 70
percent of young Americans from military service.

Can you speak to what we ought to be thinking about as
we are thinking about how do we get more of those Americans
into service?

General Saltzman: We may be a small force, ma'am, but
we require highly-skilled technical experts to be brought in
to do these important critical missions for the Space Force.

We also have an advantage by being small that we can
consider on a case by case basis precisely the right people,
the right kinds of people with the right skill sets, the
right diversity of thought, into the Space Force to optimize
our capabilities.

And so by being able to consider this on a case by case
basis, I think we do not have to put blanket restrictions on
types of people, on types of qualifications, that bring you
into the Space Force.

So we have a tremendous opportunity, I think, because
of the numbers that we need to bring in to be more
individualistic, and if confirmed as CSO I would want to
expand that and actually broaden this out to as many people
as possible.

Senator Shaheen: Well, thanks very much. I look forward to that -- continuing that discussion.

Thank you, Mr. Chairman.

Chairman Reed: Thank you, Senator Shaheen.

Senator Cotton, please?

Senator Cotton: General Saltzman, welcome, and congratulations on your nomination.

I want to explore a little bit your thoughts on the relationship between the Space Force and the National Reconnaissance Office. You are well suited for that not only in the Space Force but having served at the NRO.

I have heard it said by some that once any asset goes into space it becomes strategic intelligence and, therefore, should fall underneath the NRO, although that point of view would seem to conflict with the mission of Space Force.

So could you explain how the Space Force should relate to the NRO and how that should look and function?

General Saltzman: Yes, sir.

I learned to fly satellites in the NRO. I was an NRO ground station commander so I speak from a personal basis from an insider, if you will, that that mission that the NRO does -- the missions that the NRO does are critical, critical to the United States.

But they do -- there are differences in the missions
that they support, the requirements that they support, and
the customers that they support, and although there are
differences the collaboration between the two organizations
is essential for both's success.

And as I mentioned earlier, Space Systems Command
thinking through how do we exploit what we have, how do we
buy what we can and build only what we must is that mantra
that underpins some of the collaboration.

We will need to look as we examine where our missions
start to overlap whether it is intelligence, surveillance,
and reconnaissance or some of the other protect and defend
missions.

Wherever we overlap we need to evaluate what current
capabilities exist, what we need to -- what we can buy
commercially and what we need to build specifically to fill
the gaps, and then not walk all over each other, to not be
overly redundant, because we cannot afford to be.

And so I think through this collaboration, and the NRO
relationship right now is solid and we do have good solid
collaborations. The current analysis of alternatives proves
that out.

And so I think we are on a good pace. I think we just
need to keep it up.

Senator Cotton: Are there any changes to the law that
need to happen to ensure that Space Force can do that?
General Saltzman: I am not tracking any changes that need to occur now, sir. As I get into the position, if confirmed, I would welcome the opportunity to come back and evaluate any changes or make any requests that need to be modified.

Senator Cotton: You have said this morning, as have others, that space is a warfighting domain. Most people, I think, understand that our troops on the ground or on the seas or in the air use our space assets to help fight war in their domains.

But you also mean that space itself could be a warfighting domain, correct?

General Saltzman: I do.

Senator Cotton: Okay. So the timeless principles of war that have stood the test of time, from Alexander to Washington to Napoleon to Grant, would apply in space just like they apply here on Earth, right?

General Saltzman: I agree.

Senator Cotton: And one of those principles is the priority of the offensive. Can you talk to us a little bit about what offensive operations in space would look like?

General Saltzman: When I think about space superiority, which is kind of the phrase we use to mean that we are going to contest that domain to make sure that we have access to the capabilities, part of that also means
that we are going to protect the Joint Force from an adversary's ability to use space to target them.

I think the best way to achieve this is through deterrence; prevent a war from extending into space denying us those capabilities. But the best way to deter is to have a resilient capability and to have offensive and defensive capabilities that creates a credible force. That is where you really get your true deterrence.

Senator Cotton: All right. Thank you, General.

Chairman Reed: Thank you, Senator Cotton.

Senator Gillibrand, please?

Senator Gillibrand: Thank you, Mr. Chairman.

Congratulations and congratulations to your family.

The federal government has struggled to recruit cyber and digital service professionals both in the civilian and military service. This challenge is also seen in other high-tech fields as well.

To address this challenge, I have worked with Senator Rounds and Senator Sasse on proposing the creation of a Cyber and Digital Services Academy to recruit and train the next generation of cyber professionals into the government service.

Given the highly technical nature of Space Force's work, should Congress consider integrating Space Force cadets into the Cyber Academy and using a potential Cyber
Digital Services and Space Academy as the service academy commissioning source for Space Force officers and civilians?

General Saltzman: Senator, there is no way the Space Force can be successful without capable cyber professionals. We simply rely too much on our ground networks, on the RF links that connect our satellites to our ground nodes.

The distribution of data that is required to really meet our goals all relies on highly capable, highly technical cyber professionals.

So in the pursuit of finding them and training them and continue to provide advanced training for them, I would be open to any institutions or capabilities that can add to our portfolio to make sure that our cyber operators are trained and continue to be at the leading edge of technology.

If confirmed as CSO, this would be one of my priorities.

Senator Gillibrand: And what do you think some of the recruiting challenges -- what do you think they will be for Space Force and have you been able to recruit and retain the technical workforce that you need and where are some of your current shortfalls?

General Saltzman: Yes, ma'am.

We currently are not seeing the recruiting shortfalls that some of the other services are facing. Primarily, that is because we do not require as many in the Space Force. We
have that good fortune of being smaller so that our 
recruiting numbers are lower.

But that small workforce is highly skilled, highly 
technical, and so we have to reach out and find just the 
right people, train them to do our specific and sometimes 
military-unique missions inside the domain, which then means 
it is important for us to retain them over the course of 
their career so that we can continue to benefit on their 
gathered experience.

That is going to be, I think, more difficult as they 
see opportunities in the private sector to use the skills 
that we provide them.

So, in my mind, this is about culture. This is about 
giving them challenging work, respecting their inputs, and 
making it a place they just want to show up to work every 
day to protect the nation. That is what I am committed to 
if confirmed as CSO is getting that culture right.

Senator Gillibrand: And I listened very carefully to 
your response to the chairman's question about the National 
Guard. In your written response to advance policy questions 
you wrote that you are most concerned with maintaining the 
readiness of the space units in the Air National Guard.

I have heard some concerns that the training pipeline 
for these Air National Guard units will be cut off, given 
the transition of the active duty space missions to the
Space Force.

How will you ensure that these Air National Guard units are able to fully execute these missions?

General Saltzman: As I mentioned, those capabilities are critical to the success of the Space Force. The way I see it, they can be organized in several different ways. I think there is three options that are being considered.

The key is that there are pros and cons and advantages and opportunities in each of these that are slightly different, and so what is important is that we take the time to evaluate all of those second and third order effects to make sure we optimize the capabilities, optimize their long-term viability, the training, the recruiting, the retention, of that expertise.

And if confirmed as the Chief of Space Operations what I would like to do is work with the committee, work with the other stakeholders, to really evaluate all of those nuances to make sure we optimize the organizational structure.

Senator Gillibrand: But, basically, you want to use the space units that are part of the Air National Guard as your feeder?

General Saltzman: I think those capabilities are important to the success of the Space Force.

Senator Gillibrand: Understood.

