

071117 Air Force Association Mitchell Institute for Aerospace Studies with General Michael Holmes, Commander of Air Combat Command on “The Status of Air Combat Command.”

MR. : Ladies and gentlemen, it’s my pleasure to introduce to you the AFA President, Air Force General Retired Larry Spencer.

(Applause).

GEN. LARRY SPENCER: Thank you, and good morning to everyone. I want to thank you all, first of all, for being here. This has grown into a great forum and a great opportunity to bring all of the key players together in something we all have in common, and that is to promote a dominant Air Force. So we get to bring together industry leaders, the press, members of Congress, staffers, think tanks, bring together our international partners, bring together Air Force leaders, to talk about something that we’re all interested in, something that we all love, and that’s the United States Air Force. So thank you all for being here.

We’re really happy today to have with us General Holmes. I’ve known him for years as “Mobile Homes,” but now I call him General Holmes.

(Laughter).

We’re really happy to have General Holmes here. General Holmes grew up in eastern Tennessee. I won’t read his bio, but he’s an interesting guy, as most of you know.

He was commissioned through OTS and he cut his teeth on the F-15C Eagle, eventually earning his patch at the Air Force’s prestigious Weapons School. He has commanded a squadron group, and twice at the wing level. His commands were across Air Combat Command, Air Education Command, and he spent tours in Iraq and Afghanistan. General Holmes’ father was an Army reserve colonel, and his son is a D.C. guardsman.

General Holmes and I have several things in common, I’ll just mention a couple. One is we both love to cut budgets.

(Laughter).

There’s just something about that that we both enjoy. General Holmes, though, as we were walking up, is now in a dilemma because all the cuts he laid into Air Combat Command, now he’s got to come argue for them back. So he’s in an awkward position now.

But also General Holmes and I share a love for guitars. Although I’m more of a

rock R&B kind of guy, and General Holmes is more of a folk hillbilly -- that was his term not mine.

(Laughter).

But nevertheless, we both have a love for guitars. More than that, though, we have a love for the Air Force.

Many of you in the room have had tours in Air Combat Command. Every command in the Air Force is great. The Air Force is a great service.

But there's something about Air Combat Command, those of us that have been there, it's just a special command. It has a special mission. I know when I was there the saying was "So Goes ACC, so Goes the Air Force." I don't know if that was true, but that's what they told us in ACC anyway.

But I can't think of a better person that the Air Force could have picked to take on Air Combat Command. So without further ado, ladies and gentlemen, please welcome to the podium General Holmes.

(Applause).

GEN. MIKE HOLMES: Thanks, everybody. It's great to be back in Washington from Langley, instead of being here all the time.

(Laughter).

General Spencer, Secretary Peters, Air Force Association, thanks for putting this on. There are a lot of people in here that have raised me, so if you don't like me or my remarks I can point you out to the different people that you can hold accountable for it that are here that have had a part in it: from Chuck Wald, I'm sitting next to from my first assignment in the 71<sup>st</sup> at Langley and was my operations officer and taught me the way that I should go as I came up; and lots of friends and here and lots of people that have helped shape me.

General Spencer, I'd like to talk about being in an Air Force that is an Air Force where a kid from southeast D.C. and a kid from a dairy farm in east Tennessee can grow up and go to OTS and be four-stars in the Air Force. I'm proud of being a part of that organization where you can compete with and against the best from all over the country and make your own way in the world, and have people that help you and give you the opportunity to take on everything you can do. So I'm still really proud of you, General Spencer, and all you've done and I'm glad that you continue to service.

People ask my, how do you like it down there, Mobile? How do you like it down there at Air Combat Command? My answer is, everything that comes across my desk is fascinating, and everything that I ever complained about my whole life is now my fault.

(Laughter).

So really, what could be a better job than that? But what I want to tell you a little bit about is where ACC is now. The short version is, if you grew up thinking of ACC as a command that managed the states-side fighters in two halves, east of the Mississippi and west of the Mississippi, it's not your grandfather's Air Combat Command anymore.

It's about 100,000 Active duty airmen in 32 wings, and about 30 Reserve component wings that are aligned against it and are integrated in everything we do. That proportion is about right. About half of all the combat capability Air Combat Command brings to the world is through our Reserve components and the Guard and the Air Force Reserve.

We have a simple mission, and it's to control and exploit the air and space. I say it that way because we're not primary in space. But as we've learned over time, a day without space is a bad day for Air Combat Command. And a day without Air Combat Command is going to be a bad day for people that are trying to defend space assets and take care of them.

So we control the air and space. It takes five missions to do it across the Air Force, not just air superiority but global precision attack, rapid global mobility, the ISR and the command and control all working together to do that. Control of the air is still essential, and it's not a birthright.

As you look at what's happening in Syria, we have guys flying around in circles on top of a coalition ground force while their RWR, their radar warning receivers, are going off from Russian aircraft that are locking them up. At the same time, they're watching the Syrian aircraft to make sure it doesn't come too close to the friendly ground forces that we're providing. We've let ourselves kind of get into a world where the boundaries are muddled and we've put our guys in some really tough positions.

