

Space Power to the Warfighter
Remarks by General David Goldfein Chief of Staff
of the Air Force
At the Air Force Association Mitchell Institute for
Aerospace Studies Friday Space Group Seminar
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MR. PETER HUESSY: Good morning, everybody. On behalf of the Mitchell Institute and the AFA [Air Force Association], NDIA [National Defense Industrial Association] and ROA [Reserve Officers Association], I want to thank you. My name is Peter Huessy, and this is the inaugural seminar of our fourth year of our Space Power to the Warfighter series. I want to welcome you all here, and in particular our Chief of Staff of the Air Force.

I also want to say a special hello to Congressman Jim Bridenstine, Congressman Jim Cooper, and our Chairman Mike Rogers, who is here today; as well as acknowledge our friends General Teague and General Horner and General Basham, as well as our former Chief of Staff of the United States Air Force, General Fogelman, who stood at this podium, I think, six times during my seminar series over the last 30 years. It is nice to see him again. Also, the former Secretary of the Air Force Whit Peters is here today. Thank you, sir, for being here. He is also, as you know, the Chairman of our Board at AFA.

Our next breakfast is March 2nd with General Hyten, and then we're going to have one on the 31st with General Buck, and then also a special event on the 30th on space policy, which we'll get you. Our nuclear series begins April 20th with Steve Blank and Mark Schneider. On April 10th and 11, in Crane, Indiana, we have our first triad event of the year.

I want to thank, particularly, the wonderful staff that I work with at Mitchell, particularly Abby and Nicole and General Deptula, who will be introducing the Chief. I also want to thank my partner, Kath Ryan, and my other boss, Doug Merkey (ph), who does really good work at Mitchell. I want to thank all of them.

For those of you who are not on our mailing list, make sure you get on it so we can get you invites. I wanted to thank all of the people who make this possible from the Chief's office. Thank you very much. With that, I'd like to introduce my boss, the dean of the Mitchell Institute, General Dave Deptula.

(Applause).

GEN. DAVID DEPTULA: Good morning, ladies and gentlemen. Let me offer

my welcome to each and every one of you. You all have come here to hear the 21st Air Force chief of staff, so I'm not going to spend too much of his time introducing him. What I would like to mention is that while General Goldfein is currently the Air Force Chief of Staff, he's an expert joint war fighter having effectively employed joint air, space and cyber forces in the execution of joint force operations in the Mideast. Then he returned to the Pentagon to direct the Joint Staff before moving on to top leadership positions in the Air Force.

Today you're going to hear his perspectives about space, a domain that is pervasive in the successful execution of every combatant command's operations, as well as our nation's, and indeed the world's economies. General Goldfein has a preponderance of responsibility and oversight for the health, well-being and viability of our space infrastructure, as the Air Force is the primary custodian of America's space-based military capabilities. So without further ado, please join me in welcoming General Goldfein to the podium.

(Applause).

GEN. DAVID GOLDFEIN: Thanks, Dave, and good morning, everybody. Or as they say in my home state of Texas, howdy. It really is an honor to be with you and I want to thank Dave and the Mitchell Institute for hosting this Space breakfast series. The dialogue was really captivating in 2016 and I can't tell you how honored I am to kick it off in 2017.

The timing couldn't be better. For one, I just returned this week from a trip to Vandenberg and Los Angeles air force base where I met with our leaders and warriors from 14th Air Force Space and Missile Systems Center and our industry partners, and I'm eager to provide you a trip report. This September marks the 35th anniversary of Air Force Space Command. In those 35 years we've formed the command and led the integration of space into everything we do, including leading the joint war fighting integration of space across all domains and missions. So it's perfect timing to kick off 2017 with, perhaps, the most important debate we will have this year--the future of space.

Chairman Rogers, Congressman Cooper, Congressman Bridenstine, I want to thank you for your personal interest and your passion for this critical joint war fighting domain. The series of hearings that you have had, and will have, are absolutely critical. And, I hope you'll include me, as the leader of the service with the responsibility for organizing, training and equipping and presenting ready space forces to a combatant commander, in those important discussions.

