

## "Nuclear Enterprise"

Maj. Gen. C. Donald Alston  
Maj. Gen. Floyd Carpenter  
Maj. Gen. Roger Burg  
Brig. Gen. Everett Thomas

15 September 2009

**Moderator:** I'm sure you agree that we have exactly the right personnel on this panel to discuss this very important topic. Let me introduce them to you now.

Major General C. Donald Alston is the Assistant Chief of Staff, Strategic Deterrence and Nuclear Integration. He's responsible for increasing the nuclear focus by ensuring corporate advocacy and cradle to grave stewardship.

Major General Roger Burg is Commander of 20<sup>th</sup> Air Force, Air Force Space Command, and Commander, Task Force 214, U.S. Strategic Command. All U.S. ICBMs are assigned to 20<sup>th</sup> Air Force.

Major General Floyd Carpenter is Commander, 8<sup>th</sup> Air Force and Joint Functional Component Commander for Global Strike, U.S. Strategic Command. The mighty 8<sup>th</sup> operates our bomber forces and serves as the air component headquarters to USSTRATCOM for strategic deterrence and global strike.

Brigadier General Everett Thomas is the Commander, Air Force Nuclear Weapons Center, and is responsible for the entire scope of the nuclear weapon support functions across the Air Force.

I will ask General Burg to begin, then General Carpenter, General Thomas, then General Alston. Gentlemen?

**General Burg:** Thanks very much, Joe. We had a late change of the batting order because we all know Don Alston is a cleanup hitter. Depending on how many singles or strikeouts we have, he'll certainly be able to put somebody around on home plate.

Joe, thanks for the introduction. I can't tell you how excited I am to be here as part of an AFA symposium discussing the nuclear deterrent. I've been in this job for a little over two years, had a job on the Air Staff for three years prior to that. I don't remember AFA having an interest in this aspect of our Air Force for some time and we are very appreciative of all of you and of AFA in wanting us to present to the symposium today.

Very quickly, 20<sup>th</sup> Air Force. Three combat wings, just under 10,000 people, 450 Minuteman III ICBMs on alert. When I checked this morning the alert rate was just a little over 99 percent. That's a standard for the ICBM force. It's the way it was designed. It's not incredibly difficult to do because of the great work that the acquisition and sustainment community does to support us. It's just a fact.

Spread across five states in the northern plains. Just under 35,000 square miles of deployment area. For those of you who like maps, that's the equivalent of about half of the state of Pennsylvania. In that deployment area you have Airmen operating in small teams, generally with a junior NCO as the team chief on the operations side with a lieutenant running the show. So our business depends on first term Airmen, first assignment officers, to perform at the highest levels of nuclear assuredness, to the highest levels of the personnel reliability program, without significant direct oversight by senior NCOs or senior officers. I can tell you that by and large that young, well trained force does a magnificent job.

So from a security forces member standing guard at a weapons storage area or a launch facility to a logistics expert navigating a large payload transporter over narrow graveled roads, to a lieutenant crew commander sitting alert in a launch control center 75 feet under the prairie, every one of our critical parts of our mission is performed by a junior team led by a junior officer or a junior non-commissioned officer.

Very topical this time of year, this time of an administration I get the question, well why ICBMs? Why do we still do this? In fact sometimes on an airplane you tell somebody what you do and they say, "We still do that?" Yes, we do.

Why? The ICBM was designed to be the most responsive element of our nuclear deterrent. It still is. It is constantly available to the warfighter and to the President. The highest alert rate of any of our weapon systems. I wish we could get 99 percent alert out of the bomber force, but it wasn't designed to be that way. So don't pick on Floyd, he didn't do it. [Laughter]. But that's the way our ICBMs work.

The tightest command and control with the President of the United States of any of our nuclear deterrent forces.

The ICBM provides an immediate and visible deterrent threat to any potential adversary, one that could be leveraged on a moment's notice, all while maintaining

positive control with the President responsible for any final decisions.

Minuteman III is primarily a single reentry vehicle system. It provides great flexibility to the planners at Strategic Command. It's deployed over that large area which makes it a very difficult target to strike. It requires a massive attack in order for an opponent to take that capability away from us. Which means that then the ICBM force as it's currently deployed, with lower numbers of reentry vehicles disbursed over a large deployment area, is inherently stable in peace time and in crisis -- an element which many of our arms controllers need to remember.