ACC does everything it does as part of a team. I do want to talk about how we operate in partnership with the bombers from Global Strike Command, and under the umbrella of nuclear deterrence that they provide. We operate with all the assets given us by Air Force Space Command for protected comms, for overhead infrared, and for precision nav and targeting.

AMC takes us everywhere we need to go, particularly the tankers. When you look at the world we live in, without those tankers we're a very limited force. We depend on Air Force Materiel Command to sustain us, Air Education and Training Command to give us our folks, and we fight alongside AFSOC every day.

So we control and exploit the air, but we do it as part of a team. We still provide forces, but we don't just train them in the CONUS and send them forward. So we still provide forces through service components to the combatant commanders around the

world, and we organize, train and equip three of those service components, and support them, and I'll work through it.

What's different is we do 24/7 combat support every day from home station and ACC units. The Distributed Common Ground System enterprise that provides the intelligence support and the processing and dissemination of products to all the COCOMs around the world, that wing is at Langley in the 480<sup>th</sup> and those organizations all work for Langley. And the persistent attack and reconnaissance enterprise, the RPA enterprise at Creech, are flying every day remote split ops from Creech in support of combatant commanders all over the world.

In addition, we plan and program five of the Air Force's 12 core functions: air superiority, global precision attack, global integrated ISR, personnel recovery and combat search and rescue, and then command and control. Ultimately, we execute those through numbered air forces or organizations like that. So 1<sup>st</sup> Air Force down at Tyndall is primarily led by the Air National Guard and Lieutenant General Scott Williams works all the day-to-day alert coverage that protects the United States. He can step it up or down in a crisis, and then provides Air Force forces in defense support for civil authorities to NORTHCOM.

9<sup>th</sup> Air Force at Shaw, Major General Scott Zobrist is more of a traditional OT&E guy. He has fighter forces, command and control forces, the JTAC combat controllers and those guys on the east of the Mississippi. But he's leading our Air Force efforts to stand up a persistent standing joint task force capability, and to train airmen so that we'll have a plug that's ready to go run a joint task force, or plug into another service-led joint task force, and bring airpower to make it successful.

12<sup>th</sup> Air Force at Davis-Monthan, Lieutenant General Mark Kelly leads our component to SOUTHCOM, Air Force South. He spends a lot of time in South America. He also has the forces west of the Mississippi.

We have AFCENT and Lieutenant General Harrigan, who is running the day-to-day war in Syria and the Levant, and in Afghanistan and supports AFRICOM with his forces as well. He's involved in war every day.

And then the Air Force Warfighting [Warfare] Center down at Nellis ties all that together. So they train crews in Red Flag at the graduate skill level. They run our weapons school. They do our tactics development, and our operational test and evaluation, and they figure out how to make all these pieces of the Air Force work together.

All of that is supported by the Air National Guard and the 10<sup>th</sup> Air Force of Air Force Reserve Command, which brings the fighters there. So it's a giant command. There's a lot going on. We're still in our traditional force provider role, but also involved every day in operations around the world.

At Air Combat Command, we have three focus areas. We're focused on rebuilding our readiness at the squadron level as fast as we can do it. We'll talk about why and what's changed in the world.

We're going to do that by making our airmen ready, their families ready, and the weapons systems they operate ready. We're focused on building leaders that can win in joint war fights. One of the results of fighting a 15 year war where one bad bomb had much more negative consequences than passing up the opportunity to drop 10 good ones, led to a very tightly controlled war where every bomb is controlled and judged at a higher level.

That has led to a leadership environment where we've taught our airmen to kind of wait and do what they're told. So we're having to go back and think about that in a world with peer adversaries. As things change around the world, how do we go back and re-embolden and re-empower our junior leaders down to the squadron level to take initiative, to control risk, and to make decisions on their own?

Then finally, to bring the future faster, to accept risk in our acquisition processes, to accept risk in experimentation and be able to field weapons systems much faster than we have in the past. As we've learned, we no longer have the luxury of doing 30 year weapons programs that we could draw a line out as far in the future as we wanted to, and take as long as we wanted to get to it, because we now face adversaries that are doing things quickly and we're going to have to react quickly to keep up with them. So let's talk about that security environment.

Washington, D.C. is well aware that on the Fourth of July North Korea launched an ICBM. We live in a world where it looks like the leader of North Korea is determined to get a nuclear weapon and is willing to go to war to do it. And we know that our nation is determined that they don't and appears to be willing to go to war to stop it.

So as a command, as a combat Air Force, our job is to be ready for that. As General Goldfein says, what would we do different if we knew we had three months or six months and we knew when the next war would start? What would we do different? We're trying to do those different things at ACC.

To further complicate that environment, I talked about the Levant, more strained than ever. We have a ceasefire temporarily there in Syria. I hope it holds.

But when a Navy F-18 shot down a Su-22 near Raqqa, the Russian response said, we're going to treat everything west of the coordination line as a target, and was chilling for our forces there. As we've been able to work through it, we haven't seen the consequences of that. But as I've talked about, every day we're a second or two away from a miscalculation between airmen flying on top of each other with advanced weapons that could lead to an escalation in that conflict.

