

I'll begin by describing the major proliferation trends, state and non-state-driven. And then, turn to the implications for U.S. security and for the Air Force. I'll do this primarily by giving my views on what we should and should not be doing to dissuade, deter and defend against the threats that we're likely to face in the near- and mid-term futures.

So, what are the main trends? Let's start with new states acquiring nuclear weapons; that is, states beyond the five recognized powers in the NPT and the three states that never signed up to that treaty. With regard to North Korea and Iran, both, as you all know, have longstanding programs that are moving forward, in terms of the sheer size of the effort and the threat that they represent.

I would just note the statements made by Pyongyang, formally declaring itself a nuclear weapons state, and announcing the near-term start of its uranium enrichment as a complement to its longstanding plutonium production program. For its part, after being caught red-handed with a second enrichment facility under construction, Iran has recently announced that it's going to increase its nuclear facilities five-fold.

It's fair to say that there is a trend here. And, I think it's fair to say that it's not positive. In addition, there are other states hostile to the United States that may seek to acquire nuclear weapons: Syria, Burma, even Venezuela comes to mind. And then, there are states that are currently allied with us that may decide, for any number of reasons, to go nuclear themselves: Japan and Taiwan in Asia, Egypt, Turkey, Saudi Arabia in the Middle East, and the list goes on.

As with countries like Burma, it's not certain that this wave of proliferation will happen. But, if North Korea and Iran do succeed in their quest, or if the United States is not perceived as providing a reliable and credible nuclear guarantee to our friends and allies, the odds go way up that this cascade will happen and that the NPT regime will fail.

Beyond the prospects for horizontal proliferation, that is nuclear weapons spreading to states that previously didn't possess them, are the trends in vertical proliferation. And here, as Bob Pfaltzgraff mentioned, China has to be considered the greatest wildcard. As part of its build-up

of anti-access capabilities across the board, China is undertaking a substantial modernization of its nuclear forces,

In fact, China is unique among the NPT-recognized weapons states. While all others have reduced their nuclear postures, China is moving in the opposite direction. This includes development and deployment of next-generation strategic systems and as well as tactical nuclear arms, encompassing enhanced radiation weapons and nuclear artillery.

According to the 2008 *Military Power of the People's Republic of China*, Beijing will probably soon deploy solid-fueled, road-mobile ICBMs, together with submarines carrying intercontinental-range missiles. By 2015, China is projected to have in excess of 100 nuclear-armed missiles, some of which may be MIRVed.

China's search for asymmetric advantages also place great emphasis on perceived U.S. vulnerabilities in space and cyberspace. Notably, there are also indications that China is developing a capability for electromagnetic pulse (EMP) warfare. I believe others on the panel will have more to add on China and its growing strategic capabilities.

Where China will stop in its buildup is yet to be determined. Traditionally, Beijing has been satisfied with what it has called a minimal deterrent, not attempting to match the U.S. or Russia. In part, this has been driven by cost – both in an absolute sense and in the context of facing force levels many times its size. Today, China is better postured economically to pay for larger forces. And, if the U.S. goes to very low levels, Beijing may well see near parity as affordable, especially if the nuclear future of Japan is uncertain.

Russia must also be considered in any accounting of nuclear trends. Russia is a hybrid case. The top line trend is down – at least for launcher and deployed warhead numbers. While modernizing its forces, Moscow will go to lower numbers in these categories with or without a START follow-on agreement. But its overall nuclear force levels, including the so-called non-strategic forces, will remain high as Russia has increased its dependence on nuclear weapons in its defense doctrine and planning.

But numbers tell only part of the story. Under Putin's leadership, Moscow seems determined to define the United States as the enemy. It also appears determined to define our relationship through the prism of nuclear weapons – as we are witnessing in the revived arms control dialogue. This gives Moscow the best opportunity to limit U.S. modernization (offensive and defensive), to achieve more than parity on the nuclear scale (given that so called nonstrategic weapons are not counted) and it also gives Russia some vestiges of the old super power prestige.

With regard to non-NPT-recognized nuclear states, India and Pakistan -- according to press reports -- are both expanding their nuclear arsenals and missile forces. India's posture reflects Delhi having one eye on China and one on Pakistan. Pakistan has both eyes fixed on India.

Pakistan is today a vital partner in the war on terror -- but also a country that many feel could be on the verge of failed-state status. It is in Pakistan, in fact, that we confront the most visible nexus of terrorism and nuclear weapons and most everyone's favorite candidate for becoming an instant nuclear nightmare.

This points to a third proliferation trend – dealing with what both President Bush and President Obama have described as the preeminent threat we face as a nation – a terrorist with a nuclear weapon. We know that terrorists groups have sought -- and are seeking -- nuclear weapons; and most believe they would not be reluctant to use them.