Rather than a single point target with a relatively high payoff, the ICBM is the toughest of all nuts to crack and requires a tremendous effort on the part of an adversary.

The bottom line, why ICBMs? As currently deployed, the best leverage you have for maintaining a stable geopolitical environment in peace time or crisis.

As I said, I've been the Commander of 20<sup>th</sup> Air Force for just a little over two years, and I know you are fully aware of the adversity that the Air Force has faced in the nuclear enterprise over that time. But I need to tell you that the support and leaders of our Secretary and our Chief of Staff has been nothing short of astounding and critical to the effectiveness of our force. They've been marvelous.

Rebuilding the Air Force nuclear enterprise is the Chief and Secretary's number one priority and we see that fact every day. Don probably sees it far more often than I do, and I appreciate that, Don. But the Chief and Secretary have been out to the alert force. In fact the Secretary of Defense has visited the alert force up at Minot. They get it. They mean it. It's not just a collection of words to them. And they've been very consistent in their support.

In October, a little bit of advertisement. In October we will celebrate 50 years of the Air Force ICBM mission. We'll celebrate at F.E. Warren Air Force Base which was our first ICBM base in 1959.

Secretary Donley will be there to celebrate with us along with General Kehler and General Chilton. Secretary Donley has made sure that a young former ICBM intelligence officer from the 351<sup>st</sup> Strategic Missile Wing, Joe Sutter, is not bowing forward, the former commander of the 351<sup>st</sup>. A young lieutenant named Gates will be the keynote speaker at that ICBM celebration in October. We appreciate that kind of support.

Very briefly, where are we in the enterprise? We're just about complete with a \$6.2 billion life extension and sustainment activity which Ev Thomas will probably tell you much more about. A \$1.4 billion security modernization activity to increase the security of our ICBM system. We're well on the way to a force that should be fully capable through the year 2020 and on. Congress has asked us to make sure we can continue that force through 2030, and we're working very hard on how we accomplish that.

Two specific aspects about people, and then I'll turn the mike over to Floyd.

A lot of emphasis on inspections and nuclear assuery over the last couple of years. I want to tell you that I do not believe and never have believed that you can inspect to excellence. You have to build excellence, and then you inspect to validate that you built the right things. I can tell you that the results over the last several months have validated that we are rebuilding the right kinds of things in our ICBM force. Rebuilding the expertise that had atrophied in some areas. Rebuilding the absolute perfection in day-to-day operations that had not been the watchword for several years. And rebuilding the personal expertise of the officers and NCOs who have to manage that aspect of our deterrent force.

For about 15 years we told officers you need to become broader and knowledgeable of space and knowledgeable of nuclear and competent at all. And the reality is, we asked too much. People need to be experts at what they do and that's what we're developing today. Experts at the officer level, experts at the senior NCO level, and experts at that small team leadership level.

We are well on the way to rebuilding what we had once had as the epitome of nuclear deterrent professionalism. I have no qualms about telling you that these are absolutely the best young men and women that we have. Every day we build a little bit more and from time to time we uncover a problem. Now we're dealing with every problem we find in a very professional and resolute way. And I have the greatest confidence in that deterrent force that's out there today.

Lastly, nuclear deterrence is kind of a busy topic this time of year, again in this administration because of the nature of the world we're in. Nuclear Posture Review is underway. Arms control discussions are underway. And I just wanted to throw down my two cents. I'll go over to the White House this afternoon and try to talk to some of the staffers on where we are in the negotiations.

Just the same as you would do with any strategic capability, get your strategy right and then figure out what

time and cost is required to support it. Don't make cost the independent variable and let that be what drives you into a strategy.

I think we can all understand the urgency of arms control agreements that are about to expire, and new relationships that need to be built, but we've got to get the strategy right and then determine how we build arms control structures that support the strategy, and force structure deployments that support that strategy. That's the message I'll try to make sure I'm giving as an operational commander to those who are responsible for that policy decision to be made later this year.

With that, thank you very much. I look forward to your questions, and I'll turn this over to Floyd.