Along with that, Russian aggression continues in the Ukraine. They're gaining

parity with us in equipment. They won't be able to build the numbers, I don't think, that China does, but our qualitative military edge is fading against peer adversaries.

China is making rapid advancements at an alarming pace technologically. They are building and fielding systems that our experts 10 years ago said would take them 20 years to field, and they're coming out into the field now. They're practicing unconventional means and going after expanding their influence with islands and trying to extent their influence in the Pacific.

Iran continues its support to international terrorist organizations and a fight for regional power. So our adversaries are closing the power gap and I think that means we need to think about how the battle space has changed.

As a young airman in the 71<sup>st</sup> with General Wald, General Creech and General Storey at TRADOC, we were working through the same kind of idea. The battle space had changed in Europe. What had changed and what needed to change in the way the services approached it?

What came out of that was Airland Battle, a cooperation between the Army and the Air Force. If you look at our new battle space, there's a lot of things to talk about. The Army and the Marine Corps are working on multi-domain battle. The Air Force is working on multi-domain command and control. The Navy has a similar program.

But what has really changed? What I propose to you as changed is that the new battle space construct needs to recognize that war now is multi-regional. It's going to be really hard to constrain it in one region. For a global power like the United States, it's probably not in our interest to constrain it to one region. We will probably want to fight where other people are weaker, and not face them where they're stronger.

It's multi-nation. We always, I hope, will fight as part of a coalition of like-minded people, because that's where our strength is in the West. And, it's multi-domain, it won't be restricted to just a ground fight or just a naval fight. It will bring in space assets, increasingly, and cyber assets.

When you layer on top of that the ubiquitous information that everybody has access to, whether that's national technical means for a peer adversary like China or Russia that can go out and do the same kind of intelligence gathering that we can, or whether it's the treasure trove of publicly available information that's now available to anybody and will grow and grow and grow as people field commercial space constellations that includes imagery, that includes synthetic aperture radar, that includes SIGINT. It's not going to be, how do you find out what your enemy is doing? It's going to be, how do you fight in an environment where everybody knows what everybody is doing because of that information?

So what that means to our battle space construct is that there are no boundaries. There's no place you can draw a line and say the conflict will be restricted inside that line

and we'll be safe outside of it. Like I said, it will be multi-regional, multi-national and multi-domain.

There are no hiding places. You can't be secure in your homeland. You can't think that you can do things without people seeing it. And there are no sanctuaries because along with that information come ubiquitous long-range fires, whether that's long-range air fires or long-range ballistic or cruise missile fires. It means people, for the first time, nations other than the United States and the West, have the ability to both find things with precision and to strike them with precision with long-range fires.

So how will we fight in that environment? I think the information battle will be critical. We'll know a lot of things. The idea will be, how do we create doubt in the enemy's mind about what they know or what they think they know, and how can we have confidence in what we know or think we know? It will be kind of unleashing the tempo and the ability of the West to be able to think and operate on their own, and be able to operate quicker than an enemy that's trying to centrally direct things.

So in the multi-domain battle effort we're all pursuing one of the key issues will be, how do we latch together our command and control so that we can operate at the speed of this advanced combat? If we have to wait and work everything out in multiple headquarters, will we be able to operate fast enough? Or, can we decide that we won't re-create everything and every service headquarters, and envision a world where maybe the AOC is the joint fires coordinator and the corps is the joint maneuver coordinator and we're able to bring those together and not duplicate the cyber assets and everything else that it takes to control it? Something to think about is, we'll have to work at least as hard on how we're going to fight in this new environment as we will with what tools we're going to have to go fight with.

I talked about our focus on readiness. We've owned the air for a generation. For 26 years we've been in continuous combat around the world. In Desert Storm the Air Force had 946,000 people in Active, Guard and Reserve.

Since then our end-strength has been reduced by about 30 percent, and I don't think our mission has decreased 30 percent. The Active duty force is down to about 315 (thousand) and looking to build to 321.5 (thousand) in the next budget. But it's not just that we're short people. We're short experienced people.

It takes time to make a tenured pilot or maintainer. How long it takes is 10 years to make an experienced pilot or maintainer. Last year we were short about 1,000 pilots. We project that deficit to grow to about 1,500 pilots by the end of '17, and that's in the total force, the Active, the Guard and the Reserve, to fill all of those squadrons.

The fighter pilot shortage is especially critical. Thirteen hundred of those 1,500 or so pilots that we'll be short will be fighter pilots. There's no quick solution, but again, everything I ever complained about my whole life is now my fault. This is my issue to work.

We're focusing on multiple ways to get at it. Primarily it's making sure that our combat aviators believe that they're a mission-focused organization and that the Air Force is focused on controlling and exploiting the air and is putting our resources against that task, and that they'll be trained and sustained to carry out that mission. But there's a quality of service part, and those are things like acquiring the commander's support staff to take care of some of the things that are administratively done, that we took people to pay bills and now we're trying to add those people back. We're hiring some contractors to do some of the day-to-day paperwork and things that have to get done, our Defense Travel Service bureaucracy and those things that people complain about. Then we'll look at quality of life and compensation.

