

AIR, SPACE, AND CYBERSPACE POWER IN THE 21ST CENTURY
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DAY ONE

SESSION TWO

Dissuasion and Deterrence in the New Security Landscape

10:30 A.M. TO 12:30 P.M.

General Kevin P. Chilton

LIEUTENANT GENERAL FRANK G. KLOTZ: Ladies and gentlemen, could I ask you please to be seated so that we could begin the second panel? Please be seated as soon as possible so that we can begin the second panel. Welcome back, everyone. I'm Frank Klotz, the Commander of Air Force Global Strike Command. And it's an honor here for all of us to participate in the 38th IFPA Fletcher Conference.

Today, I have the distinct honor of being the moderator for Session 2 panel entitled "Dissuasion and Deterrence in the New Security Landscape." Now, allow me to introduce the members of this esteemed panel. You have their more extensive and comprehensive biographies in the literature, which has been handed out by the conference organizer. So I will only make note of their current position.

First of all, General Kevin P. Chilton, the Commander of the U.S. Strategic Command. The Honorable Andy Weber, Assistant to the Secretary of Defense for Nuclear and Chemical and Biological Defense Programs. Dr. Paul Bracken is Professor of Management and Professor of Political Science at Yale University. Dr. Clark Murdock is the Senior Advisor at the International Security Program at the Center for Strategic

To be sure, today's security environment is extremely complex, as I'm sure the last panel went over extensively. A multi-polar world with multiple nuclear capable nations; add to that the rise of terrorists and their expressed intent to not only get control of nuclear weapons, but to use them, makes some "long" for the good old days of the Cold War when the world was much simpler and simply bipolar. I'm not one of those who long for the good old days of the Cold War. I think there are great lessons that we should learn from and continue to apply as we go forward. And we are remiss if we do not study and recall those lessons from the Cold War.

But I don't particularly remember being particularly comfortable in the 1970s and the 1980s as we stood toe to toe with the then-Soviet Union. In fact, I remember taking some minor comfort as a youth during the Cuban missile crisis in looking at the maps on the wall and seeing that the range of the missiles deployed at Cuba didn't quite reach Los Angeles, my hometown. But other than that, I took little comfort or ease during those time periods of the Cold War.

Given today's complexities in the security environment, at STRATCOM, we are developing a concept for a much broader and comprehensive whole of government, if you will, approach to deterrence whereby military, economic, diplomatic, political and information resources are combined to dissuade or deter potential adversaries from making decisions that put at risk our nation or our vital interests.

The concept includes defining what our vital interests are, first. Understanding what actors have the capabilities or might be considering developing the capabilities to hold these interests at risk, understanding the key decision makers and their processes for making decisions. And, understanding what those decision makers value; and just as importantly, what they fear.

Now, this is not a new model necessarily. Indeed, it's one that was used during the Cold War versus the Soviet Union, and no doubt by them versus us. Of course, then the most

vital national interest was clearly national survival. And I would argue, that remains so even today.

So rather than spend my time talking about hypothetical scenarios against vital interests, I'd like to focus in on one particular threat to national survival that STRATCOM is absolutely responsible for deterring every day. And that is the threat of nuclear attack on the United States of America. From a macro perspective, deterrence, I guess, you could say is pretty simple. We present to a potential adversary decision maker, a combination of capabilities, and will, that can deny benefits, impose costs and/or encourage restraint. To achieve one or all of these effects, we require two things: capability and will. Now, the will is provided by our political leadership reflecting the will of the American populace. As military people, military leaders, what we are chartered to worry about, and what we focus on at STRATCOM, are the capabilities that are required to provide the deterrent. So I'd like to just briefly review what the capabilities are that we need to do our mission at United States Strategic Command.

First of all, we need early warning of an attack on the United States of America. We need to know within minutes, and by that I mean less than five, when a nation or an entity has initiated an attack on the United States of America. We need to know it for a couple of reasons. One is as was alluded to you in the chief's remarks this morning, we need to be able to attribute the attack. And in fact, if an adversary does not believe we can attribute to an attack, they are probably not as deterred as they might be, if at all.