**General Carpenter:** Thanks Roger. Also thank you very much to the Air Force Association for inviting us here today. It's certainly a pleasure for all of us to be here. Each of us, as you can tell, has a great role in this endeavor of nuclear enterprise, although I will tell you the bombers are the most important. Don't forget, bombers first. [Laughter]. When you're resourcing us, bombers first. We need your help the most.

It's great to see a lot of you senior leaders here in the audience, and certainly former leaders who I have worked for in the past.

I'm Floyd Carpenter, the 8<sup>th</sup> Air Force Commander, been there about four months as the commander. I was there as the Vice Commander for about 17 months prior to that, so almost two years now in the job, at least at Barksdale Air Force Base. So I've seen a lot of change in that time, a lot of change coming.

What's going to happen here October 1<sup>st</sup>? Ev Thomas will tell you a little bit. We're going to change our weapons storage areas all over to the new Weapons Center under AFMC. And more importantly, at least for me, is I also change from a nine wing 8<sup>th</sup> Air Force to three. So we're going to focus very much on this nuclear mission. Actually a dual-role mission. Don't forget that part. Bombers are dual-role, dual-capable aircraft like the fighters in Europe. But we're going to go from the 9.5 currently October 1<sup>st</sup>, a lot of those reconnaissance type units move over to 12<sup>th</sup> Air Force, a couple of the others move to 9<sup>th</sup> Air Force. So I'm going to be left with Whiteman, Minot, Barksdale, and some Guard associated units specifically in the nuclear arena. So nuclear bombers is going to be our mission and our focus as it has been now for the last two years.

Same thing, why bombers? I think it's pretty obvious. We are the most visible force when you talk about deterrent value. We can posture bombers, we can make them seen, we can move them around the world, we can do real world exercises with them as we do today all over the world.

We're flexible, obviously. We have a very flexible role. Not just being a manned unit but also because of the types of weapons we carry, whether it's standoff, the types of yields we carry, penetrating weapons. We obviously offer a flexible resource.

And we're survivable. We can disperse, we can go different places. We can put, of course, our airplanes in the air so they are survivable.

And as I already mentioned, we're multi-role. The bombers have a dual role, so today we are in Guam, we're all over the world showing our ability to drop weapons and support the current fight as well as providing a deterrent.

On the deterrent side I would not just talk about a nuclear deterrent, but we talk about strategic deterrence. Because I think the bombers do provide a strategic deterrence in that dual role capability.

Obviously we have our challenges. We have aging weapon systems. We have aging weapons. And we have shortages in personnel in various areas, key places on the flight line and in security forces. But that's not really anything new. We've been operating that way for a long time, so we do our best at it. I think we do an incredibly good job. In fact I would tell you we do it very well as the 2<sup>nd</sup> Bomb Wing just proved in their limited, no-notice inspection, NSI, this past week. The 509<sup>th</sup> also will have their nuclear ORI coming up in about a month. We continue to perform very well.

So it's really on the backs of our people that we do this mission. We continue to provide expertise in many areas, and as little experience as we have in this area we are continuing to focus and we have continued to get better and better at it. I would say we are as good as we have been since we came off alert in the early '90s. So it is the people that make this mission go. Like it always has been, always will be, we count on our folks and they never, never let us down.

So you can count on 8<sup>th</sup> Air Force to be out there providing a deterrent and providing great capability for our Air Force in the nuclear world and in the conventional world.

I'm going to go ahead and pass it over to Ev Thomas. Thank you.

**General Thomas:** Thank you, sir. Like the two of you, my thanks to AFA for the Air and Space Conference, for inviting me. But as I listened to General Burg and General Carpenter, which delivery system is the most important I am reminded of the old saying between a rock and a hard place. [Laughter].

It's funny how it comes back to repeat itself. On the one hand I've got two major customers and on the other I've got my policymaker right here in General Alston.

You know the origin of that phrase, between a rock and a hard place? Well, it came out of disputes in 1917 between copper miners and management. The miners wanted better conditions and pay. Managers did not and did not want to pay them better and improve conditions and they'd deport them if they were overly demanding. Deportation meant unemployment and poverty. The rock was the copper mines in Arizona. The hard place was deportation to New Mexico.

So General Alston and the conditions, he sets the conditions. General Burg and General Carpenter make the demands. I'm trying to make everything work from New Mexico. [Laughter].