But the truth is, with the new contracts in the airlines, by the end of your second year you make more money than I do. So I'm not going to be able to compete financially with the airlines. If I'm going to compete as the Air Combat Commander, it's going to be to make a place where you do work that you can't do anywhere else, that's rewarding and fulfilling, and that is a good place to raise your family. That's where we're going to try to get them.

To do that, the squadron is our frontline unit. We have to resource that appropriately and that's a priority in the ACC budget. We have to produce more pilots if we're going to catch back up. We're losing them faster than we can produce them, so we're going to have to produce more.

We'll be standing up two additional F-16 training units, because that's where we have extra airplanes, and that's where the bulk of our force is, but it will take us a while to do it. We'll be adding F-35 units at Hill. The first squadron at Hill took their last airplane, so they're now fully equipped. The next two start to get their airplanes and they'll come online in 2018 and 2019.

We're working with Maryannnn Miller and Scott Rice in the Reserve and the Guard to be able to absorb those extra pilots that we're producing. We typically like to keep a squadron experience ratio somewhere around 50/50 experienced and inexperienced. We range to about 40/60. In a perfect world you'd have about 40 percent inexperienced and about 60 percent experienced.

We're probably going to slide more toward the other way, 40 percent experienced and 60 percent inexperienced. We're still producing more pilots than we can take into the squadrons, so we're working with the Guard and the Reserve. They're going to accept some of our lieutenants straight out of pilot training and take advantage of their high experience rates to experience those young folks.

Then we'll look at the incentive pay. We appreciate Congress' work to give us some more. Our studies, and the RAND study, say it will take more than that for us to compete, and we'll continue to advocate for that.

Okay, personnel. , How about the equipment? I'm flying the T-38 in the 71<sup>st</sup> Fighter Squadron at Langley. That was my first squadron, and it's great to be back wearing that patch and hanging out with the young folks there on Friday nights. What that squadron does is they fly adversary air for the F-22s at Langley. It's not the perfect adversary airplane, but it's an airplane we have that we can put out. And every T-38 sortie I fly is one that an F-22 doesn't have to fly as a training aid, so we'll go and get after it.

Last week I flew a jet that was built in 1963. When I flew it in pilot training it was 18 years old, and look what happened to me.

(Laughter).

So think how that airplane must feel. In '91 the Air Force brought 500 aircraft a year. Now we're buying less than 100. If you look at ACC's portfolio, in '91 we were buying about 200 fighter aircraft a year. Since Desert Storm we've averaged about 20. That has driven the average age of Air Force aircraft to 27 years, and ACC's fleet to 29.

Back then our force structure was more closely aligned with our mission. We had 134 combat coded fighter squadrons. Today we have 55, and that's in the Active, the Guard and Reserve. So 32 Active duty fighter squadrons between the United States and what's overseas, and then another 23 in the Guard and Reserve.

That's not enough to meet the demands the combatant commanders ask for. But the flip side of that is it's too big to sustain and keep ready at our current budget. So I'm not big enough to meet the requirement, but I'm too big for the budget that I have. So how can we address those issues?

Part of the solution to our aging equipment problem is the F-35, and we're purchasing 46 next year. Our goal is to reach 60. That 60 is what we think is financially attainable in the best-case world.

We really should be buying 80 or 100. And if I was going to fix the average life of ACC's aircraft, I'd like to buy about 150 fighters a year and about 20 or 25 RPAs. If I was going to start driving the average service life down, that's what it would take.

But the world I'm in with the budget I have, I'd like to get to 60. I can't understate how essential that weapons system will be to the Air Force. It's a weapons system, not an aircraft.

Many of you probably saw the video from Paris. It will be a good maneuver airplane, and as Steve Mueller reminded me, that's about 80 percent of the envelope you saw at Paris. We're still going to open up a couple more Gs and some other part of the regime, and it will be a good maneuvering airplane. But it's not just about flying faster, farther and higher. It's what that airplane can do in bringing information in, pulling it together, and presenting it to pilots where they can be effective in that airspace.

I had dinner with Amir Eshel, the chief of staff of the Israeli air force. In the Israeli air force everybody flies every Friday. We should think about that in our Air Force, but even their chief of staff flies every Friday.

General Eshel qualified in the F-35. When I talked to him a couple of months ago, he had flown it about seven times. He said it was game-changing. The first time they took off with that airplane in Israel they saw things they hadn't seen before. In spite of all their reconnaissance efforts, all their intelligence efforts, they brought back data that revealed things that were out there that they did not know about.

So we want to observe faster, decide faster, and act faster. We want to checkmate our enemy while they're still deciding what to do with their pawns. Right now, the most cost-effective option to recap our fighter force is the F-35. That will provide us unparalleled capability in that multi-domain contested battle.

But we're going to continue to fight a generational struggle against violent extremist organizations, which continues to put a burden on the O&S of our airplanes. It continues to wear out their service life. So we're going to look at and test a light attack airplane. The logic behind that is if, as our chief says, we're half-way into a generational struggle, do we want to continue to fly six hour sorties at \$20,000 or \$30,000 or \$40,000 per flying hour, wearing off valuable service life from legacy airplanes, or do we want to look at something new?