I saw that the Space Force's direct commissioning
program began this spring with the Cyber Constructive Service Credit Board in order to acquire cyber professionals.

Can you speak to what specific operational billets are needed that this initiative to commission cyber professionals can help fill and how has the process gone so far?

General Saltzman: What we are recognizing is that to get the mid-grade officers -- the 15-year technicians -- it takes 15 years to grow them if we start from scratch at the accessions point.

If we are able to take advantage of the expertise they gain in the private sector and pull them over, we want to give them credit so they can lead our organizations and not start at the bottom of the organization. And so we are seeing a lot of positive interest in that and the pilot program is going successful so far.

Senator Gillibrand: Thank you. Thank you for your testimony and thank you for your service. I do hope you get to meet all the former heads of Space Force, including Steve Carell.

[Laughter.]

Chairman Reed: Thank you very much, Senator Gillibrand.

Senator Tuberville, please?
Senator Tuberville: Thank you, Mr. Chairman.

Congratulations, General, to you and your family. Just a couple of questions here.

Do you believe our national security launches should remain on U.S. soil?

General Saltzman: Sir, assured access to space is a national imperative. I am open to making sure that we can put any kind of payload, any type of payload, into any of the orbits that are required.

This will take establishing a number of launch providers, a number of launch locations, to maintain the kind of agility and flexibility we need to ensure that that mission continues.

So I am open to exploring all options to make that the most flexible capability possible.

Senator Tuberville: If confirmed, what would you do to protect the DOD and U.S. contractors from intellectual property theft, which is a huge problem, as we know?

General Saltzman: Yes, Senator.

If confirmed -- again, I think about this in terms of cyber defense because a lot of times that is how they are gaining access to our capabilities and, as I mentioned, we cannot do anything without our cyber networks, without our cyber professionals defending those networks.

So what I would commit to is looking at the tools they
need, the training they need, the experience they need to make sure that they are the most capable force in defending our intellectual property and our networks from the actions of our adversaries.

Senator Tuberville: What would you say our percentage of cybersecurity is in the Space Force -- percentage of your people? How much would that be? Ten, 15, 20 percent?

General Saltzman: Senator, I do not think I have a specific number. We only have five officer categories and an equal number of enlisted categories.

So all of our operators, all of our personnel, are really focused on operations. One of those subsets is cyber. But I am happy to take that for the record and get back with you on a specific number.

Senator Tuberville: Thank you.

We have previously been told that Space Force is not looking at any new launch requirements for Phase 3 the National Security Space Launch program. Given Chinese developments just this week, do you believe that we should explore in establishing new requirements?

General Saltzman: Senator, it is my understanding that we are still developing the Phase 3 of the National Security Space Launch strategy.

We are still trying to figure out the best way to bend the requirements, to take advantage of both the high-end
established launch service providers but also find room for these emerging smaller launch service providers, and I think that mix creates the kind of flexibility we need and it is about getting the requirements set just right.

And, if confirmed, I would be committed to looking and working with stakeholders to make sure we get that balance just right.

Senator Tuberville: Thank you.

You know our supply chain remains a challenge, especially for our national security space ecosystem. How will the Space Force address these new requirements in future systems? Could you give me your thoughts on that?

General Saltzman: Senator, what we are learning is we have to account for the supply chains -- the veracity, the robustness, of the supply chains as we go through our acquisition process.

You cannot wait till after you decide what you are going to buy and then figure out if the supply chain works, and I think our Space Systems Command and the other providers in the acquisition system have done a good job of characterizing that, and once you characterize it effectively then you can make sure you are defending it, making it as robust as possible, making it flexible so it is not sensitive to problems in the supply chain, that we have other areas to go, and, if confirmed, I would continue to
promote that.

Senator Tuberville: Thank you, General. Good luck.

It is going to be a tough job.

But thanks for being here today, you and your family.

It is it. This is quite an honor -- obviously, the second head coach, basically, of Space Force. So thank you very much.

And, Mr. Chairman, this is National Peanut Day so that is the reason I put all these peanuts in front of everybody from Alabama. So thank you, sir.

Chairman Reed: Thank you very much, Senator Tuberville, and thank you for the peanuts.

Senator Hirono, please?

Senator Hirono: Thank you, Mr. Chairman, and thank you for the peanuts. We need to -- energy.

General, welcome to you and your family.

To ensure the fitness of nominees for appointment to senior positions within any of the departments I ask the following two initial questions of all nominees in any of the committees that I sit on so I will ask you these initial questions.

Since you became a legal adult have you ever made unwanted requests for sexual favors or committed any verbal or physical harassment or assault of a sexual nature?

General Saltzman: No.
Senator Hirono:  Have you ever faced discipline or entered into a settlement related to this kind of conduct?

General Saltzman:  No.

Senator Hirono:  General, over the past several years the regional SATCOM Support Center Pacific has experienced a significant amount of mission growth as the armed forces have become more reliant on satellite communications.

Unfortunately, regional SATCOM Support Center Pacific has not seen corresponding manpower increases to handle this additional work. With Army satellite operations set to be consolidated under Space Force in the near future, will you consider increases to the Space Force's manpower levels to ensure every unit is able to keep pace with its mission requirements?

General Saltzman:  Senator, I think one of the most important things that the Space Force has done since its inception is consolidating military SATCOM -- military satellite communications -- under a single service.

It gives us a lot of authorities, responsibilities, and opportunities to do just what you are saying and that is increase the readiness of those units so that they can provide these critical capabilities.

And so we are redesigning currently how we assess and force present for readiness all of our units. First and foremost amongst those are these new units that are coming
across from other services.

And so the short answer is if confirmed as the CSO I would take the readiness of these units very seriously and the manpower elements of readiness is a key concern.

Senator Hirono: That sounds like a yes.

You have been asked a number of questions from both the chairman and Senator Gillibrand about the role of the National Guard in Space Force, and I recently met with members of the Hawaii Air National Guard to discuss their concerns about the potential transition of space missions away from the Air National Guard to the Space Force.

These men and women have committed to the space mission on Kauai and have dedicated their time and training to building their expertise in space electronic warfare.

However, remaining assigned to the Air Force while carrying out Space Force missions has resulted in budget gaps and training delays.

It is my understanding that the Space Force and Air Force are evaluating three potential actions to resolve this issue, including the establishment of a Space National Guard.

I think that we, in Congress, is expecting or was expecting a report on how Space Force was going to be constituted due in March and we do not have that report yet.

So until the decision is made as to how the Space Force
is going to be constituted, how will you ensure that such National Guard units which, by the way, exist in a number of states -- that would be, excuse me, California, Colorado, Florida, Hawaii, Ohio, Guam, and Alaska -- how would you ensure that such National Guard units are adequately resourced and have access to the requisite training required to carry out their space missions?

General Saltzman: Yes, Senator. I think you have characterized that just right.

I know that this is also a concern for U.S. Space Command and as one of the key force providers to U.S. Space Command we were involved in those discussions where the Air Force and the Air Guard through the Air Reserve also provide those capabilities.

And so readiness, again, is my primary concern, having access to that expertise, and as a part of the Department of the Air Force, if confirmed as CSO, I would be in those deliberations to make sure that those forces are as ready as possible to meet the combatant commanders' requirements.

Senator Hirono: And, if confirmed, would you agree that the National Guard should be consulted in any decision or cost estimate related to a creation of a Space National Guard?