The Air Force Nuclear Weapons Center stood up officially in March of 2006 and the idea there as we've articulated it was actually streamline sustainment and to exercise positive controls. That's not new, even though we stood up in March of 2006. The concept of an Air Force Nuclear Weapon Center to do the two things I just talked to you about actually started in the Air Force in 1949. Our leaders at the time decided they would stand up an agency in Albuquerque, New Mexico, before it became an Air Force base, to do just what we're doing today. Over time it migrated down to San Antonio, the Air Logistics Center -- always under the purview of Air Force Materiel Command and Air Force Logistics Command today. And it stayed that way until about the mid 1990s when we did the BRAC thing.

We broke up everything the San Antonio Air Logistics Center was doing; we matrixed it out to everyone as far as distribution, who was responsible for sustainment, and we did the same thing with policy. We broke that out and we put it into many parts of the Air Force.

We decided to bring that back, but it's taken on a vengeance of bringing it back since about April of 2008. I don't need to rehash the things that are there.

But actually, I believe the defining theme of what we're doing is really going back to what's stated in Air

Force Policy Directive 91-1. It basically states "Nuclear weapons receive special attention and consideration."

Nuclear weapons and weapon systems receive special attention and consideration because of their political and military importance and their destructive power in the potential consequence of an accident or an unauthorized act. Let me repeat that. Nuclear systems receive special attention and consideration. So the mantra of being different, special, is how all of us grew up professionally. It's what we believed. And for the better part of five decades since the first nuclear weapon, it's how we were organized.

For Ops in the old days, SAC embodied nuclear uniqueness. For sustainment, as I said, it was San Antonio.

Then in the '90s we broke it up. We were displaced by a different philosophy. That was nuclear is not unique. It should be treated just like any other weapon system, which means we should pay attention to it, we should nurture it, we should explain it. No special attention or consideration.

Now it took only a decade before the loss of special attention and consideration began to manifest itself up in a chain of high level reports and highly publicized public incidents. Before we saw there were no economy of scale, that there was only one true core competency -- nuclear excellence. And now we're reinvigorating that nuclear enterprise with these three gentlemen here.

For our part, the Air Force Nuclear Weapon Center has made tremendous progress since the last Air and Space Conference. We published our baseline ICBM systems road map. That's the first time that's been published in more than a decade and a half. We'll feed that and we'll make it better once we start doing the master planning efforts.

We stood up the Air Force's first and only Director for Nuclear Assurety to be the one voice of integration, of communication, safety, security, civil engineering, so we can treat the weapon storage area, as General Carpenter mentioned, as a system of systems. In fact we're making great strides in using system of systems engineering processes in everything we do -- in design, manufacturing, risk management, configuration management, project planning, requirements, and more. That's a first since about 1992.

No doubt each of our major customers can tell you stories of great partnerships and communication with the things we're doing today. But in concert with the MAJCOMs and our partners in the Air Force other U.S. centers, the Air Force Global Logistics Support Center which is in Air

Force Materiel Command, we put over 15,000 nuclear weapons related material assets into Air Force control from the Air Force supply. Over 29,000 assets are now being managed in the Air Force Supply and Maintenance System, with 94 percent and growing under serial number control. Positive inventory control like they did in San Antonio. We're standing those facilities up. They'll be at Hill and at Tinker. And we're breaking new ground with the creation of a sustainment center to provide 24x7x365 visibility into all our assets and operation. And of course we're moving as fast as possible in growing the Nuclear Weapons Center staff as directed by the Secretary and the Chief.

Our challenge, like these two, is getting qualified people in our top positions. You can't have nuclear expertise focus and authority, you can't drive rigor, discipline and standards, you can't achieve special attention and consideration without talented people.

With all of that said, I still have a top challenge here, and that challenge is expectation management.

We've been an organization the way we are now since about April of 2008. The Air Force Global Strike Command stood up in August. My greatest challenge now is, now that we have operations and entities and people doing this, that we will walk away from it and say we fixed it. We haven't.

As General Burg said, we're discovering issues now. We're going back and doing this thing called root cause analysis to get to the basis of the issue.