Whether you're here this morning representing Congress or industry, allied partners or academia, or one of my fellow joint chiefs, I want you to know a couple of things up front. First, I'm grateful, because providing a safe, secure, reliable nuclear deterrent, defending our homeland, assuring allies and partners, and defeating our enemies, is a team sport. So I appreciate the importance of all of us working together.

Second, I want to be candid and tell you when it comes to space, be confident in your Air Force. We've been the stewards of this domain since 1954, and as the 21st Chief of Staff in the 21st century, I can assure you we'll remain passionate and unrelenting in our stewardship for the next 53 years and beyond.

I started my trip this week on Sunday at Vandenberg and spent the day with Lieutenant General Dave Buck and his warriors from 14th Air Force. Dave has two bosses. He reports to me through General Jay Raymond at Air Force Space Command in my organize, train and equip role; and he reports to General John Hyten at U.S. Strategic Command, as his component commander for space operations. He is our nation's lead warfighter for space.

By the way, this is exactly the way I reported as the air component commander in Central Command, working for General Mattis at the time. I reported to the chief of staff through my boss at Air Combat Command, and to the combatant commander as his lead Airman. Dave and his team of joint warriors provide our war fighters with unfailing support from optimizing constellations to cataloging and tracking over 23,000 objects in space. I saw the benefits of this first-hand as the CFACC.

I spent Monday with the 30th Space Wing and toured the incredible facilities there. When it comes to space launch and ICBM test architecture, this place, the Western Range infrastructure, is truly a national treasure. During the tour, I was able to see an Atlas V rocket preparing for launch, and I met the leadership of United Launch Alliance, who have successfully launched now over 160 national security payloads into orbit.

I also met a young Airman at the site, a 'dirt dog' from a civil engineering squadron. You know the type: 6'3", arms as big as my legs, square jaw. He told me what it was like to drive his bulldozer into flames that topped 40 feet all around him as he built a fire break saving a rocket worth hundreds of millions, and launch infrastructure worth billions, with a bulldozer.

Can I repeat that? He drove into the flames. I will tell you, until seeing the extent of the fire zone that we had last September, I had no idea how close we all came to a national disaster, and how heroic our 30th Space Wing Airmen, and the over 1,200 firefighters who rallied at Vandenberg, were on that day.

I also got to visit the schoolhouse, where our newest Airmen are training to become space operators, and see the instructors; imparting 54 years of knowledge on our newest warriors. I have to admit, my degree in philosophy at the Academy started to show itself when compared to the scary smart Airmen that I met there.

(Laughter).

From Vandenberg I traveled to Los Angeles, the home of our Space and Missile Systems Center, under the steady leadership of Lieutenant General Sam Greaves. Sam and his team walked me through every one of our acquisition programs, from military

satellite communications to nuclear command and control to intelligence gathering to position, navigation and timing. That's an amazing inventory, and over 90 percent of what DOD has in space is Air Force.

Let me repeat that. Over 90 percent of what DOD has in space is Air Force. We will own the high ground and we will use it to win the fight.

It's extraordinary, actually. I don't think anyone would trade our space capabilities with any other nation on the planet. We have achieved this with our industry partners despite eight years of continuing resolutions and single-year budgets we're forced to execute in the last half of every year.

On Wednesday, I spent the day walking the floor of SpaceX and Boeing to put some eyes on the newest technology on the planet. I have to say, walking those floors made me proud to be an American, let alone chief of staff of the greatest Air Force on the planet. At SpaceX they have a vision. They're going to Mars, and I believe they're going to do it.

As an Airman, I love it. It speaks to me. It's in our bloodline. Mars? Bring it. We've been breaking barriers since 1947.

At Boeing, I saw the most sophisticated satellites our nation has ever produced. In one room a technician was on a tall ladder working on a satellite and fastening cables to the infrastructure. I don't know why, but that scene just struck me. There was something very human about that moment in a lab full of sophisticated machines: a master craftsman, meticulous to the final detail.

So ladies and gentlemen, I stand here today as chief of staff, in awe of our space warriors and industry partners, and enormously proud of our achievements. As the stewards of this critically important domain, rest assured the spirit of Benny Schriever is alive and well in the United States Air Force. This brings me to a war story.