But we also need early warning to allow time for our national leadership to consider response options to the attack. Early warning is absolutely essential, an essential element of capabilities that we need.

Next thing we need is absolute confidence in our ability to command and control our nuclear response forces. Once warned, it's an imperative that the President be able to direct our forces. We need an unbroken chain that runs from the President of the United States down to our nuclear forces; command and control that not only works in

peacetime, but also in the most stressing nuclear environment. And doesn't just work sometimes, but works all the time. And our adversaries must be convinced of that.

We need delivery systems and we need trained and ready people to operate them. Finally, those delivery systems need weapons, weapons that the adversary respects to the point of fear. When you put this equation together, these four things; early warning, command and control, delivery systems and weapons, I believe we fulfill the capability requirements necessary to deter a broad nuclear attack on the United States. Add these capabilities to political will, and we're postured to provide that deterrent.

I think it's important to appreciate that these are not just capabilities that we need today, indeed we have them, but there is an enduring need for these capabilities. And how does the Air Force play in each one of these lanes? Well, in the early warning area, 100 percent, 100 percent reliance on the United States Air Force for early warning through DSP satellites, SBIRS follow ons to the DSP satellite constellation for immediate and early warning, our radar network that serves both as a space surveillance network, but also as a second part and critical component of our early warning network. One hundred percent is provided by the United States Air Force and operated by airmen.

In the command and control area, key elements of our nuclear command and control ride on infrastructure provided by the United States Air Force, the Milstar satellites, and in the future, AEHF, discus satellites. And in the future, wideband gap filler satellites, wideband global satellite systems. And in the area of delivery systems, clearly two-thirds of the triad is provided by the United States Air Force and Air Force Global Strike Command. Our ICBMs and our bombers and the capabilities that they bring to include standoff attack and penetrating attack are absolutely essential to the deterrent today, and they will be tomorrow.

Weapons. I'm going to repeat General Klotz's comment here, quote the President of the United States. Never a bad thing to do, by the way. "As long as these weapons," nuclear weapons, "exist, the United States will maintain a safe, secure and effective

arsenal to deter any adversary and guarantee the defense to our allies.” So, what does it take to deliver that guarantee? I would argue, fundamental requirements are expertise that you find in people, and infrastructure to support those weapon systems. We want to have a first class nuclear weapons program in the United States to provide a first class nuclear deterrent, not only for today but for future generations. And to do that, we need as a minimum a first class plutonium program and a first class uranium program. We need to fix the infrastructure that supports our nuclear stockpile in these two critical areas. The recent bipartisan Strategic Posture Commission’s assessment of our current facilities found them in a word, “decrepit.” This is clearly an unsatisfactory posture for us to be in today, and in the future.

We owe our people better than that. We owe our scientists and engineers better than that. We owe the nation better than that. To have a viable nuclear weapons program, we must have, first, first class facilities in which our scientists and engineers can work. And, we must give them first class work to do in order to maintain the cutting edge expertise that is needed not only to preserve the current stockpile, but to insure that we will have a stockpile that will be safe, secure and effective for future generations of Americans.

Currently, some of that work includes the stockpile stewardship program. Because we are dealing with older weapons today, and will be for probably the next 20 years, and we do not want to test those weapons, we must maintain funding for this critical program which has provided tremendous support to me as the commander of STRATCOM and previous commanders in our assessments of the safety and security and effectiveness of the current stockpile. But we need to do more than fully fund this program. We need a comprehensive stockpile management program that insures that the warheads, our warheads, have built into them the safety and security measures required in today’s and tomorrow’s security environment while at the same time insuring their continued reliability.

I want to emphasize the word comprehensive, because in addition to recapitalizing our current stockpile, we should be willing to consider the full spectrum of available options to insure we realize a safe, secure and reliable capability, strategic deterrent for future generations of Americans.