Some of the concern is that creating a Space National Guard is too expensive and, really, setting up an entire
other way to constitute the Space Force could be much, much
more expensive because you already have these units in a
number of the states that I mentioned.

So I would like your commitment that you will be
consulting with the National Guard in going forward.

General Saltzman: Senator, if confirmed as the Chief
of Space Operations, I commit to collaborating with the
National Guard on a host of issues, this being one.

Senator Hirono: Thank you. Thank you, Mr. Chairman.

Chairman Reed: Thank you very much, Senator Hirono.

Senator Rounds, please?

Senator Rounds: Thank you, Mr. Chairman.

Good morning, General Saltzman, and thank you to you
and your family for your years of service.

General Saltzman: Thank you.

Senator Rounds: I most certainly appreciated the
comments that you have made so far today and I want to
approach this from a little bit different angle.

Recognizing that we are in an unclassified environment,
can you provide your assessment on Russia and China's space
capabilities as compared to ours?

General Saltzman: Yes, Senator.

We are still the greatest spacefaring nation on the
planet. The Space Force's capabilities, what we can provide
to the Joint Force, are extremely capable and I still put us
at the head of the table.

Unfortunately, our adversaries are investing heavily to close that gap and supersede us. I am worried about the pace with which they are making those changes, China first amongst them, but Russia also committed to investing heavily in the kinds of capabilities that are going to disrupt, degrade, and even destroy our on orbit capabilities.

And so it is that pace of change and their commitment to disabling it that is most concerning to me, Senator.

Senator Rounds: If you take a look at the existing capabilities, I am really curious because we have all seen what has happened in Ukraine. And, yet, if Russia has capabilities in space that are good and, perhaps, advancing, how do we account for their -- well, their repeated failures to provide relevant and timely information to strike Ukrainian forces on the ground?

General Saltzman: I am, certainly, not in a position to comment on the Russian operational failures. I will tell you that we have learned some lessons watching that operation. It may be a little early to say complete lessons learned but there are observations that are important.

For example, the use of commercial space capabilities to augment military and national decision-making capabilities has proven to be effective for the Ukrainians.

The disaggregated proliferated nature of some of the
constellations that they are using has shown a level of resilience to degradation attempts that, I think, is noteworthy.

And then, finally, I think we see how important it is to defend our cyber networks because those cyber networks create vulnerabilities if attacked to actual space capabilities.

And so when I look across what we are seeing in that Ukrainian theater I see some important lessons that we should take to heart in terms of building our Space Force design.

Senator Rounds: General, the new Advanced Battle Management System, or ABMS, will be a critical piece of our command and control on the battlefield and I understand the reasoning behind moving away from J-STARS. In fact, I support moving away from J-STARS due to the survivability issues in a contested environment.

I am concerned that a specific alternative that has gained support within and outside of the department might not provide the same level of situational awareness and targeting capabilities to our troops on the ground that the J-STARS radar is able to provide.

Part of what we look at when we talk about the ABMS is the broad picture but also specifically the need for an officer -- a commanding officer on the ground to rely on
good, specific, and very timely data in a close quarter battle situation.

Do I have your commitment that, if confirmed, you will assure that the Joint Requirements Oversight Council validated requirements for this system are met so that our troops on the ground are provided the capabilities that they need to win on the battlefield?

General Saltzman: Senator, one of the important responsibilities that is given to the Chief of Space Operations is to be the DOD integrator for joint space requirements.

It is just that kind of concern which, I think, we take seriously by establishing that critical position. And so as we evaluate the requirements we have to take all the perspectives into account. That ground commander that has to make the final decision is one of those key inputs.

So you have my commitment, if confirmed as CSO, that I will account for all the requirement stakeholders when we make critical decisions about whether missions should be migrated into space or performed by other platforms and other domains.

Senator Rounds: In Ukraine, Russia, clearly, has good space capabilities and, yet, they are not able to implement them and to use them effectively. There is not that line of command down to that local commander.
The last thing that we want to see when we move in to the ABMS system is one which gives broad informational situational awareness but is not capable of providing what we do today with regard to J-STARS to that commander on the ground.

Would you agree with that?

General Saltzman: I agree that closing that last tactical mile to make sure the right decision maker has the right information at the time and place that is operationally relevant is important.

Senator Rounds: Thank you. Thank you, Mr. Chairman.

Chairman Reed: Thank you, Senator Rounds.

Senator Kaine, please?

Senator Kaine: Thank you, Mr. Chair.

General Saltzman, congratulations on your nomination. I want to ask you some questions about leveraging commercial space technology to ensure U.S. space dominance.

In the run up to the Russian invasion of Ukraine our IC doubled its procurement of commercial satellite imagery to help prepare and provide intel to our Ukrainian allies.

The IC was also able to leverage satellites operated by Virginia Company HawkEye 360 to detect jamming efforts that were being undertaken by the Russian military in the Donbas.

This is not the first time where commercial technologies have been leveraged in effective ways but I
think it is really hitting a warp speed. In your view, how important is leveraging innovative commercial technologies to preserve U.S. space dominance?

General Saltzman: It is critically important, Senator.

The idea -- the mantra that we are using to exploit what we have, get the most out of the systems that we have already paid for but then also to consider how commercial capabilities -- a broad spectrum of commercial capabilities -- can contribute directly to our mission set and, perhaps, do it more cheaply than us building our own systems is essential.

The final element would be when there are still gaps -- as we look at our mission set if there are still gaps we might need to consider a specific military solution -- military-unique solution to that.

But the commercial services, commercial capabilities, are profoundly growing and we need to take advantage of it.

Senator Kaine: Let me ask you about one example of this.

Last year the Space Force approved experimentation and prototyping for a new tactical space layer that would leverage commercial satellite imagery to provide battle space awareness and bolster targeting capacity.

What is the time line for the development of this capacity so that our warfighters might be able to use
satellite-based information in real time to make battlefield decisions?

General Saltzman: Senator, I do not have a specific time line. If it is okay I will take that for the record and get the specific time line back to you. But I can tell you it is an important capability that we consider very seriously.

Senator Kaine: Excellent. Thank you. I will ask that for the record.

Over to another topic, the increase in the number of commercial space launch providers, together with a substantial reduction in the cost of access to space and then the proliferation of commercial constellations, could create a kind of a traffic jam in the demand for launch services, and I imagine that demand could play significant challenges on federal launch ranges such as Vandenberg and Cape Canaveral.

There are state space ports, for example, the Mid-Atlantic space port in Wallops Island, Virginia, that are being used significantly not only by private sector space operators but by NASA and others.

What would -- what could the potential relationship be between Space Force and state space launch facilities be in the future?

General Saltzman: Senator, assured access to space is
a national imperative, simple as that, and I believe that
having agility, having flexibility in the types of
capabilities that provide payloads to orbit to all of the
orbits is essential. That means maximizing the number of
launch providers as well as the amount of launch locations
that are available to the nation.

Currently, our capacity on our ranges meets the
governmental needs. But with the proliferation of small
satellites that is going to change rapidly and I think that
the number of launches is going to go up dramatically and we
are going to need to look at other opportunities.

We are currently engaged in an interagency process to
look at a national space port strategy and I think the
capabilities like at Wallops Island will naturally be a part
of that discussion.

Senator Kaine: Should you be confirmed, and I am
confident you will be, I would love to carry that discussion
further.