In June of 2008 I led what we call a comprehensive assessment of nuclear sustainment. What we found after reviewing about 2,000 documents was we were fixing issues about every two years. Well, we've implemented, stood up organizations, bringing in the right people to fix those same problems we thought we fixed once and for all.

So for those who say you stood up the Global Strike Command, you stood up the Nuclear Weapons Center, aren't those problems fixed? The answer is not yet. We still need the people, we still need the funding, we still the special attention and consideration.

With that --

**General Alston:** Thanks General Thomas. I appreciate it.

I've chaired a panel, I've had an opportunity to sit by these gentlemen before, and it gives me the chance to sit back and realize that they're field commanders and I'm a

staff puke. That's okay. I'm here to support every one of them.

Our Air Force Nuclear Enterprise has responsibility distributed across major parts of our Air Force. And I'm in a position to be able to support the major command commanders that are responsible for this mission area, and the numbered air force commanders that have the fielded forces that are performing the kind of duties that are providing us credible deterrence every day.

That credible deterrence is what this is all about. The 13 different internal and external reviews that have informed our way ahead have been very helpful, but you can get caught up in this identifying of weakness or opportunity to improve and you can, if you're not cautious, think that's the objective. But the objective, of course, is credible strategic deterrence, and specifically with nuclear weapons.

That deterrence is a function of capable systems and competent people. So the range of activities that the Secretary and the Chief have put in motion are across the nuclear enterprise, looking at every aspect of the enterprise, in order to ensure that we are building processes, organizations, to sustain our Air Force capacity to provide credible deterrence every day.

I'm going to hit some high points and then turn this back over to the Chairman of the Board. Thank you, Mr. Sutter, for your support of our panel and our Air Force and our nuclear enterprise.

Let me hit a few really quick points.

We stood up Air Force Global Strike Command, Lieutenant General Frank Klotz took command of that the 7<sup>th</sup> of August. That decision to stand up that command occurred at Corona on October 3<sup>rd</sup>. Do the math. That was an extraordinary effort and very reflective of the urgency and the priority and the leadership at all levels of the Air Force to move forward to do that as urgently as we did.

General Klotz is preparing to take ICBM forces on the 1<sup>st</sup> of December and bomber forces on the 1<sup>st</sup> of February, and so that's moving along smartly.

This services one of the important recurring themes that was brought to our attention consistently across these internal and external reviews, and that was to put emphasis on cleaning up alignment of authorities in the nuclear enterprise. So the converging of nuclear forces from Air Combat Command and Air Force Space Command into this new major command, Air Force Global Strike Command, is a very

significant manifestation of that, cleaning up some of those alignment issues.

But we also did that on the sustainment side.

General Don Hoffman, the Commander of Air Force Materiel Command, is where we've converged all responsibility for the sustainment of all of our nuclear systems. His principal agent in that effort is Brigadier General Ev Thomas at the Air Force Nuclear Weapons Center. But that is taking in all of the systems that deliver and contribute to our credible deterrence and converging them on a single four star to ensure success.

The third major organizational shift that we made was the Chief and Secretary's decision to stand up and reorganize the Air Staff and put a general officer accountable for strategic deterrence and nuclear integration -- that would be the job title of A10. And this is also helping secure the E-Ring and the focus that's required in order to ensure that the fielded forces have the resources that they need and the advocacy and the resources that they need to do their job.

We've changed the Air Force corporate process. Established a Nuclear Operations Pane to ensure that nuclear competes as effectively as all of the other very demanding missions that our Air Force is held accountable for.

Those are three large muscle movements that we put in motion in order to set the conditions for sustained performance at this level that is so vital to our national security and with the tools of the trade being strategic attack assets that we have. But it doesn't stop there.

We have rebaselined professional military education. I had the chance to speak to the Worldwide Enlisted PME Conference a couple of weeks ago in Atlanta as they are taking on a new curriculum, trying to right-size that for our different ranks and different schools, and to ensure that we are exposing and connecting all Airmen to the responsibility that the Air Force has to secure the strategic commons.

I think that reflection that the Air Force is uniquely equipped and with personnel trained to secure the strategic commons, that the more that we understand just how much we depend on each other and the strengths that all Airmen bring to that very important effort, I think it just improves how effectively we pull in the same direction. The stakes are too high for it to be any other way.

