

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.

Dr. Paul Bracken

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

as a non-nuclear power. When was the last time you heard anybody talk about that? I think that what's going on is a kind of soft acceptance of the spread of the bomb. Nobody likes it, I'm not claiming it's U.S. official policy, I know that it isn't. But it raises a number of questions. It's like how do we live in this world? I'm not here to come in and say that I have great news for you, we get to live through a nuclear age a second time around. One was so enjoyable that we're going to do it a second time.

But we do have to confront this issue of a broader approach that looks at living and managing through a second nuclear age than country-specific sort of how do we stop North Korea, how do we stop Iran? Now, I've used these terms, first and second nuclear age. I find a very useful methodology is to sort of separate these two things. First nuclear age was the Cold War, second nuclear age is the spread of the bomb for reasons that have nothing to do with the Cold War. And it just raises some really interesting insights, one of which I think actually came up this morning with General Schwartz when he was talking about the Air Force's tradition in innovation. And if you look at the history of the early Cold War in the last 1940s when people were asking themselves, "What do these things mean?" There's a common view out there that's grown up that the Cold War was about containment and deterrence. All of those things came much later. What first came was the bomb.

I teach at a business school at Yale, my tenure's in the business school. I have a joint appointment in political science. And when we study corporate innovation, we find a nearly universal pattern, which is to say people develop a new product, a new technology, whether it be the transistor or the internet. And then a few years ago by, and then and only then do they figure out how to use it. And the people who develop it are often not the ones to figure out how to use it. Look at Google's success and the internet compared to people who actually invented it.

So what happens is there's a learning curve that's being climbed. Now, I think this is an important insight because it suggests that countries getting the bomb now are in the-- They're sort of at a good behavior stage. They don't want to attract a lot of attention,

they don't want to attract attack, they don't want to attract economic sanctions. Once they have the bomb, or a few of them, a new crop of innovators will come in which focus on strategic innovation, of actually using the bomb.

Now, this is what happened in the United States, and let me just give a little example about the Air Force's tremendous tradition of innovation here. And it's one I've traveled around to a lot of Air Force installations and I'm really surprised that the younger generation of officers is not really aware of this. If you go back to the first crisis of the Cold War, it was the Berlin crisis of 1948. And what happened there was that in late 1947, there was an Air Force officer who I had the privilege to meet when I was very young and he was very old, a gentleman by the name of Curtis LeMay, and he was in charge of European air operations, and he developed all of these tactics for moving bombers around which could bolster the western position in central Europe against the Soviet Union at that time. Because the tremendous force disadvantage against the United States, they outnumbered us 20:1. Yet, we won the Berlin Crisis, and we won it largely through air power.

And what's really fascinating to read what I know about business school innovation and companies, because Curt LeMay was doing exactly the same thing in 1947 and '48. He did all of these hopping bombers around in West Germany and England on a smaller scale. When the Berlin Crisis hits and President Truman turns to the Air Force for assistance, he has these on the shelf options that he's thought about and actually practiced, and they're implemented on a global scale when the Berlin Crisis hits in full force in the summer of 1948.

Let me just give you one example. In the fall of 1948, Harry Truman's running for President in the election, and he and his presidential opponent, Tom Dewey of New York, come up to New York City and sit together beside each other in the stands. September, 1948, bitter political rivals, to watch during Air Force Day a global exercise in which SAC bombers come from Germany, Iceland, Japan, B29s, fly in and converge on a practice bombing run.

Now, I don't know for a fact that they invited the Soviet air attaché to the exercise, but my guess is that he was there in spirit, and he saw what was happening. That if the U.S. could do this. So my point here is that the Air Force has this tremendous innovation. I don't think those tactics from 1948 are applicable necessarily to the 21st century, but it shows you the tremendous innovation in strategy, not just in the technology, that runs through the Air Force.

This notion of a second nuclear age, sort of what is it, when it began, I think obviously some major differences between the two nuclear ages and I'm not saying the second nuclear age is like the first. I'm saying if you look at them together in a comparative way, you get more insights than you otherwise would. Really, the most obvious thing is that there's many more players in it. It's an end player game, so to speak. And that really changes a tremendous amount. Think of all of our literature on deterrence and escalation, is virtually for two player games.