Let me ask you about one other topic. This is one that
I am kind of a nerd about. My favorite government
publication is Orbital Debris Quarterly News -- ODQN -- that
is published by NASA.

It is getting more and more important because there is
currently 4,500 active satellites in orbit. SpaceX has
deployed more than 1,700 Starlink broadband satellites into
low earth orbit, and then last year the FCC received from companies like Amazon, ASTRO, and Boeing petitions to put as many as 38,000 more broadband satellites in low earth orbit.

Are you concerned about how the proliferation of commercial investments could interfere or complicate national space needs and do we need to look at international rules of the road both about commercial use of space but also about the handling of debris that can -- a small amount of orbital debris can wreak havoc on a super expensive satellite platform?

General Saltzman: I am not concerned at this point about the traffic, as you mention it. I am always concerned about debris. We are committed to making sure that we lead and model responsible behaviors in space and I think that will help reduce the amount of debris associated with launch and other kinds of operations.

Senator Kaine: Thank you very much. Thanks, Mr. Chair.

Chairman Reed: Thank you, Senator Kaine.

Senator Cramer, please?

Senator Cramer: Thank you, Mr. Chairman, and, thank you, General.

Jennifer, good to see you and your family here. This is a really great day, and congratulations.

I am going to -- Senator Kaine brought up the issue of
commercial companies. I want to emphasize small commercial because one of the things -- you are in the innovation business if anybody is in the innovation business, and so I am going to ask sort of maybe three questions in one and let you just opine, if that is okay.

So, piggybacking, again, on Senator Kaine's point, maybe elaborate a little bit on the role of small commercial space companies that are seeming to just going great guns, thank goodness, and having access.

At the same time, we are coming up on October 1st at which time as a matter of legislative policy Space Development Agency will move over to Space Force.

One of the benefits, I think, of Space Development Agency has been their autonomy, their independence. That has allowed that innovation to really grow.

At the same time, I think they and Space Force and all of us will benefit from the discipline, the oversight, and the collective, if you will, of Space Force -- the collective opportunities, the strategies, if you will, and that is part of why we stood up the Space Force.

And at the same time -- and I know there has been some talk already of cyber -- once again, the coming together of commercial and government becomes all the more critical.

Could you just maybe elaborate a little bit on those specific things -- small SDA and its autonomy blossoming
under your jurisdiction -- and then the role of cyber in all
of that?

General Saltzman: You hit on the key principle there
and that is that innovation is going to be critical to the
success of the Space Force.

So I will start with the small businesses. One thing I
can say for certain is that with regards to ideas the more
the better, and if you can look across the broad space
ecosystem and pull in as many ideas as possible, regardless
of the size of the vendor that is promoting that idea, you
are going to be more successful at putting solid innovative
ideas on the plate.

With regards to Space Development Agency, I could not
agree more. Their innovative business model, if you will,
has been very successful in the early efforts associated
with missile warning, missile tracking, space data,
transport layer, et cetera.

When they come over to the Space Force 1 October we
have already been working with them. We have been planning
for months to make that transition seamless, to make it
smooth, and we want to make sure that we do not violate that
secret sauce, which is the innovation engine of Space
Development Agency.

So, if confirmed as CSO, I will be committed to making
sure that we do not lose the goodness as we bring them over.
Now, we need to integrate them and make sure they are a part of the Force Design. That is what is going to make it an effective force when it is finally fielded. But I do not want to lose that innovation engine.

And nothing requires staying at the technical forefront than cyber. It is such a fast-paced changing environment that innovation, our ability to stay engaged with the leading edge of technology there, is going to be essential.

One of the innovative ideas that we came up with is something we are calling Super Coders and the idea is that we take our Guardians, especially the ones who kind of do coding as hobbies, quite frankly, and pull them in, give them advanced training and then put them back into the units so that our operational units have direct connection to people that can code and develop applications that support the mission.

And that is -- it is already paying off. We are seeing some new tools being developed for how to monitor our systems and how to do crew logging activities, for example.

And so those are the kind of innovative ideas to stay on the forefront of cyber.

Senator Cramer: Thank you.

In the last minute, let us talk a little bit about my favorite space topic PARCS radar. As you know, the Cavalier Space Force Station has that beautiful old gigantic piece of
concrete that watches space and missile warning, of course. It has for several decades.

But modernization is important, and some has taken place there already and appreciate that. We were able to put $5 million into the fiscal year '23 NDAA here in the Senate. Hopefully, that survives.

But maybe you could just share a little bit in the closing seconds your vision for that radar.

General Saltzman: Sir, the missile warning mission is a no-fail mission for us. Missile tracking is going to be just as important with hypersonics, and what those radars provide is not just missile warning but the space domain awareness, and I, certainly, will not be able to do my job, if confirmed as CSO, if I have no idea what is going on in space.

And so the more data that we can collect from the sensors on the planet the better we are going to have for space domain awareness and I think the better we are going to be able to do our mission.

Senator Cramer: Thank you, General. Good luck. I look forward to supporting you.

Thank you, Mr. Chairman.

Chairman Reed: Thank you, Senator Cramer.

Senator King, please?

Senator King: Thank you, Mr. Chairman. Are we on?
General, I have to tell you at the outset I have rarely been as impressed with a witness' preparation and grasp of the issues as you have demonstrated here this morning. You have really, I think, thought deeply about a lot of these issues and I want to start with a more conceptual question.

The conventional political position through the '80s and '90s and, perhaps, the early part of this century was we do not want to militarize space. My concern is that this administration may still be holding on to that concept to some extent and that train has left the station, has it not?

We have to react to the militarization of space that has already taken place by our potential adversaries.

General Saltzman: Senator, it is one of my primary objectives to make sure that a war does not extend into space. That is not a good day for the United States.

I believe the best way to create a deterrent capability to prevent that is to have a credible force that can both deny benefits of those actions and impose costs where necessary. That creates doubt in our adversaries' mind that it is a good idea to start attacking capabilities in space.

Senator King: But the implication of what you just said is that we have to have both offensive and defensive capability in space in order to have an effective deterrent.

Is that correct?

General Saltzman: We, certainly, need to defend what
we have and if we are going to protect the Joint Force from
what the adversaries have already put in space -- their
space-enabled targeting -- we are going to have to have
counter capabilities.

Senator King: I appreciate that and I hope that you
will argue that effectively in the administration because
this is -- as I say, this train has actually pretty well
left the station.

I wanted to follow up on a question that Senator Cotton
asked and just sort of tie it up in a bow.

General Raymond said that the joint effort -- unity of
effort between the Space Force and the NRO has worked well
and that the two entities should remain separate. Is that
your position?

General Saltzman: I think because there are two
organizations it allows them to focus on different
requirements and different customer bases. The key will be
to how they collaborate where their mission sets get close,
and I think it is in that collaboration we make sure the
right lanes in the road, the right authorities, the right
funding, so that we are not overly redundant, that that is
going to happen in detailed collaboration.

Senator King: Is there a formal process by which that
collaboration is ensured? Is there -- in other words, are
there monthly meetings or communication back and forth?
Because you can say collaboration but if you are not talking it is not going to happen.

General Saltzman: Yes, sir. There is an executive committee that meets routinely. Both are parties -- and members of the Space Acquisition Council and both are parties to what we are calling the Program Integration Council, which is even a lower level organization committee that gets together to talk about requirements, acquisition strategies, to make sure that we are meeting the mission requirements of both without being overly redundant.