In all of these efforts, it's to have an enduring capacity. We have capability in our systems that General

Thomas talked about, the road map that is evolving to move the Minuteman to 2030, and then ensuring that we expose decision points for how to secure land-based ICBMs into the future.

We have an analysis of alternatives that is focusing on our standoff capabilities. In addition to that our platforms, the B-2 and the B-52 are in good shape, but we have to have good, deliberate plans to continue to ensure that they continue to be cared for and stewarded because those capabilities are so vital to the country. And we also have a great relationship with the Department of Energy because it isn't just their check that gets written when it comes to the nuclear stockpile. The Air Force has specific and expensive equities to ensure that our part of the weapons themselves are sustainable and sustained into the future as well.

So we're pressing the fight on all fronts, and we're pressing the fight on all fronts to ensure that we've got enduring, credible deterrence with capable systems and competent people.

Mr. Sutter, over to you.

**Moderator:** Thank you, Gentlemen.

As you can see, your remarks have generated a significant amount of interest and questions here. Let me begin with one for the staff puke, if I may.

How was your presence and advocacy on nuclear issues being treated at the highest decision-making levels in the Air Force at the Board and Council level, as a new office, the A10.

**General Alston:** Thanks sir, I appreciate the question.

I find myself as I look at the four stars that I am responsible to support, that I need to ensure that I understand what their priorities are. They certainly understand what the Chief and the Secretary's priorities are, but it is important that we all are aligned effectively so that we can be as aggressive as appropriate to ensure that we are telling the story effectively and getting the appropriate support through the Air Force corporate process.

Certainly when the Chief of Staff and the Secretary established that reinvigorating the nuclear enterprise is the number one priority in the Air Force Strategic Plan, that goes a long way. It is good commander's intent as we work through this.

At the same time, as the panels are established and we're working through the rough and tumble of resourcing anything in the Air Force, everybody is given bogies to meet, bills to pay, how are you going to share the responsibility and the burden in order to achieve all of the capabilities that the Air Force needs?

Having said that, that's good form, but in terms of substance and outcomes, my expectation is that nuclear continues to compete as well as it has, and all things, we all are aggressively engaged but transparently and in front of each other trying to achieve the kinds of capabilities that the Air Force needs to achieve on behalf of the country.

So I think the conditions are set pretty effectively. I think that as, now that Global Strike Command has stood up for the equities that General Klotz must pursue, which includes frankly sustainment, operations, you name it, that between him, General Hoffman, General Brady for our capabilities in Europe, there is an alignment that continues to evolve a bit, but I will tell you that we will collectively, I will be scored certainly by those gentlemen to see how effectively we are representing their needs and that together we are getting the outcomes that we need.

So we haven't left anything to chance. We have tried to set up structures to ensure that we are not doing this in an episodic fashion and that it's not a flavor of the month kind of set of conditions. That in fact we're following the priorities that the Chief and Secretary have established, and then competing against a broad range of vital capabilities that the Air Force has to deliver for the country.

**Moderator:** Thank you, General.

This question is for the two numbered air force commanders, and it concerns the move to Global Strike Command.

How do you feel the 20<sup>th</sup> Air Force and 8<sup>th</sup> Air Force personnel feel about the move to this new major command?

**General Burg:** I'm excited. That's not the question, but that's how I feel about it.

I was at an Association of Air Force Missileers meeting about a year and a half ago, just as all the controversy was being discovered and playing out. And the gray beards asked me one question. What's really different? Why can't we do this the way we did it back in the old days of SAC?

I said well, two things are different. The demographics of the force are very different. When I came on duty as an ICBM officer in 1979, my crew commander was a captain; my flight commander was a major. There was lot of maturity as officers on the crew force. As I looked across security and maintenance, the other two elements of what I call our critical force triumvirate, experience, competency was there with people who were focused on their mission.

That's very different today. Ninety-eight percent of our crew force's first assignment officers, lieutenants, straight out of a very good training program, but with a level of experience and maturity that you expect of lieutenants.

People ask me, well it's not really that different. Even in the bad old SAC days you only had about eight or ten percent more senior officers than the lieutenants you brought in. I said well, you're right. It's not that different in terms of numbers. But I equate that small fraction of more senior officers and maturity, it's very similar to yeast. So it's not that different as an element of component, but it's just the difference between bread with or without yeast. I see that across the NCO Corps and the Officer Corps, inside the ICBM business. So that's a different thing.