Preventing terrorists from acquiring nuclear weapons has been a principal goal of both the Bush and Obama administrations, especially through Nunn-Lugar and other CTR nonproliferation assistance programs. But more needs to be done – as both the supply and demand trends are far from assuring.

Let me now move on to the implications of these trends – starting with diplomacy. My view is that, while North Korea will at times be willing to discuss disarmament and may even be willing to accept temporary constraints at Yongbyon, it will continue to develop its nuclear arsenal. But North Korea will not voluntarily abandon its weapons and will continue to proliferate to third parties, such as we saw with its export of a reactor to Syria. The pattern is that it will sell anything to anyone for the right price. This could include sensitive nuclear materials and perhaps even weapons.

We can make the situation worse by paying bribes for empty gestures, such as the Bush Administration did with the demolition of the cooling tower, or we can make it better by imposing costs on Pyongyang, such as through the Proliferation Security Initiative or targeted financial moves as we did with Banco Delta Asia.

We can also do further damage by repeatedly drawing red lines that we don't enforce when the Dear Leader steps over them. But, without China, we cannot

alter the fundamentals. The real question is whether we are willing to impose costs on China – maybe in the economic field – to get serious on North Korea. I don't see us doing that.

Iran is another – in fact much greater – proliferation challenge. Unlike North Korea, Iran is a real country, with tremendous resources and much different goals. While the regime in Pyongyang survives because of its isolation, Teheran has expansionist aspirations and the desire to become the dominant power in a region vital to the United States.

As with Korea, we can talk about imposing severe sanctions, as we have been doing for the past six years while Iran's nuclear program has expanded geometrically. But we know it won't work because Russia, China and even some of our friends will not go along with effective measures that would entail real costs.

I'm sure some of you had the opportunity to read in Sunday's *Washington Post* about last week's failed meeting of top diplomats in New York. If you didn't have that opportunity, don't worry, because you've read the story before; in fact, many times before. It just seems incredible to me, not that we're having the same futile discussion time after time -- we often do that in diplomacy – but rather that these futile meetings remain at the center of our diplomatic strategy for dealing with such a major threat to our security. And, these are the meetings that occur without the Iranians.

As for direct diplomacy with Tehran, we can continue to talk about engagement, even though the deadline set by the Obama administration has expired. Moreover, we can pretend to take comfort in intelligence estimates that understate the threat and undermine our ability to respond to it, as we saw with the December, 2008 NIE. But, none of these approaches will contribute to our ability to dissuade further proliferation or our ability to defend against the threat.

I would emphasize that, for North Korea and Iran, this is not a call for ending diplomacy. It's a call to recognize that the premise of our diplomatic approach must be changed. While the ideas of the six-party talks for North Korea and effective sanctions for Iran are conceptually appealing, they just don't work.

And, given where these two countries are in terms of the threats they represent, we need to consider diplomacy and defense planning in a different context. And that is in terms of deterrence, extended deterrence, and the necessary steps to ensure our security in the event that deterrence fails.

So, what are the implications for defense planning? Now that Pyongyang has nuclear weapons and Tehran is very close, it's time to make sure that we have both the offensive and defensive capabilities and planning in place to meet all feasible contingencies. For example, being able to best ensure, to the degree that we can, that nuclear weapons are not transferred from North Korea to third parties, or being able to protect ourselves or our allies in the event that there is a near-term attack on Iran's nuclear infrastructure, for which we will certainly be blamed, whether or not we are directly involved.

We also need a much more proactive day-to-day posture, building on and employing national and multilateral counterproliferation capacities, such as through PSI and other efforts, to detect, stop, and defeat these programs and their transfers. This requires a commitment to the mission by the Services, including paying for the required capabilities, such as improved sensors and expanded interdiction capacities.

Turning to China, while our relationship is complex and interdependent, and it certainly will be competitive, it doesn't have to be adversarial. However, we must take very seriously the fact that Beijing sees the United States as its main strategic adversary in the future. It says so. And, we need to listen to what the Chinese are saying. And we need to do what we can to avoid miscalculations.

We need to begin by improving our ability to defend against ongoing Chinese efforts to build asymmetric capabilities, targeting U.S. vulnerabilities, in space, cyber and elsewhere that China seeks strategic advantage.

We also need to recognize that effective deterrence of China in the future has both offensive and, I think very importantly, defensive components. In the nuclear arena, the United States must take seriously China's perception of its nuclear weapons as effective tools of military power. For almost two decades, the United States has allowed its nuclear posture, its stockpile, infrastructure and expertise to atrophy across the board. The United States cannot risk China perceiving the United States as either unprepared or unwilling to respond to Chinese nuclear threats. And, China is prone to making nuclear threats against the United States.