Senator King: Thank you. You had a lot of discussion this morning about innovation, which is -- as you suggest, is absolutely critical to the mission of your agency, perhaps more so than any agency in our government.

We have also talked about -- Senator Cramer asked about smaller businesses. We have had testimony before this committee from innovative smaller companies, particularly in Silicon Valley, who, basically, said we have given up responding to the Pentagon RFPs. It is just too burdensome. The process is too lengthy, too expensive and so we are losing those suppliers.

I would hope that you might meet with -- take your 20 smallest companies that you are working with, pull them together, and have a discussion about how they feel about the process and are there ways that that can be improved.
I am concerned that just the nature of the Pentagon acquisition process may itself be an impediment to smaller companies even getting into the game.

General Saltzman: Senator, we cannot afford to lose those contributions. So, if confirmed as CSO, I would definitely explore opportunities to get their feedback to make this a better process.

Senator King: A final question about -- and you have touched on this -- about culture and recruitment.

You indicated that you are not having any problem with recruitment. I guess one measure of how you are doing is how many Air Force Academy graduates, when they leave, want to join the Space Force?

General Saltzman: More than we have slots for.

Senator King: So that is a good sign in terms of their view of the future in this area.

I said that was the final question but I thought of another one. A lot of your space capability -- we are all -- our military is based upon, in many ways, space capability, GPS being the best example.

Do you not believe, however, that we need to be sure that our military has the capability to effectively deploy and act without GPS? Because that may be the first thing to go in a conflict?

I have heard that they are teaching celestial
navigation at Annapolis. But I want to be sure that that is the case because we could be blinded in the first day of a conflict and we need to have backup.

General Saltzman: Sir, I am a military planner at heart. Our job is to prepare for the worst case scenario. So I agree with you, we always need to plan for contingencies for when things go wrong or when things are not available to us.

Senator King: Thank you. Thank you, Mr. Chairman.

Chairman Reed: Thank you, Senator King.

Senator Ernst, please?

Senator Ernst: Yes. Thank you, General Saltzman, and to your family as well for joining you here today. Congratulations on your nomination and thank you for your service.

General Saltzman: Thank you.

Senator Ernst: I would like to go back to the deterrence discussion.

So the bedrock of Biden's administration -- their National Defense Strategy is a so-called integrated deterrence, and how does this concept account for cross-domain deterrence, so holding terrestrial targets accountable and at risk to deter attack on U.S. space assets?

General Saltzman: The idea is integrated deterrence
leverages a whole of government approach to imposing costs and denying benefits if an adversary were to think about taking actions detrimental to U.S. interests.

So I think in that whole of government approach then on the military side of things you look at all of the domains. If there is a threat against a particular domain or a particular target set then we can take asymmetric action and others to impose costs or deny benefits, and it is the collaboration of the Joint Force that brings power to that full set of capabilities.

Senator Ernst: Very good. And would you support revealing some of our space capabilities for deterrence, demonstrating to our adversaries that we can respond effectively to their attacks?

General Saltzman: You bring up an important point about deterrence and that is if you do not know the capabilities are there it is hard to deter specifically an adversary if they do not know the capabilities there.

The problem is if we think too much about revealing capabilities that are vulnerable that we might be jeopardizing those capabilities. If confirmed as the CSO I would welcome an opportunity in a classified environment to talk about some of those tradeoffs.

Senator Ernst: I would appreciate that.

And going along with that, the Biden administration had
recently announced a unilateral moratorium on certain anti-
satellite tests.

Do you believe that this self-imposed restriction will
inhibit or stop China and Russia then from conducting anti-
satellite tests?

General Saltzman: I think it is a commitment to not
conduct destructive ASAT missile tests, which is currently
the most dangerous thing to U.S. space capabilities in the
form of what the Chinese and the Russians are doing.

So I do not know if it is going to dictate that they
will not do it. I am not hopeful of that. But I think it
does show a commitment to, hey, there are better ways to
test. There are more responsible ways, and I think by
demonstrating and modeling that behavior we do not give up
much because we have other ways to test our capabilities but
we lead by saying we are not going to intentionally create
debris in space.

Senator Ernst: Okay. I can appreciate that.

However, I do not want to continue to set the United
States up by operating from a doctrine of appeasement. So I
do think it is important that we can signal to our
adversaries that we have the capabilities of destroying
satellites. Maybe we do not conduct those. But, again,
maybe in a classified setting, we can talk more about that.

How can the United States go ahead and promote or, as
you said, model the norms of conduct for space? How can we do that and then encourage other countries to do the same? And if they do not, then how do we impose penalties on those countries or states that are violating them?

General Saltzman: I think as we clearly define what it means to be responsible and professional in space activities it will cause -- put into greater relief those activities which are not responsible, and I think by building a coalition of like-minded spacefaring nations around a set of responsible behaviors, again, it will create peer pressure, if you will, for the international community to deem certain activities professional and responsible and other activities to be irresponsible, and that would be the focus, I think, of those tenets.

Senator Ernst: Thank you very much, General Saltzman. I look forward to supporting your confirmation.

But probably the most important question, General Raymond had a daughter that attended Iowa State University. Did any of your children attend Iowa State University?

General Saltzman: Ma'am, they are proud graduates of the University of Missouri. M-I-Z back there.

Senator Ernst: Okay. Close enough.

[Laughter.]

Senator Ernst: Thank you very much, sir.

General Saltzman: Yes, ma'am.
Chairman Reed: Thank you, Senator Ernst.

Senator Kelly, please?

Senator Kelly: Thank you, Mr. Chairman.

General, welcome. Very nice meeting you and your family.

The administration's fiscal year '23 budget request requested a growth in Space Force end strength from 8,400 to 8,600 Guardians and this committee's version of the NDAA supports that request.

The military's emphasis and reliance on global space operations will demand a robust force, moving forward. But there are concerns that budgets for the Space Force are expected to flat line in fiscal year '27.

So what type of growth do you foresee in the Space Force over the next five or 10 years?

General Saltzman: Senator, I would not want to comment on any particular numbers. Just have not had a chance to really dig in and see what appropriate levels would be.

However, I can tell you that, in my estimation, looking at the readiness of the force, there is substantial capabilities in test and training infrastructure that we need to invest in.

If we have exquisite weapon systems, exquisite systems on orbit to provide joint capabilities but our Guardians and our operators do not have the skills, the training, the
experience, they need to make the most out of those systems, then I feel like we are not really fully combat ready, fully ready to do those critical mission tasks.

   Senator Kelly: What are some examples of those capabilities?

   General Saltzman: We do not have simulators that allow our operators to practice their tactics against a thinking adversary. Even if it is a simulated adversary, we do not have good simulators.

   We do not have ranges where they can routinely practice their tradecraft. We do not have the ability to link multiple units together so they can practice the coordination that is necessary to do large force employments, if you will.

   We have just been operating in a benign environment for so long we did not need to necessarily have those kinds of capabilities. And so I think over the next few years we are going to have to look at that and be as specific as we can but provide that kind of training and experience to our operators.

   Senator Kelly: Yeah. I mean, having the equipment and the capability is one thing. Being able to use it is entirely another and being able to simulate operations on a range, operate jointly, as well. I imagine that is something that is on the agenda.
A simulator and range, that is infrastructure. Is there any other infrastructure capacity that you feel you need?