The second thing was when we distributed nuclear responsibilities across the Air Force, to Air Combat Command for bombers and Air Force Space Command for missiles, and really not as well as we might have to Air Force Materiel Command for support, we kind of broke that up, too. We didn't have somebody who said I'm responsible for the nuclear deterrent. We had a lot of people who said I do a lot of things and one of them is to be responsible for a fraction of the nuclear deterrent.

There's a huge difference in what a staff will produce to support the nuclear deterrent when you tell them that's your only job, rather than say you've got five things to do and one of them is this. I think that element of Global Strike Command will probably be the most significant as we see a major command stand up who has one responsibility and that is to support the nuclear deterrent force. Those Airmen who are responsible for the nuclear deterrent force will get the kind of support they need to be successful. I don't think we can do it without that command.

**General Carpenter:** I think down on the flight line at the lowest levels, I'm not sure they know there's a difference or even feel like there's a difference at all, and that's probably the good thing. I think as you go up the rank structure everybody is very excited about Global

Strike standing up. As Roger said, mainly because we're going to have an advocate, somebody that will be standing up and advocating for the nuclear mission. And I'm lucky because I have them right there on my base. General Klotz, and I think he's left the room so I can say these things about him -- You're not back there are you, sir?

General Klotz is "the" person to do this. No doubt in my mind. He is the exactly right person at the right time at the right place to come and do this. He has a lot of experience in the nuclear world. Smarter than all of us in that arena. So he is the right guy at the right time to come in and stand up that command. I don't think there's anybody else in the Air Force that could have done it like he will do it. And he's living at Barksdale, so instead of going to Langley and talking to my boss, I can just walk across the parking lot and confer with him every day. And Jim Kowalski and I are great friends. General Klotz I've known for a long time. I think it is going to be the right time to have this command that will stand up and push our mission like nobody has done in the last 15 years. So I'm extremely excited about Global Strike Command.

**Moderator:** Thank you, Gentlemen.

This question is for General Thomas and it concerns stewardship of nuclear weapons related material.

What progress has been made to ensure the complete control of our nuclear weapons related material?

**General Thomas:** Thank you, Mr. Chairman.

I alluded to in my earlier remarks nuclear weapons related materials also deserve special attention and consideration.

In the days of San Antonio, and I'll keep going back to history, we controlled every piece part that had the term nuclear in it or that was pre-armed or anywhere touched. When we broke that out and put it into what I'll just describe as a standard base supply system, we lost sight of about 122,000. Today we have collected, regained control of about 100,000 of those and some of those, as you might reasonably understand, we've deactivated systems, so that's why the number's not so large as the ones that we put in standard base supply.

So we've been able to go out and find that. Not just the Air Force, but every MAJCOM, every MAJCOM that has standard base supply has an opportunity for pieces and parts to get in without them knowing what it is. So our Air Force has done that, but our partners over in Defense Logistics

Agency has also done the same. They've gone through and done a lot of research and they're doing piece by piece inventory to see what they have. In working with them we've been able to now, I would say about 94 percent we understand where we are. The other 6 percent is going to come in time. It's going to be a while, but we'll have recaptured all of what we call nuclear weapons related material.

And in the process of recapturing, we're discovering that we have pieces and parts from about 1971. We're never going to use those, so we're going to detail them. We're not going to allow those to get outside of the system as we've done in the past. As we've captured those that are no longer required, we're just going to go ahead and destroy them, documented destruction of it, and do it in that manner.

So we're making great progress in the nuclear weapons related material. And as I also alluded to, our partners in the Global Logistics Support Center, just next week we're meeting to sign a Memorandum of Agreement on how their supply chain management's core competency is going to help in what we're doing with nuclear weapons related material.

**Moderator:** This question is also for General Thomas. You mentioned the Air Force is working or recently published an ICBM road map. When might this be available or shared with industry and others so those can plan for their research and development efforts and help support the Air Force in this road map?

**General Thomas:** That's a great question.

The one we just published is about 70 percent correct, so you would understand that we're not really happy to put it out. We lost core competency in how we evaluate systems of systems and the cost estimate we think is going to be there.