General Deptula taught me that the rule for war stories, of course, is they only need to be 10 percent true, but I swear this one is legit. It took place just a few weeks ago in early January. We had a remotely piloted aircraft, an MQ-9, and it was flying an armed reconnaissance mission over Iraq when it reports some satellite communications, or SATCOM, interference affecting its ability to carry out the mission.

Previously we might have scratched our heads, trouble-shot the issue from afar, maybe done a control-alt-delete, and worked our way through it, but not this time. This time a report went straight to the floor of the Combined Air Operations Center, my old headquarters at Al-Udeid where we have a space team integrated into the mix. The report basically says, SATCOM is getting interfered with, be advised.

So we get this report and feed it to the space operators. Why? Because, today, we prioritize SATCOM-linked monitoring as a combatant commander priority, with our

CFACC that serves as the space coordinating authority. So, the team senses it and starts working a solution, literally within a minute.

We call these SATCOM interferences offending signals. We find it, we characterize it, and we track it back to its source by a two-person team of Airmen. They take this offending signal, use our tactics, techniques, procedures, and continue the mission while General Buck's Joint Space Operations Center at Vandenberg identifies the offending party. It turns out this time the offending signal came from a Coalition partner that had their equipment configured wrong. Because the CAOC space team has been building partnership capacity, they're able to turn to that nation's liaison on the ops floor of the CAOC and say hey, knock it off.

And, then we taught those partners how to reconfigure and validate their settings, keeping it from happening again. Just six months ago this would have taken days, maybe even weeks, to sense, ID, track and resolve; or said another way, find, fix and finish. But, using the integration of space teams into the ops floor, and by using our tactics, and by building relationships with joint and allied space partners, we cracked the code in minutes, within the mission carry-on.

It means we're eight times faster now at how we identify and characterize interfering signals. We've gone three consecutive months now without a mission abort due to interference. And, that two-person team that found the offending signal, one was an Airman who graduated from high school 18 months ago.

So, while we're doing great things in space, there's always room to get better, and we can never get complacent in this domain which remains a harsh and unforgiving environment. This year we're celebrating 70 years as a service, with decades of intense learning and adaptation in the air domain. So, we're taking what we've learned over the past 54 years about space and applying the same disciplined approach toward getting better.

Our vision is to first normalize space operations as a joint war fighting domain no different than any other war fighting domain. Only when we think about and talk about space in the same way we talk about operations in the air, on land, at sea, or in cyber, will we move in the direction of truly integrating space operations across all war fighting domains; because the opposite of integration is separation, which moves us in exactly the wrong direction as a joint team.

We cannot allow space to have its own unique lexicon with its own unique org chart, with its own unique force or its own unique way of operating. We'll be hard pressed to find a mission the joint force performs that is not heavily reliant on the integration of space capabilities. So in my opinion, space is a joint war fighting domain that we must normalize and think about no differently than any other domain in which we operate.

As a point of clarification, there really is no such thing as war in space, it's just

war. But, war can extend into space, and it isn't a stretch to imagine how a terrestrial conflict can migrate to space. Our adversaries can now offensively threaten our space assets, as we saw when China launched an anti-satellite missile years ago, creating a debris field every nation will contend with for all time.

But, it doesn't mean we have to respond in-kind. We can respond in a host of different ways. As the Joint Chief responsible for organizing, training and equipping and presenting ready forces to combatant commanders, I believe it's my job to ensure that we maintain resiliency and options for the joint force and for the commander-in-chief. An attack can affect the way all kinds of things work: cell phones, gas pumps, ATMs, traffic lights, precision navigation on air, land or at sea, three billion worldwide GPS users and countless commercial assets. I'm actually thinking of starting a new information campaign: send a tweet, thank an Airman.

(Laughter).

You heard it here first at AFA. Air Force-operated space-based systems cast a wider net -- think about this -- than all international news networks combined, and underwrite substantial aspects of everyday life. So, the Air Force is responsible and committed to securing these assets. We put those satellites into operation, we fly their orbits, we track their slots, we de-conflict their airspace. We're always there and we intend to keep it that way.

As General Hyten recently stated during a speech at Stanford, the way to avoid war is to prepare for it. Prepare for it we have, and prepare for it we will. As we continue our dialogue about the future of space, I'd like to offer a framework for our discussion to help organize the dialogue in a way that moves us forward in the 21st century.