General Saltzman: We are continuing to build and design a more resilient defendable architecture. As I mentioned, we have operated for years in a benign domain and so we were focused more on the capabilities of the payloads and how long they would last on orbit, try to get the most out of the expensive launch that put them into orbit.

Launch prices are coming down. We are doing distributed architectures because they are more resilient. We are trying to think about ways to disaggregate our payloads so they are not as easy targets.

All of that is new investment in new Force Design and so it is going to come with a transition from our legacy capabilities to these new architectures. That will be work that we are doing in the requirements phase and in the Force Design phase and, if confirmed, I look forward to working with the committee to get that balance as we transition from legacy to the new architecture right.

Senator Kelly: Senator King asked about recruiting and you mentioned from the Air Force Academy you have more volunteers to go into the Space Force than you have spots.

In the enlisted ranks, how is recruiting there?

General Saltzman: It is very good. Again, despite the
fact that we are looking for highly capable, highly technical skills, we have more volunteers than we have spots to fill. Just -- again, we are lucky. We are a small force at this point, doing a very specific mission set, and so we can handpick and we are really getting solid volunteers.

Senator Kelly: It is one thing getting people. It is another thing getting the right people. Have you felt the need to do any marketing of the Space Force at this point?

General Saltzman: Lots of people are doing marketing for us. It is working out to our advantage.

We are also very active in going to specific universities where there are underrepresented populations and make sure that we are looking across the board to bring the right people in, the right kind of diversity, the right kinds of diversity of thought, the right backgrounds and skills, and, so far, we have been very successful in doing that.

Senator Kelly: All right. Thank you, General.

General Saltzman: Yes, sir.

Senator Kelly: And I yield back.

Chairman Reed: Thank you, Senator Kelly.

Senator Fischer, please?

Senator Fischer: Thank you, Mr. Chairman, and thank you, General, for your willingness to step forward once again to serve this country. My thanks to your family for
their sacrifices and service as well.

    General, as you know, the Next-Gen OPIR Satellite Program is one of the key components of our future missile warning architecture along with the proliferating constellations of smaller satellites operating in lower orbits.

    Your predecessor, General Raymond, testified in support of this approach before this committee in May. But I am concerned about discussion of alternative proposals that have not been developed with input from the combatant commands and would, ultimately, accept greater risk in the mission of the department that the department itself describes as no-fail.

    I hope this is something you will take a look at and ensure that we continue to pursue a diverse architecture of complementary constellations that meets the warfighter needs for capacity in the schedule.

    Do I have your commitment on that?

    General Saltzman: Yes, ma'am. As you mentioned, missile warning is a no-fail mission and bridging that transition for new capabilities, legacy capabilities, so we have no gaps in coverage is a high priority for me.

    Senator Fischer: Thank you.

    I know the Space Force is in the process of designing the requirements for Phase 3 of the National Security Space
Launch program.

Do you see Phase 3 as being more of an evolution of Phase 2 or a revolution in terms of its structure and capabilities?

General Saltzman: I will be honest, ma'am. I have not really dug into the details of what that strategy proposes. I have had some briefings in preparation for this.

And so I would offer there was a great deal of effort that was put into going out across all of the stakeholders and getting as many inputs as possible so that the strategy would at least learn the lessons of the previous phases of National Security Space Launch, not ignore those lessons and bring those forward into Phase 3.

I think keeping a fair open competition to make sure as many providers, both established launch providers as well as emerging launch providers, was also a key element of the strategy being devised and I think that they are on the right path.

We will see as we get closer to the final decisions on how that strategy plays out. But, if confirmed, I look forward to getting inputs from all the committee members as well as the other stakeholders in this -- in our critical mission set for the Space Force.

Senator Fischer: There has been some criticism of the program, particularly its use of block buys and certified
providers. But I want you to know this committee understands the importance of maintaining assured access to space, especially for the most challenging orbit.

We want to take advantage of the private sector's innovation -- you talked about that earlier -- but we are talking about unique and very expensive payloads, that if they are not delivered perfectly it will result in capability gaps for our warfighters.

So we understand there has to be a balanced approach to that risk. When you say that you want to include all stakeholders, give me examples.

General Saltzman: Certainly, all the launch service providers. Certainly, the people whose payloads we are putting onto orbit. Certainly, the acquisition community has to balance contracting requirements, cost profiling, all of the key considerations when you put an acquisition strategy together -- a procurement strategy together -- making sure that all those variables are accounted for so that we can thread the needle to get the balance that you just mentioned right.

There is risk to mission but there is also cost overruns that we want to avoid. Spending too much for these required mission sets is something that is on my mind. And so I think we just need to pull as many of those key opinions from all the stakeholders together to make the wise
decision for the strategy, going forward.

   Senator Fischer: And how do you balance the risk?

   General Saltzman: It is a challenge because we have to
   -- it has to be a no-fail mission. We have to be able to
   put the payloads we need into the orbits that we require.
   But we need flexibility across that. So it is this balance
   between mission assurance and flexibility, which is always a
   conundrum for military planners.

   But I think the best way to do it is just to have open
deliberate debates about what the merits are on both sides
and make sure you try to get it as close to perfect as you
can.

   Senator Fischer: Last question. Can you talk about
how the Space Force has made changes to deliver capabilities
faster so that it is more responsive to the needs that we
face such as restructuring of Space Systems Command and how
you plan to build on these steps to ensure our space
enterprise is responsive to both threats and technological
changes?

   General Saltzman: With the help of Congress, we
established the Force Design architect in the Chief of Space
Operations. The Joint Requirements Oversight Committee gave
us responsibility as the DOD integrator. This is allowing
us to streamline the requirements development, and if we get
the requirements just right it sets us on the right path for
the major acquisition programs.

We are also considering exploiting what we have and then the commercial capabilities that we can buy as a complement to those major acquisition programs that we have to build from scratch. Through those processes, I think, we have streamlined at least the early phases of that larger complicated acquisition process.

Senator Fischer: When you look at these reforms what benchmarks do you look at in order to determine success or measure success?

General Saltzman: The classic acquisitions are cost, schedule, and performance. But for me, it is about delivering a full set, a full-throated capability, that gives us both the mission agility to do the job, sustainability over time.

Just because it works today in a dynamic environment against a dynamic threat it may not work in the future. And so I am looking at always being able to provide a capability to the President, to the combatant commanders, that give them flexibility in execution of their mission set.

So it is the readiness of the force to meet that broad spectrum of anticipated threats that I am looking for as a measure of effectiveness.

Senator Fischer: Thank you, sir. Thank you, Mr. Chairman.
Chairman Reed: Thank you, Senator Fischer.

Senator Rosen, please?

Senator Rosen: Thank you, Chairman Reed, and for
holding this hearing. I also want to thank General Saltzman
for testifying today, for your service, and for your vast
knowledge in this area.

And I want to talk a little bit about our tech and
cyber challenges in space because our nation, of course, we
know facing increasingly sophisticated cybersecurity threats
in space from disruptive technologies, including the threat
of stealing data, jamming satellite signals, hijacking
satellites, and disrupting internet services.

So I have kind of a multi-part question. And so, if
confirmed, how are you going to work to keep our space-based
assets like satellites safe from cyber attacks? Who are you
going to -- what other agencies interdepartmental or
otherwise?

Do you need to coordinate to protect that all of
government approach on cyber that we have been trying to
work on and how are you using emerging technologies in all
of this?

General Saltzman: Thank you, Senator.