I think it's interesting to note in my view that the stockpile management program, if achieved, would also support the goal of reducing proliferation of nuclear weapons in an environment where testing is not desired. By securing the future of a safe, secure and reliable capability, we extend that assurance to our allies, which is crucial to our efforts toward advocating non-proliferation. The converse could be true, I'm sure you could imagine, if we don't manage our posture correctly to include all four elements required for deterrence, but additionally our weapons, we may find that some allies do not feel the effect of extended deterrence, placing them in a position potentially where they feel they may need to develop their own nuclear capability for their own defense. This is proliferation.

Finally, I believe an effective stockpile management program can serve to decrease our total inventory of nuclear weapons by improving the safety, security and reliability of our inventory. You may ask, where does the Air Force fit into this fourth element? It's not Air Force budget that budgets for nuclear weapons, the Department of Energy budgets. Well, the Air Force fits into this because the Air Force is one of the customers. The Air Force needs to be a squeaky wheel with regard to the nuclear weapons that sit atop their ICBMs and ride in the bomb bays and on the pylons of their bombers. We need to care as much in the Air Force about the effectiveness and the safety and security of our nuclear weapons and what we need them to do for war fighting scenarios as we do about small diameter bombs, and JDAMs and Mark 82s and Mark 84s and AMRAAMs [Advanced Medium Range Air-to-Air Missile] and the next version of A9. The Air Force needs to be a demanding customer for this deterrent force, for this critical component of the deterrent force.

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DR. MURDOCK: -- intercontinental ballistic missile launches or regional ballistic missile launches, you need to have that same surveillance and a situational awareness of the space domain. And it starts with intelligence long before anything is launched into the domain studying potential adversaries, capabilities and intents and it culminates in adequate sensors deployed around the world and networks that keep track of what's going on in that domain. Perhaps the more difficult one is cyberspace, but no different if you want to think about deterrence in cyberspace. You need to work the attribution problem.

And it is not an insurmountable problem, and it's a problem that is being worked, for sure.

GENERAL KLOTZ: Other questions? A question down here, General Miller?

AUDIENCE: Chris Miller from the Air staff. This question is for Dr. Grande and General Chilton and anyone else on the panel who would like to answer it. Just curious about your thoughts on the use of traditionally nuclear delivery systems, short or long range ballistic missiles, for deterring a range of unconventional threats, everything from biological, all the way up through nuclear.

DR. GRANDE: As you might know, there was a big debate in France after not the last nuclear policy speech, because we don't do-- we are a truly presidential system, so we don't do NPR, so we do nuclear policy speech by the President. But it's more or less the same process. So, the last speech by Chirac in 2006 which raised the big debate because he mentioned the nuclear retaliation in the context of terrorism, although he made clear that it was not the purpose, there was some misreading about that so there was a big debate that started with that.

Let's say that from a French doctrinal perspective, we are very clear about the fact that nuclear weapons are about deterring existential threats. So the point there is that the nature of the threat, whether it's nuclear, biological, chemical or conventional, is not the critical issue. Obviously, the nuclear threat is the most relevant, but the others, as if they create an existential threat, a vital threat to a vital interest, the president leaves open the option of putting a nuclear weapon at play, and we've made that clear in several contexts. And honestly, when I look at bio weapons, I really do think that it is an issue that we can't completely underestimate in that line of thinking. And that's one of the reasons I'm personally reluctant in the so-called sole purpose logic, when it's nuclear, it deters nuclear, full stop. I think there can be a danger here.

Having said this, I think we also have to be clear that nuclear weapons are not made to manage contingencies that emerge in low intensity or even high intensity warfare because there are, let's say, a more manageable-- because there are little more options than conventional means. And I think it is important to make clear to the rest of the world, also for diplomatic purposes, that those weapons are special and they're not easy to use conceptually because I wouldn't imagine a situation in which we western countries would be the ones breaking the taboo.

GENERAL KLOTZ: I wonder if any other panel members would like to comment on that?