So at Holloman, starting this month, we'll look at something new. We'll do an experiment to take a look at commercially off-the-shelf light attack airplanes to try to answer a couple of questions. One is, is there something out there that can take on some portion of the mission we're doing every day alongside SOCOM and alongside our coalition partners in the Levant? If so, is there one that we can afford and that we can go put out there? So can you do that mission with something less, and is there something available now that with very minimal mods you can go do that mission?

It's an experiment. We've made no decisions on procurement. But it has advantages in absorbing more pilots that I need to absorb. It has advantages in taking over some of the low-end training back in the United States that I do beyond the requirements of my legacy forces. So we'll take a look at it.

The next thing is weapons procurement. Coalition air forces have used over 80,000 weapons against enemy targets since the campaign against ISIS began. About 70 percent of those were dropped through the Air Force, about 56,000 munitions. Whenever you read about one of our coalition partners fighting alongside of us, mostly they're dropping munitions that are provided by the Air Force to go do it.

Our current acquisition processes have struggled to keep up with that rate, because they were built on kind of a Cold War model where you forecast your requirement, you take multi-years to buy them, and you can do a multi-year buy to get

after it. When you're replacing weapons in OCO, if you drop a weapon this year and you fund it in next year's OCO, and then you spend that money in the year after that, and then the manufacturer delivers it the year after that, you can see how we got behind in our weapons stocks. So we're working with industry and the '18 president's budget requested additional money so we can maximize factory production of the most critical munitions, particularly the Joint Direct Attack Munition, the Hellfire and the Small Diameter Bomb.

If you drive around ACC bases you'll also see the impact of the budget on our infrastructure: where we live, where we work and where we train. We've been in a world since the Budget Control Act where the only thing we've been doing on our installations is emergency work orders. So if the water heater breaks in a building we come in and fix it, but we don't come replace it on an interval so that you don't have to worry about water flooding the building at some point when it breaks.

We have those things to get after and our request includes about \$2 billion for military construction. Some of the most significant upgrades we need are in our test and training range structure. So we've been moving money gradually there. Two of the highest needs are at the Utah Test and Training Range and the National Test and Training Range that supports Red Flag and tests in Nevada.

Our newer systems, the F-22 and the F-35 have to be challenged in training in order to be ready for a high-end fight. They have to be challenged in testing to make sure that they're ready. So we have an operational training infrastructure project that we're going down to try to modernize those, to modernize the emitters that are there, and to buy some contract adversary air to replace some of those T-38 sorties I'm flying with a more capable adversary.

We'd love for our pilots to fly against actual Russian and Chinese built systems. It's not always practical in training. The best thing I can do is simulate those threats, and then I need to simulate in the integrated air and missile defense system that they operate in, and not just a part of it, so that we can get one step closer to training the way we fight.

So this is a great job, as I said, everything is fascinating. There's a lot to be done. We'll use the resources provided to us in the best way we can to make our squadrons ready, to build leaders, and to bring the future faster.

But when I talk to our civic leaders, when I talk to the folks that I deal with and interact with our leaders on the Hill, my two primary asks are one, I need a predictable budget. I would like to have more, but the first step is I need to know how much money the Air Force is going to have year to year to year to be able to invest in the future. And then whatever that amount is, I need the flexibility to be able to right size the Air Force to fit it.

Right now we're too big for the budget that we have. The consequences are I have squadrons that are not ready and I have acquisition programs instead of being

executed in two or three years, are spread out over 10 years, which drives up the cost, which means they arrive late. It's not the optimum way to approach it.

That's my ask. I appreciate the staffers that are here with us. I appreciate the industry folks that try to make that happen. I need a predictable budget and I need the flexibility to be able to size an Air Force to meet it.

A couple of other things I'll talk about that have come up recently, the first one is I need help advocating for reducing the clearance backlog. For my industry partners out here, you'll probably nod your head along with me. I have 500 airmen at Fort Meade that can't go to work. They've been through one of the world's best cyber training courses. They're ready to go to work, and they're waiting on clearances, so they're handing out towels and basketballs at the gym and they're doing other casual duty.

That's a drain on what we do, but more than that I will not be able to keep them in the Air Force. They will go somewhere else at the first opportunity. They'll use that training out in industry or somewhere else. So we've got to figure out a way to reduce the clearance backlog and get our folks to work.

I also need help with authorities for countering small unmanned aircraft systems. One day last week at ACC I had two OPREPs. During the course of a day there are events that trigger a report up through the Air Force. We call them operational reports.

One day last week I had two about small UASs that were interfering with operations. At one base the gate guard watched one fly over the top of the gate shack, tracked it while it flew over the flight-line for a little while, and then flew back out and left. I have no authority given to me by the government to deal with that. We're working to get authorities for the nuclear sites first, but I need the ability.

Imagine a world where somebody flies a couple hundred of those and flies one down the intake of all my F-22s with just a small weapon on it. I need the authorities to deal with that.

The other incident was an F-22 on its way on final had a near collision with a small UAS. I don't have anything that I can do about it. The rules basically are the same as if it was a civil aircraft. If it was a civil aircraft I could track it back to where it started from and I could go find that pilot and admonish him or take their license. For the small UAS it's really hard to get after.