Now, we have an end player game and the dynamics there involve coalitions and getting one side into your coalition, keeping others out of the other side coalition. And I think this has a lot to do with looking at the question of a nuclear Middle East that could emerge.

Now, we know from the first nuclear age, so people talk about it as if it was a two player game, but we also know that that was a fiction. France, Britain had nuclear weapons, China had nuclear weapons. In fact, there were several crises which were multi-nuclear, okay? There was the 1967 and '73 wars in the Middle East and we know that Israel put her nuclear forces on alert in both of those instances. We know that in the 1969 China/Russia standoff, China went on nuclear alert. I know this because I've interviewed the Chinese generals responsible for dispersing the handful of nuclear weapons that they had.

But the interesting insight I'd make to you, and what's different about the two nuclear ages, the first and the second, is that it was a very useful fiction to maintain the myth that it was a bipolar world back then. Because each side could hold the other responsible for the actions of the other subordinate powers. We could hold Moscow responsible for what China did, they could hold us responsible for what France and Britain did.

Now, this is really a fundamental difference between where we are now and where we were back in the Cold War. There are independent nuclear decision making centers. Some of them are enemies, some of them are rivals, some of them are friends and we have everything in between. It's an end player game, and we need to think deeply about how we influence and signal and restrain enemies, clearly, but we also need to think about signaling how we deal with friends. We have nuclear allies, Israel being an example, and really there's surprisingly little thought-- I'll get to this in a moment, some other aspects of this-- for how we talk to them about these clearly very sensitive issues.

If I had to leave sort of one big take away point with how you think about these when you go back to your shop, I've mentioned a couple already, think of these as a learning curve. What would the learning curve for a nuclear Iran or a nuclear North Korea be? Very interesting point, very interesting framework to have a debate on. But I think there's a more important one, and it has to do with nonproliferation and containment strategies as a way to deal with, manage our way through a nuclear age a second time around, on the one hand. And on the other hand, questions of dynamics and stability. Questions of dynamics and stability have received almost no attention. How do we operate in a nuclear crisis in the Middle East? What is our objective? Is it to terminate it? Is it to influence and restrain an ally? Is it to deter through the threat of escalation how an enemy deals with it?

So on the one hand, we have strategies for nonproliferation, which I find when I come down to Washington, or any university center, I don't know that there is a university in the United States who doesn't have a center for nonproliferation. And they always tell

me the same thing, that the spread of nuclear weapons is dangerous. I absolutely agree. And we're moving into a containment. But I want to suggest another critical question is how do you deal with the dynamics of these systems when they clash with each other, either in the short-term or the longer term?

Let me just close on a couple of points about deterrence and escalation, which we've been asked to say something about. I could fill up this room with a literature academic think tank government agencies on deterrence, post Cold War deterrence. You can't deter a terrorist if they want to go to see Allah. Other countries will not be like the Cold War in how we shape their behavior. I don't think I've ever met somebody who has actually argued that the Cold War will replay itself out. So this question of focus on deterrence is important, but I think there's another literature which has not received anything close to the attention that the literature on deterrence has, and that's on escalation. Because while I could fill up this room with reports and books on deterrence after the end of the Cold War, I don't think I could fill up a handful of seats with books written about escalation. For example, how do you measure escalation? What are the different frameworks about escalation? Is it about the intensification of the use of force? Is it about crossing thresholds? How about a paper or a subject on counter escalation, when somebody escalates against you, what do we do? On those matters, I found very little attention.

And the last subject I would just say we need to think a lot more about, and which I have at least some preliminary thoughts, is the question about strategic interactions in a multi-nuclear world. We already have nascent arms races occurring in a swath of territory from the eastern Mediterranean to the Sea of Japan. There's a connected, unbroken belt of countries that either have the bomb or are in missile range of it. You see this with especially in the Middle East. If you look at the Israeli nuclear force, for example, you don't have to have an advanced degree in operations research to show that Israel is going to have to change her nuclear posture in a major way. It was a posture never built for survivability because her enemies didn't have the bomb. It was a posture built for secrecy to conceal it from the super powers its existence.

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 or 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