That is an important topic, and watching what happened
in Ukraine to cyber attacks that had space effects
dismantled to some degree showed that there is a large
concern for just what you are pointing out, that our cyber networks are an avenue to disrupt and degrade our space capabilities.

So this is a critical issue for me as well. We have organized one of our units, Delta. Delta 6 is actually dedicated to cyber operations and specifically cyber mission defense of Space Force systems.

We also leverage the authorities that U.S. Cyber Command has to monitor and, if necessary, defend -- actively defend in protection of those capabilities. So those you mentioned, which ones are the stakeholders, who are we collaborating with, U.S. Cyber Command is at the top of that list, certainly.

But what we are doing is training our cyber operators on our mission-unique -- what we call cyber terrain. They are living day to day inside our weapons and the networks that feed them and make them work, and they are monitoring for malicious actions, malicious behavior, and they are continually updating the defenses to make sure they are as secure as possible. I am comfortable that they are actively doing it.

Now, what I want to give them are some of the tools to do the job better and some of the training and education that they are going to need as this very dynamic field moves down the road.
And so I want to keep them at the forefront of that technology to have the tools, the monitoring systems, and the ability to defend our critical cyber networks.

Senator Rosen: Well, you must have read my mind because that is my next question because as a former computer programmer I am very excited to hear you talk about Super Coders. That is very exciting to me.

But it is so important that we think about our STEM outreach, generally, and that, like you said, Space Force provides an opportunity to ensure our Guardians, including the Space Force unit stationed in my state at Nellis Air Force Base, they are fully equipped to address evolving threats in space, and I really hope this new branch of the military can also play a role in promoting what I think are exciting STEM career fields and helping bridge the technological gaps facing military and industry because it is a collaboration.

And it is why I am glad in 2020 the PROMOTES Act, bipartisan legislation I introduced, it authorized DOD to provide STEM education and training to junior ROTC students and it was signed into law as part of the NDAA.

So we hope that gives you a good pipeline.

But considering how important it is, and you spoke a little bit about this, how are you going to do things like the STEM to Space Initiative and other STEM outreach
programs to try to be sure that you are really reaching out
there and letting young folks or anyone, really, know what
an exciting career field this is?

General Saltzman: Yes, ma'am, and thank you for the support.

I agree that attracting the right kind of professionals
with the right kind of acumen on this STEM field of play, if
you will, is critical to our success. And so, certainly, we
do outreach. We go to -- we start in grade schools. We
send people out into grade schools and high schools to talk
about the importance of space.

John Raymond is always famous for dragging our astronauts that are Space Force Guardians along with him to talk about how exciting the space domain is and I think there is a lot of excitement, a lot of buzz, that that creates.

We have established a university partner program
whereby we have 14 universities, maybe 15 now -- it is expanding -- where we go out and try to leverage that diverse, highly technical skill set that that people are seeking in those universities and try to attract them into the force.

We are establishing partnerships for research to stay at the leading edge of cyber through that same partnership program with the universities, and I think we are seeing the
benefits of that on a day to day basis.

I agree it is a critical mission. If confirmed as CSO, I will continue to support that.

Senator Rosen: Thank you. I yield back.

Chairman Reed: Thank you, Senator Rosen.

Senator Scott, if you are ready you are next in order.

Senator Scott: Thank you.

First, thanks for being here -- I think this is working -- and congratulations on your nomination.

General Saltzman: Thank you.

Senator Scott: Thanks for your service and thanks for everybody who works with you.

Since the Space Force is relatively new and the department is still working out its operations, can you describe the role you have been nominated for in terms of how the Space Force enhances the U.S. ability to deter and, if necessary, defeat our enemies, especially Communist China -- Communist China and Russia -- but also any aggressive state that seeks to use Space Force against us or to use space against us?

General Saltzman: Yes, sir. Thank you for that question.

It is an important foundational piece for the reason there is a Space Force and I take that very seriously.

Every American benefits from the capabilities that are
inherent in space and U.S. space capabilities. Whether it is the navigation apps on their phones, solid communications, weather reports, digital banking access, all of these are critical things you may not see on a day-to-day basis because you do not see the satellites. But that space -- those space effects are critical to every American.

I think it drives the economy. It spurs technological advancement. It, certainly, underpins the military capabilities. We just could not live without our space capabilities. The American way of life now is inextricably linked to space capabilities.

So it is the Space Force that has to address the emerging threats. China is that pacing challenge. Russia, certainly, is a challenge. They have invested heavily in the ability to destroy -- not just disrupt or degrade but to destroy our space capabilities, and the Space Force wakes up every single day dedicated to protecting our vital interest in space but also protecting the Joint Force from the adversaries' designs of space-enabled targeting, space-enabled capabilities.

And so we are committed to developing the operational concepts -- the on orbit assets, the tactics, the training -- to make sure that we can protect that capability.

Senator Scott: Let me ask a question. So what you just said is what I believe also. I believe Communist China
and Russia are out to defeat us. Their governments -- not
the people, but their governments actually do not like our
way of life.

Why does the public not know that and what can you do
in your role or what should -- I mean, what can you do to
geret people to understand that they actually -- I mean, you
are trying to prevent bad acts. That is what you do for a
living.

General Saltzman: It is, certainly, a matter of scale.

When I talk to friends and family back home I think there
is a recognition that this -- the world is not safe. I
think there is recognition that there are countries out
there that do not have the same ideas we do and that they
are working actively to try to deny us those interests.

From a space perspective, it is a little bit harder to
get support around something you do not see on a day-to-day
basis, and with the satellites a little bit out of view
sometimes they always do not make the connection that, hey,
it is the satellites that they are trying to attack and that
prevents us from doing X, Y, and Z.

So it is education. It is us getting out. It is
connecting with the public. It is connecting through
speeches and academic interactions to make sure that those
connections are clear.

Senator Scott: Do you think that is part of your role?
General Saltzman: I do.

Senator Scott: Can I ask you another question? I assume you are going to play an active role in budgeting and the acquisition process. So can you talk about how the department is going to use the most of any readily available commercial technology or products so you can be more -- with the money that we allocate to you, you are going to be more efficient with this and get more things accomplished?

General Saltzman: Yes, sir.

With the help of Congress, the Chief of Space Operations has been designated as the Force Design architect, have a further responsibility in the joint requirements process to be the DOD integrator. This gives us an important leadership role in setting the requirements and then working with the acquisition community to make sure that we meet those requirements based on all the capabilities that are available to us.

And Space Systems Command is convinced that if we have the ability to exploit existing capabilities that would be great. But we also have to be able to then buy commercial capabilities. It might be cheaper to procure what is already available through the commercial sector and then only build what we must.

Senator Scott: Do you feel comfortable that you are
doing that?

General Saltzman: I do.

Senator Scott: Okay. If you find problems, I think everybody on this committee would like to make sure that we are not creating roadblocks for your ability to use readily available technology to make sure our tax dollars go further so you can do more.

So if you would let me know and let this committee know where we are creating any bottlenecks and what we could do to make it easier for you to use commercially ready available -- will you commit to doing that?

General Saltzman: If confirmed as CSO, it is a top priority to make sure we get the most out of the commercial private sector.

Senator Scott: Now, I am sure that senators from Colorado and Alabama think they are probably the best state for Space Force.

But, I mean, do you really believe that you are doing enough in Florida? Do you think that if you had -- you can wave a magic wand you would just do almost everything in Florida?