So thanks for letting me add on a couple more issues. It's my pleasure to be with you this morning. I think we have a few minutes to take some questions.

(Applause).

GEN. SPENCER: Thank you, General Holmes. By the way, I noticed you said that we took the squadron positions to pay bills. I think as the A8 that was you, not we.

(Laughter).

GEN. HOLMES: I think it was the previous comptroller.

(Laughter).

GEN. SPENCER: A great presentation by General Holmes. We're going to open it up for some questions. I would just ask that you state your name and where you're from, take one question at a time, and please wait on the mics so everybody can hear the question.

MR. JON HARPER (ph): I'm Jon Harper with National Defense Magazine. Looking out to the medium- to long-term, what role do you see for directed energy weapons in air combat? What are some of the issues that need to be worked from either a conops perspective or a technology perspective to make that a reality?

GEN. HOLMES: I went out and attended -- we called it a Directed Energy Summit out at Kirtland this summer with the vice chief and with Air Force Materiel Command and some of our folks. We are going to go down that road. I desperately need help protecting my airfields. When I talked about that new battle space construct where there's no hiding places and no sanctuaries, the problem for all the services will be not so much fighting underneath the envelope of advanced threats, it will be how do we deploy forward against it and how do we support the bases required to sustain it?

So for me, my first priority with directed energy would be, what can I do to defend my bases at a much lower cost per shot? I looked this up when I was an A5A. I wanted to go back to the agreements between the Army and the Air Force at Key West. What I found was, the way it's written is, the Army will help defend Air Force bases within the constraints of their budget, and the Air Force will advocate for additional resources on behalf of the Army in order to help defend air bases.

So I'm fulfilling my obligation under the Key West Treaty by arguing in front of you all for additional resources on behalf of the Army to help control our bases. But it's a problem for all of us in the joint world. I'm being funny, but we're going to have to decide how we're going to protect our bases and we need to do it at a lower cost per shot. Directed energy is a great way to do that.

When you look at airborne uses you have to figure out several problems. One is just getting the size, weight and the cooling air and the power on an airborne platform. We're making progress in reducing weapons down to where we can do that on an airborne platform.

Then you've got to figure out how to point it through the atmosphere from one moving target to another. We think we know how to do that. We're doing some test work to get after it.

Then the question will be, do you go with bigger airplanes first where you have more size, weight, power and cooling air and try to work out the problems there? Eventually it will make its way down to our airplanes.

MR. : There's conflicting messages about the A-10. I realize you've got budget constraints and lots of priorities. For the A-10 there's testimony saying you need to retire these aircraft so you can start a transition in five years. But at the same time, they're putting the center wing sections on the unfunded priorities list. Where are we on the need to retire the A-10?

GEN. HOLMES: As many of you remember, several years ago we brought forth a proposal that said to make our budget balance -- and if you looked at all the capabilities we brought across the board -- that that was the least bad place to go. The program that we brought forward now says that we will keep about 173 A-10s, and that matches the number that we had already brought new wings for. So 173 kits had already been funded, so that would take us down to about seven operational squadrons, something like that, and would continue to provide what we've done in the past in the Air Force where we've had kind of an exquisite fleet that focused on one thing in small numbers in that permissive environment ground fight. Then we'd have a small number of F-22s on the other end, and then work in the middle with the multi-role aircraft.

That was our logic. If you do that math and you look at the guidance we were given by Congress that says you cannot retire any A-10s until you've done comparison testing against the F-35, the earliest date you could do that was '19. If you want to make sure that you keep all those squadrons flyable through '19, then it makes sense to purchase a handful of wings to make sure you can get through that period if Congress decides that we're going to keep the airplanes.

As we look at what we're going to do as the F-35 comes onboard, we're working together with the HAF to try to come up with a long-range plan on what our bed-down plan will be and not a year-by-year approach to it. That does a couple of things for me. I want to be able to tell the communities and members of Congress that if we have 55 fighter squadrons and if you have a fighter squadron now you're going to have one when this is over. Just work with me on when you're going to get it. So we're working through the option of what comes next. We have the next couple of basing choices to be made. The next two Air National Guard options, I think they're ops five and six. So the choice is, do you retire A-10s, do you retire block 30 F-16s, or do you retire F-15Cs? All of those airplanes are getting old. All of them will have to retire at some point. The question is when and in what order? Working through that with HAF A5/8, I don't know what the answer will be. I have my view and we'll see how it comes out.

MR. PATRICK TUCKER: Thanks, Patrick Tucker with Defense One. The Russian military has moved some of their most sophisticated anti-aircraft material into Syria, and I wonder if you can tell us how that's changing your view of operations there? For instance, does it accelerate your timeline for moving more 5<sup>th</sup>-Gen aircraft into that

area? Relatedly, what's the current state, if you can say, of the deconfliction line with the Russian military?

GEN. HOLMES: I think that's mostly a political question. I'll try to stay on my end of it without going past it. When I talk to Jeff Harrigian, the coordination between the U.S. Air Force and the Russian air force in general holds, and the de-confliction process in general holds.