But we went back and found that it's a law since about 2006, 2007 that say we will modernize and maintain the ICBM weapon systems to 2030. As General Alston has said, and all of us have seen, it's probably going to be 2030-plus. So for industry, I'm not sure of an exact date when we're going to release that to you. I do know as of yesterday I signed off on releasing some cost estimates to go up to the Air Staff.

So I don't have a positive answer for you at this moment, but I'll get one back to you.

**Moderator:** This one is really for the panel and it concerns the demands for personnel with nuclear weapons

expertise. Obviously there appears to be a growing emphasis with Global Strike Command, the Nuclear Weapons Center and elsewhere for people with the kind of expertise to support the nuclear mission.

What steps do you believe the Air Force should take with regard to ensuring we have the right personnel including should we return to an ICBM only career field, and perhaps should we consider expanded use of the Guard and Reserve in the nuclear mission?

**General \_\_\_\_\_:** That's a broad question. Let me try to just hit some high points for initiatives that we have in motion here. It's a very thoughtful question and it reflects the reality that we don't have the depth in the bench strength that we had enjoyed in the past. We have great leadership intervention in the field and we have fantastic focus and extraordinarily, exquisitely committed young men and women that are making this job work every day and delivering that credible deterrence. But at these low force levels that we have right now that are fielded, we need to very deliberately develop our leadership and our expertise to ensure that we've got the right person in the right job at the right time.

Last year we established things called key nuclear billets. That's to identify those places where a process doesn't normally deliver the kind of person you need.

For example, crew members coming in don't actually fall into that category because we have a process that feeds those into the system. Squadron commanders aren't captured in that because we have a process that helps deliver the squadron commander. But if you're working on certain staff positions in a wing, if you're working at DTRA, if you're working on the Joint Staff, these particular positions that are vital to us, we need to tag so that we ensure that we identify a place where we need to have the right kind of experience.

Now what experience do you need there? And we define that.

Now the first time around, this is probably surgery with a spoon. We've got to continue to refine that in order to make sure that we establish with more precision exactly where those billets are. But we made a run at that more than a year ago and that's been very helpful.

We've also tagged people with nuclear experience with something called a special experience identifier. That is not a new concept, but the nuclear business is the first one to capitalize on it as pervasively as we have. So now we're

tagging people that have that experience and we need to have a match between having that right person that's tagged and has those credentials and moving them into the right job.

Now you can't just constitute a lot of the capability that we need. It's going to take years to develop that bench strength and that depth that we need, and the processes that we have and the changes that we've made to training and education are going to more efficiently and more effectively produce that capability and in fact we are developing a human capital development plan to ensure that we do this in a comprehensive and thorough way. That's underway right now.

But we also have to depend on, we can hire from our retired forces. I've just stood up an organization, we actually raised the flag on the 1<sup>st</sup> of November last year, but my follow-on forces, my organization got filled out really over the summer right now. So I've got a lot of fresh faces.

I have opportunities to develop nuclear expertise on the Air Staff that did not exist for quite some time. We haven't had this kind of center of mass on the Air Staff where we can develop people in a long time. That's good. But Global Strike Command, Air Force Nuclear Weapons Center, some of the expertise that we need and we need it now is not necessarily available in the current forces that we have, and we have to go find folks that can bring that expertise to bear today.

So it's a broad combination of a lot of different initiatives that is helping us in the near term, but we're building the processes to be self-sustaining in the long term.

**General Carpenter:** Just one thing to add. Probably a lot of you know, but we already have a total force nuclear relationship with the Guard. I have Guard units, a Guard unit at St. Louis that flies the B-2 today; and at Barksdale we have the Reserves, the 917<sup>th</sup>, that have always been a conventional association, but they've also now picked up, they're our flying training unit so we have association back with the active duty so that those guys will also be MPRP and nuclear qualified. So we're doing the Reserve/Guard thing already.

If I can just add real quick. I think the biggest challenge is not in the personnel, it's not in the aging system, it's in the commitment to the mission. That is where our challenge is, making sure that we stay committed to this mission for the next 15 years.

**Moderator:** Gentlemen, thank you very much. I regret we're out of time. You provided us great insight into this very high priority issue for our Air Force and our nation, and we thank you very much.

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