First, we must discuss how we organize, train and equip ready space forces to present to combatant commanders who are charged with fighting the force. Traditionally, this has been the role of the service with the preponderance of the force. Since, today, over 90 percent of the space force is Air Force, this would naturally fall on us.

In this light, we are eager to be named the lead service for space and will ensure that we not only organize, train and equip Airmen, but all Soldiers, Sailors, Marines and Coast Guardsmen who rely on space capabilities to accomplish our joint missions. While we already share some training venues and fulfill joint space war fighting positions, I am eager to expand joint presence in our formations to ensure we address my fellow joint chief's requirements, no different than I did as the space coordinating authority in Central Command under General Mattis, and that our CFACCs around the world do today in every combatant command.

Second, I believe we need to discuss how we intend to operate in space. Under General Hyten's leadership, and now continuing under General Jay Raymond at Air Force Space Command, we built an Enterprise Space Vision designed to integrate space capabilities in ways that continually improved how we operate and integrate. Just like we

fight in the air with a family of systems and a networked approach to warfare, so must we fight in space with a similar family-of-systems approach.

In keeping with our intent to normalize space as a joint war fighting domain, we are updating the Space Enterprise Vision into a concept of operations, or CONOPS, to ensure it is presented in the lexicon of joint war fighting without space specific or unique jargon or concepts except where absolutely necessary. It is important to note here this vision is shared with the National Reconnaissance Office, the NRO, which is what makes it so powerful. General Jay Raymond is working hand-in-hand with Director Betty Sapp to take this from vision to joint war fighting CONOPS integration.

Third in the framework, while not my job jar specifically, I do think we need to have a discussion at a strategic level about how we as a nation build and then issue sound policy and strategic guidance. There's some really good news here. In my career I have yet to meet a leader who better understands the importance of crystal clear commander's intent and guidance than our current Secretary of Defense. As the Central Command commander he issued succinct but easily understandable commander's intent that we then executed as component commanders. So, I'm looking forward to offering Secretary Mattis my best military advice for how to integrate the Department of Defense with the national security team and Congressional oversight committees to ensure we receive solid guidance on which to execute.

Finally, on the fourth, which I've saved the best for last, we have to have an honest discussion about acquisition. In a recent hearing Chairman Rogers held up an organizational chart showing over 60 organizations involved in space acquisition, with any one of them being able to either slow down or stop progress. Ladies and gentlemen, this is no way to run a railroad. Sixty voices cannot, and will not, produce a coherent acquisition strategy.

However, I caution us not to look at the fix as merely a reorganization of the boxes and lines on an organizational chart. Many of us in this room have been through reorganizations that were hugely disruptive and produced little value as the organization resettled into the same way of doing business. The first rule of bureaucracy is to protect the bureaucracy. Or, as Dr. John Hamre stated in his testimony, build a moot.

I would offer that we should adopt the age-old philosophy that form should follow function. In my opinion, we don't actually have an organizational problem, we have an authority-for-decision-making problem. We must make some tough, but, essential decisions about who is responsible for setting space requirements and who is responsible for acquiring against those requirements.

And, of course, these requirements must align with the policy and strategy guidance as determined and communicated by our national security leadership and Congressional oversight. Ultimately, our challenge is staying ahead of any potential adversary, which we're ready to do. And, we'll do it even better given the right authorities and the responsibilities built upon agile acquisition.

So if you sense a little passion today about this business and the Air Force's role in space, then I hit the mark. Benny Schriever, the father of Air Force space; Thomas White, our fourth chief of staff who coined the term "aerospace" that defined our future; Jerome O'Malley, the guy most responsible for Space Command; Tom Moorman, Chili Chilton, Bob Kehler, John Hyten--all space giants. This has been our business since 1954, and I hope it will remain so through 2054. And, I hope when we celebrate our 100 year anniversary in space we do it at our AFA convention on Mars, because SpaceX did it.

(Laughter).

And, I hope most of us here will look down from heaven and have to duck, because that dog-gone United States Air Force keeps sending rockets to the heavens and beyond. Ladies and gentlemen, this is as important a dialogue as I will have as the chief of staff of the Air Force.

Once again, I thank Chairman Rogers and Congressman Cooper for leading the debate. Dave, thanks again for inviting me to speak.