But we've put our airmen in a condition kind of like the old story about boiling a frog in a pot of water. We started off with airplanes that were flying without worrying about any enemy threat. We knew about the Syrian threat, but we believed we could deter them from using it.

When the Russians brought in more and more sophisticated systems, we've moved now to where we're routinely flying within the range of those systems. So now, again, if you're flying along that de-confliction line and you're watching Iranian forces try to come down and threaten the coalition forces you're supporting from Syria, you're illuminated by Russian and Syrian air defense systems and it's hard to tell which is which. And you're illuminated by Russian and Syrian air-to-air radars and it's hard to tell which is which.

So we're putting our airmen in a really tough position, which is rife with the opportunity for confusion or a mistake. Right now, the two professional air forces are working hard to de-conflict it, but it's a very challenging environment for people to operate in and be able to make the right decision.

If there's an airplane coming at my coalition forces. It's an aircraft airframe that's flown by both the Russians and the Syrians. If it's a Russian airplane he's probably just here to look at me and see what I'm doing. If it's a Syrian airplane he might be trying to attack those forces I'm defending. So it leads to split second decisions at the point of attack by young airmen; and they're doing great.

MS. : (Off mic).

GEN. HOLMES: I can hear you.

MS. LEIGH GIANGRECO : (Off mic) -- Thanks General Holmes, Leigh Giangreco with Flightglobal. I wanted to follow up on that F-22 little run-in with the UAS. Can you just characterize how big of an issue this is for ACC, and just sort-of give us an update on where the nuclear bases are at. I know last year the HASC was talking about authorities they wanted to give the Department of Energy to defend some of their bases, not really sure where that went with that, so when can we expect like an RFI or something for the ACC bases? (off mic)?

GEN. HOLMES: I'll refer to exactly where the time into that is over to the HAF, to General Nowland at A3, that's working those issues. What I understand is that we will

likely receive authorities to defend the nuclear installations first, and then we'll try to work the other ones. For Air Combat Command, I'm making that request through the Headquarters Air Force, that we need to extend those authorities beyond the nuclear site to protect our assets, to protect the sophisticated assets that we'll rely on in war and to take the pressure off our young security forces airmen that are charged with defending these resources. We're acquiring some tools to be able to do that, and when we get those tools we need to get the authorities that come with them so that we can use them.

MS. LEIGH GIANGRECO : So does that take FAA Authority? It seems like authority to do this at nuclear bases is gummed up somewhere. (Off mic).

GEN. HOLMES: It's not a military authority, it's a homeland authority. So it's a civil authority that could then be executed by military forces.

MR. STEVE TRAVER : I'm Steve Traver from the New Mexico congressional delegation. I'm curious about the OA-X execution. If you decide to go ahead and buy a unit of those airplanes, what kind of squadrons will they be? Will you create a new type of squadron or will you transition them into existing squadrons? Also, will you try to sneak down to Holloman to get a few sorties in for yourself -- (off mic)?

GEN. HOLMES: Well, I will be coming out to Holloman on the DV day, for a lot of reasons. One, my son, the Guard fighter-pilot-to-be was born there in Alamogordo, and my daughter, the physicist, is working at Los Alamos. So I'm always happy to have the chance to get back to New Mexico.

But when we bring those airplanes, again that would be pre-decisional, but I would expect that we'll organize them like a fighter squadron. We might call them an attack squadron, as opposed to a fighter squadron. But I'd guess we'd want to organize them the way God intended in 24 PAA squadrons so that you could train -- have enough front lines every day to be able to train to a high readiness level and still send some downrange.

The guys downrange would be engaged both alongside coalition forces working with our partners, and probably some aligned along with our special operations forces. And then back home, I can keep them busy doing tactical air control party training, and doing training with maneuver units beyond what's required to keep a legacy fighter pilot current. So I think we can find plenty of use for them in both places, like most of the things I'm looking at in an Air Force that's already bigger than I can afford, if I have the money to do it.

I can say money to do it because one of the things a guy named Larry Spencer taught me is that the hardest thing to do in the Air Force is to spend a dollar this year to save two or five next year. It's just really hard to come up with the money in this year's budget to be able to fund ahead things that will save you money in the long run, because we don't know how much money we're going to have.

MS. RACHEL KARAS : Good Morning, Sir, Rachel Karas with Inside the Air Force. Could you talk about the progress that ACC is making in the MQ-9 service life study, and how your work on that is informing whether or not you might go for the MQ-9B consider retrofitting Block 1's to Block 5? (Off mic).

GEN. HOLMES: Right now we're procuring the versions of the MQ-9 that we're flying, and they continue to come up with upgrades. I think we're up to Block 5 airplanes starting to be fielded. We're pursuing cockpit options for that airplane. Two years ago our answer was that we have enough and we don't need to buy any more. As we looked at it with the use rates and with the service life, I think a prudent ACC commander would want to buy about 20 or 25 a year to keep that fleet at the right size. Then at some point we'll have to decide, do we keep buying MQ-9s forever or do we go to something else to start replacing that fleet? We're in the process of working through that. We've done these enterprise capability collaboration team projects. The first one we did was Air Superiority 2030 and we looked at our air superiority needs in the future and came up with a roadmap. The one we're doing now is multi-domain command and control. We'll pick another one after that. I advocate for global integrated ISR so that we can kind of get to the bottom of where we're going to go with some of those things in the future.