General Saltzman: There is -- sir, there is no question that Florida has an important --

Senator Scott: Easy answer.

[Laughter.]
General Saltzman: -- rich history of space support. The Space Coast is vital to our success as a service. Now even the Guard capability, the space electronic warfare capability they have, vital. Florida remains an important aspect of the Space Force capabilities.

Senator Scott: Can I ask you a question? I will ask -- just be real quick.

How is the Space Force working with not just Florida? I know we have a -- our National Guard has an interest in the Space Force and we are doing a lot of stuff. Is that working? Are you picking National Guards around the country that -- I would like you to do everything in Florida but I do not think that is necessarily realistic.

But are you doing that now?

General Saltzman: We work with the Guard very closely on which mission sets, what we need. If confirmed, my responsibility would be to define those operational requirements.

I work very close with the Guard Bureau, with the Air National Guard, to see if there are capabilities that make sense to go to the Guard, especially where it is maybe surge capability or something we do not need on a day-to-day basis. We work very closely in collaboration with them to get that right.

Senator Scott: Thanks.
General Saltzman: Yes, sir.

Chairman Reed: Thank you, Senator Scott.

Senator Hawley, please?

Senator Hawley: There we go. Thank you, Mr. Chairman.

General, thanks for being here.

That is enough talk about Florida. Let us talk about Missouri.

[Laughter.]

Senator Hawley: Did I hear you say an answer or two ago that your children were graduates of the University of Missouri?

General Saltzman: Can I get an M-I-Z back there? I do not know.

[Laughter.]

Senator Hawley: All right. Awesome. There you go. I am feeling a lot better now, Mr. Chairman.

Let me ask you about the pacing threat. You mentioned just a second ago the pacing threat -- the pacing scenario. So the Secretary of Defense has designated China as the department's pacing threat, PACOM as the pacing theater -- the priority theater -- and then the Taiwan contingency as the pacing contingency.

Let me just ask you, first off, do you agree with those designations?

General Saltzman: I do not see anybody more dangerous,
more committed to attacking U.S. interests in those areas than the President has defined.

Senator Hawley: Very good.

And do you agree that the threat of a potential Chinese invasion of Taiwan is something that we need to be concerned about this decade in the 2020s, not just 2030 and beyond?

General Saltzman: I think the observables show that there is a clear indication that they are moving in that direction very rapidly.

Senator Hawley: So let me ask you this then. Would you commit to making it your top priority to ensure that the Space Force is ready to help deter China from aggression in PACOM, generally, and then specifically with regard to the pacing scenario in Taiwan?

Would Space Force be ready? Would you help them get ready to make sure we are able to deter a Chinese invasion of Taiwan?

General Saltzman: If confirmed as the Chief of Space Operations, there will be no higher priority than maintain the readiness of our force to meet all of those contingencies, the Chinese threat first amongst them.

Senator Hawley: Very good. Thank you for that.

Let me ask you a bit more specifically, what kind of space capabilities do you think would need to be prioritized in order to deter a potential Chinese invasion of Taiwan? I
mean, walk us through your thinking there.

    General Saltzman: I look at this, sir, from a two-pronged approach.

    We have to be able to protect the capabilities that are enabling our Joint Force today whether it is navigation and timing, whether it is satellite communications, the missile warning architectures that provide indications and warning of attack.

    The structure of our Joint Force is built presuming we have access to those space capabilities. We must preserve them. That requires a shift to a more resilient, defendable architecture to provide that level of mission resiliency that we need.

    But it is also important to realize that the Joint Force is under a threat umbrella by space-enabled capabilities of our adversaries and they will not be able to meet their military objectives if we allow the Chinese in particular to use the space-enabled targeting capabilities that they have at their disposal.

    So in order to be a deterrent, to prevent this from going into a war that extends into space, we will have to be resilient and we will have to have the offense and defensive capability necessary to create a credible deterrent force.

    Senator Hawley: You mentioned resiliency several times now. So let me just ask you, do you think that we are
currently resilient enough in space and, in particular,
resilient enough to absorb losses from China or Russia in a
conflict with either?

General Saltzman: I think the best way to state that
is the current attacks that we are seeing are not sufficient
to take out our capabilities. We are resilient today.

As soon as we go into a crisis contingency, I do not
believe we have designed our systems to operate in that
level of contested environment and so we need to change to a
more defendable architecture to account for the fact that
space has shifted from a benign environment to a more
contested warfighting domain.

Senator Hawley: What does a more defendable
architecture look like?

General Saltzman: I think we can look at some of the
observations we are seeing in Ukraine, that a distributed
architecture where there are more satellites with
proliferated missions that is harder to attack. Big single
satellites are much easier to attack than a distributed
proliferated constellation of capabilities. It becomes a
tougher targeting problem.

Senator Hawley: Let me ask you this.

In your personal opinion, does the United States have
the anti-satellite weapons that we need, whether that is to
deter China or Russia or, if necessary, to defeat them
should deterrence fail?

General Saltzman: I think the best way to answer that is for the current conditions I think we have suitable capabilities. But I think the security situation is changing dynamically and I would really appreciate the opportunity to talk with you in a classified environment on the specific details.

Senator Hawley: Let me ask you, just more broadly, if you are confirmed what steps would you take to ensure that we are doing everything that we have got to do in order to improve our counter space capabilities?

General Saltzman: If confirmed as CSO, I will lean on the Force Design architecture role that Congress has given to the Chief of Space Operations. We are doing Force Design analysis.

This is rigorous data analytics that show what one constellation against a modeled threat would do and we run thousands of permutations to really see what the optimal configuration is.

I am committed to continue doing that so that we can, one, buy the systems we need and not be overly redundant or have too little resilience in the face of the adversary.

Senator Hawley: Very good. General, thanks for being here.

General Saltzman: Thank you.
Senator Hawley: Thank you, Mr. Chairman.

Chairman Reed: Thank you, Senator Hawley.

General, thank you for your testimony.

Senator Sullivan, I have been told, is trying to get here but -- and that will give me an opportunity to ask one more question, and if he is not here by the end of my question then I will call the hearing to a close.

But this question has been sort of alluded to and, in some cases, directly posed to you throughout the hearing. What are the critical hardware and software gaps you see on the ground to effectively -- or in the air to effectively inhibit your mission?

General Saltzman: Yes, sir.

That analysis is ongoing. But there is some initial thoughts in terms of how do we build an architecture on the ground that is resilient to attacks from Russia, from China, from other malicious cyber actors, and we have not had the need to build quite the level of resiliency or redundancy on the ground in the past as we see necessary today.

And so when I look at the software, the monitoring of those networks, I think there are still some gaps that we need to fill. When I think about space domain awareness and the number of sensors worldwide that we are going to need in order to effectively evaluate and determine what is on orbit and where it is and what it is doing and then have the tools
-- the software tools -- on the ground to take all that data
in and turn that data into information and decision-quality
information, those are some near-term issues that I think we
are going to have to address from a software and a hardware
standpoint.

Chairman Reed: Well, thank you very much, General.
Thank you for your service. Thank you for your very
compelling testimony today.

We look forward to your confirmation in the next -- as
soon as possible. And thank your family again for the
support they have given and the service they have also
given.

With that, and an indication that Senator Sullivan will
not be joining us, I will adjourn the hearing. Thank you.

[Whereupon, at 11:07 a.m., the hearing was adjourned.]