AUDIENCE: I meant a traditional nuclear delivery means, not so much the nuclear weapons. So if we're using an ICBM, for example, not armed with a nuclear warhead ... (inaudible)?

DR. GRANDE: If I may, I have a one sentence follow-up on this. I'm sorry, I didn't touch upon that. Honestly, we have a very strong reservation on this issue for doctrinal reasons. I think it could be very complicated. I see the point, especially given the virtues of trident, of using it in a conventional-- it might not be cost effective, but it might be effective. Having said this, I nevertheless view with a certain anxiety a situation in which

a U.S. or U.K. trident submarine would fire conventional tridents, and I would wonder what would be the flying time, what would happen in Moscow, Beijing or elsewhere during that period? So I think that if you do a cost and benefits balance on the whole, the conventional use of strategically dedicated means might prove more dangerous or creating more instability than the benefits that you can expect in terms of times of delivery, and so on and so forth.

GENERAL CHILTON: I'll just add a couple of thoughts on. Again, I think it's important to go back in the history of why we even talk about prompt conventional global strike. And it was the realization that if there was a desire to go after a target with a conventional weapon really quickly on the other side of the world, the only way we could do that-- Well, we couldn't do that. The only thing we had were nuclear weapons to do that, and that's maybe in certain circumstances a threshold you absolutely don't want to cross, yet you want to achieve the effect.

The question, though, is a conventional problem called the strike, a replacement of the nuclear deterrent, though, I think is one that's very debatable. First of all, if you go back to my comments about the necessity of fear, the fear element of a deterrent, I don't fear conventionally tipped intercontinental ballistic missiles, nor do I think our adversaries. So there's a difference there in scale, if you will. That said, there could be some second or third order deterrence value from it. But I think it's very debatable that you start looking at equivalencies there.

The other thing as we look at-- There's filling this niche, and the niche is prompt capability with a conventional strike capability, adding another arrow to the quiver, if you will, to national decision makers' options. Again, as I caution in missile defense, you have to look more broadly at the context of deployment of such a system. Deployed in large numbers, a highly precise intercontinental kinetic weapon might very much look to an adversary like a first strike cluster if you deployed in vast numbers, and along with a vast missile defense system, it could be destabilizing. And so we have to weigh not only whether or not you want this capability, I think there is a valid need for it, war fighting

means, but then you also have to look at it through the lens of deterrence and what other nations might think of this as you deployed. What second and third order consequences, as were mentioned earlier, that other people might have, and they get a vote in the direction they're going to go.

In my mind, I guess to kind of close the thought out, I think of the capability besides filling the niche, as more of an escalation control weapon, potentially, which is more of a war fighting element of deterrence than deterrence itself.

GENERAL KLOTZ: Paul, you had a comment?

DR. BRACKEN: Just quickly. I mean, I think the answer to your question will look in terms of escalation control. My own personal feeling is we're confronting this very quickly with mixed loads for tridents or SSBN-X, which there's a lot of money being put into. The other point I'd make is that if you look in the first nuclear age, the super powers put enormous effort into separating conventional and nuclear forces in everything from command and control to politics. And any general who overstepped that bounds and talked about nukes tended to be fired. If you look at the North Korea/India/Pakistan and even to a certain extent Israel, you do not see that. So the threat environment we're going into, they are mixing not consciously, but they're not separating them, I would say, their conventional and nuclear forces. This also applies to command and control. And if you believed the published descriptions of the Pakistani or Indian command and control systems, I have a bridge that I'd like to sell you.

GENERAL KLOTZ: Well, I'm afraid, ladies and gentlemen, that we have run out of time in this most stimulating discussion. However, all the panelists will be around. You'll have an opportunity to pursue them individually as we move to lunch.

Now speaking of lunch, since we're starting late, it's going to begin immediately after we leave this auditorium. It'll be served in the atrium ballroom. So once again, thanks to

every member of our panel here. Would you please join me in a round of applause?
[applause]

END OF SESSION 2