MS. HELAINE COOPER (ph): Hi, general, sir, Helaine Cooper Tellabs. I'm not airplane focused, but network focused. Prior to Lieutenant General Bender's departure he was engaging with us on cost-savings measures and directing us to work with Air Force Space Command. Immediately upon his departure that was reversed. What I'm wondering is, I understand that ACC is now going to be responsible for networking and taking over the AFSPACEs position. I'm wondering if you can address how we would proceed forward in engaging?

GEN. HOLMES: There is some talk about that, but again I'd say it's pre-decisional. There's some talk about moving 24<sup>th</sup> Air Force into ACC and aligning it there. But in the meantime, ACC is pursuing mission defense cyber teams in our wings. So we're trying to move beyond just protecting our networks to protecting our weapons systems. We have, I think, 15 Pathfinders. The squadron at Tyndall was the first one to stand up. They're looking at the threads of all the ways to get after an F-22 and all the things that need to be done to protect it from cyber threats. If we're going to pay for those things in the future, we're going to have to get efficiencies in our enterprise network services. So yes, we're very interested in that. As we take a look at where the cyber mission will end up in the Air Force, whether it stays in Space Command or whether it moves to Air Combat Command, one of the things we're coming to grips with is, what does that mean for that enterprise IT structure? Should we pull that out? Should we put that under our CIO? Should we still keep it under that numbered Air Force? And again, I think we're working through all that. I don't know what the answer will be yet.

GEN. SPENCER: I think we have time for one more.

MS. COURTNEY ALBON: Courtney Albion, Inside the Air Force. I just

wondered, you were talking a little bit about operational training. I wondered if included in that is looking at better LVC technology --

GEN. HOLMES: Absolutely, yes. Thank you.

MS. ALBON: Can you give more detail on that?

GEN. HOLMES: Thank you. In a short talk it's hard to fit everything in, but absolutely. If you're going to buy fifth-gen airplanes, you have a couple of training constraints.

One is, because of the expense, you're never going to be able to afford a backyard training range for each one of those units that has all the threats and density that you need to be able to train against them. You just can't afford it. So we're going to build a couple of those so that we can train hard and we can pull all those together and we can have a live test environment to make sure that things work.

But the bulk of our local training against the highest end threats will be done in a synthetic environment; live virtual constructed, a combination of actual people flying, of computers doing it and people in the loop doing simulations. We're moving ahead with the virtual center at Nellis to be able to have a center there with all the cockpits and sync that to the ACC world, which is kind of the center of the universe anyway. We'll make it the center of our LVC universe as well.

And then we're working through, how do you make sure that all the simulators match the configuration of the airplane? How do you work through the cyber vulnerabilities of those legacy systems to make it safe to connect them to each other and to be able to build an integrated network that lets our airmen all around the world come together in a virtual environment to train together, knowing that that extends beyond the United States Air Force and to the fifth-gen assets in the Navy and the Marine Corps, and then also to all the partners that are buying into the F-35? How do we make that work so that we can train together and take advantage of it together while still maintaining our national security and clearance processes?

So the first stage is, get one that works within the Air Force where we can pull those things together. Right now, the biggest problem is probably bringing the legacy systems together. They were all built separately under a separate contract, from different ones of you guys, to different specs. How do we get to a common operating system where every simulator can plug into that and do it in a secure cyber safe way? But yeah, we're after it. We know we have to do that if we're going to train.

So thanks again, everybody. Air Combat Command will get after your tasks, and it's a pleasure to talk to you this morning.

GEN. SPENCER: Thank you so much.

(Applause).

It won't surprise anyone here of the great job you did. We really appreciate your being here. We know you're a busy man.

We're going to offer you the coveted AFA coin. This is probably the biggest coin you've ever seen. It's not a plate, it's actually a coin. It's so big we have to have a holder for it.

But thank you so much for what you're doing and thank you for being here. We really appreciate it. Thank you.

(Applause).

Thank you all for being here. A couple of quick notes before we break up. First of all, I want to thank our sponsors for this great event. If it wasn't for you we would not be able to do this. Thank you all so much.

We also want to call your attention to our breakfast on the 26<sup>th</sup> of this month. We will have the Chief of Staff General Dave Goldfein as our speaker. I'm told that event is sold out, but if you really want to go, see this young man here, Chet Curtis. I'm not sure what he's going to do about it, but you can see him anyway.

I also want to continually remind you of our Air, Space and Cyber Technology Symposium in September. It is going to be the biggest, most well attended that you've seen, so I would encourage you all to come. Sign up early, register early, because it's going to be a big one. It's going to be a special one celebrating the Air Force's 70<sup>th</sup> anniversary, and also celebrating the 50<sup>th</sup> year of the establishment of the chief master sergeant of the Air Force position. So be there or be square.

Thank you all again for being here. Have a great Air Force day. Thank you.

(Applause).