Most important, for both the U.S. credibility as an ally, and to discourage further proliferation, the United States should reaffirm its formal security guarantees to allies in both words and actions, including the nuclear umbrella. To be credible, this reaffirmation must be backed by an effective, reliable and safe nuclear posture. The Air Force leadership is well aware of the central role it plays in this essential task.

Regarding Russia, we need to avoid recreating an adversarial relationship for yet another generation. We need to avoid outcomes that encourage further proliferation. For example, by allowing Russia to achieve superiority in offensive nuclear arms which, to our friends, include what we dismiss as theatre or tactical systems, but which, for them, are very strategic. Or, by conceding on missile defenses that we need to deter real world threats, such as North Korea and Iran.

We also need to continually conduct a reality check, asking ourselves whether or not we're on the right track. When does the arms control process take over to the detriment of our security, of our ability to maintain an effective deterrent? While Russia wants to drive down the number of U.S. delivery vehicles to the level that likely will go to for financial reasons, Moscow is not likely to agree to super low levels of operationally deployed warheads.

let's begin with a few questions from the audience, and who would like to be the first questioner? Yes, please? Please identify yourself and wait for the microphone.

AUDIENCE: Sir, I'm John Shaud, Air University. Like to ask specifically Bob Kehler a question. The chief mentioned as one of the approaches of the 21st century, the whole of government. And you used a remarkable analogy talking about the wonderful world of cyber with that football field to even include the fans. And my question to General Kehler, as you approach this with a whole of government view, sir, how are we doing marching down that road?

DR. PFALTZGRAFF: Hold that question, and now let's get a few more. Who would like to be next? Please, the microphone will come around to you right there. Can you pass it across?

AUDIENCE: Hi, Wing Commander Andy Challen from the British Embassy for General Kehler and also Mr. Thomas. We know that the east and the Chinese and the Asians have got a very patient attitude and we've heard about the long-term reconnaissance that they take part in, and we know that the feudal system hands down the history through the generations. In the west, we are dealt a blow to that by the political agendas and the timings of how we do things. And we've heard today with the speed of reaction of space and cyberspace, how do we mitigate those factors?

DR. PFALTZGRAFF: Okay, who would like to go next? Over here, we have a question?

AUDIENCE: Brian Green with Systems Planning and Analysis, a question for General Kehler. General Schwartz talked about the need to make space systems more responsive, and I wondered if you could give us your current thinking on how to make those systems more responsive, and for whom you would make those more responsive?

DR. PFALTZGRAFF: Okay, thank you. One or two more, we have time? Please, over here?

AUDIENCE: Mr. Hermann, could you tell us what size warhead the commission looked at? The traditional view has been that only megaton class warheads can create the kind of EMP field

that would be catastrophic for the U.S. economy. So could you look at that? And for Bob Joseph, what are the lasting contributions of the Bush Administration to counterproliferation, particularly the PSI?

DR. PFALTZGRAFF: Okay, one or two more? Who else would like to go? Is there one more question? Yes?

AUDIENCE: Ted McFarland from Booz Allen. This is for General Kehler. I'd like to hear your views on how industry can help with this-- you talked about cyber acquisition and the need for speed and how we can help close that gap.

DR. PFALTZGRAFF: Okay, well then let's take those questions. By the way, even though they're directed at a particular member of the panel, or members, others I hope will feel free to help to respond. So let's begin, and maybe General Kehler, since you had so many questions directed to you?

GENERAL KEHLER: Yeah, I hope these are panel responses as well. It's been so long I talked, I forgot what I said.

DR. PFALTZGRAFF: The audience hasn't forgotten what you said. [laughter]

GENERAL KEHLER: Okay, let me start with cyber, General Shaud, and your question about whole of government. No question about this, this is a whole of government issue. I think you all hear that. You certainly look at that in the articles that are being written and the discussions that are being held. Here's what we have focused on to date. The Air Force has come through a very interesting set of discussions about where we wanted to go regarding cyberspace. We made some decisions, the Chief and Secretary made some decisions a year ago at Corona about assigning lead command responsibility to Air Force Space Command, standing up 24th Air Force, going to the AF ISR Agency and having them establish a group that's going to be in direct support of 24th Air Force, giving Dick Weber, the commander of 24th Air Force command authority over the entire Air Force network, et cetera.

If you listen to all of this, this is really about getting the Air Force's house in order regarding cyberspace and starting there. I think we have done that. And here's what we've recognized in the fairly brief time that we have now been consolidating these cyber activities in this command as lead command. What we understand is that there are many lanes regarding cyberspace and that we are in one of them. We recognize that we are not alone, really, even in the lane that we are in. Our Service colleagues are in there with us. We recognize that we are part of a Department of Defense activity that is still emerging and shaping. And we recognize, I believe, as I listen very carefully to the combatant commanders, both General Kevin Chilton, who you'll hear from at a later point in the conversation who has responsibility, unified command plan responsibility for these activities today. And as they are working their way through what the Secretary of Defense has directed us to do as a department and standing up U.S. Cyber Command, we recognize that this is a much bigger issue than the Department of Defense.

And so at this point, our focus is really, sir, on making sure that we are looking at ourselves with two major pieces; actually, three. One is doing a better job in installing the wherewithal to protect ourselves and make sure that we can assure the missions. The second is to make sure that we are able to respond to what the joint war fighters are going to need in terms of Air Force participation and how we will present forces, how we will establish those command relations and all of those mechanical things that are necessary for us to take Air Force capability to the joint team.

And then finally, what we do regarding people and how we prepare ourselves to compete, if you will, for the talent. And you heard the chief mention something about that earlier today. That will be a very interesting piece of how we will go forward. And so we are looking at some alternatives, actually, to take back to the Chief and Secretary on how we will do better on that part in terms of organizing ourselves and training and preparing our people.

We do know this is a bigger picture than us, we can tell you. And Dick Weber, who was here, could tell you that our initial activities, we are in fact supporting STRATCOM today with their activities. As I say, General Chilton is responsible for these activities today within the

department. And so we know from their experiences and our component experiences with them that this is clearly a whole of government activity. In some cases, my football field analogy suggests to me that we will not be the major player in cyber and that gets back to it depends on what happens on the football field. You know, if somebody comes in and spray paints something over a player's helmet, that's not an Air Force problem. It's somebody else's problem. If somebody hits somebody and there are civilians who happen to be passing by, that's not the football referee's problem. So this is going to be a very interesting set of authorities, responsibilities, and recognizing that we must be very mindful of protecting Constitutional rights.

DR. PFALTZGRAFF: Let's go across the panel and continue with Bob. Would you like to respond to some questions?

DR. JOSEPH: I wouldn't want to try to respond to any of the technical questions. My background in physics is just two courses deep, physics 101 and physics 101. [laughter] So let me just comment on PSI, on the Proliferation Security Initiative. This was one of the principal new tools that the Bush Administration put in place relatively early. I think it was May 2003. And it's one of a number of tools. The others included globalization of cooperative threat reduction efforts, or Nunn-Lugar type programs, through G8 funding; United Nations Security Council Resolution 1540; the Global Initiative to Combat Nuclear Terrorism, which is an initiative that President Bush and President Putin sponsored together, as they did with yet another initiative on managing the growth of nuclear energy in a way that hopefully will be more proliferation resistant. But these tools, and other tools like them, including in the defense area, such as missile defense, as well as new concepts for deterrence, have to be seen in the broader strategic context. And specifically in the three tier strategy that the Bush Administration put forward. And, as far as I can tell, is still being implemented by the Obama Administration.

PSI specifically has now grown to 95 countries. As most of you know, it's aimed at disrupting the trade in proliferation. It has created, I believe, a more proactive stance for the international community to deal with the trade in proliferation. And it has had a number of key successes, many of them are classified given the nature of the work that has been done through various

intelligence channels. But one that does stand out is the interdiction of the BBC China in October of 2003, which did lead to the unraveling of the A. Q. Khan network, as well as to the Libyan decision to abandon its nuclear, chemical and long-range missile programs.

DR. PFALTZGRAFF: Thanks, Bob. General Kehler has a comment or two more to make on questions. So let's go back to general Kehler.

GENERAL KEHLER: I didn't want to ignore the other two questions that came my way. So before we go down the rest of the panel, the question that was asked about the Chinese and sort of how we view them; just let me offer one thought about this. Remember, those of us who have children, remember when you would take the kids to the doctor for their shots when they were little? The doctor always had a blue bear. They would hold up the blue bear like this, and the kid would look and then you'd get the shot? I'm not so sure that the direct ascent ASAT isn't the blue bear. I think we need to be mindful of what the other panelists have said here about philosophy and strategic patience and strategic intent and the other things that go with that.

And so what we need to be careful of, it doesn't matter who we're talking about here, is we need to make sure, I think, that strategically we do not find ourselves in some kind of strategy that imposes things on us, that imposes costs, that imposes those kinds of difficulties on us without being certain or at least fairly certain, that we are on the right strategic path. Which gets to my point about mission assurance here. This isn't about trying to launch the equivalent of the *U.S.S. New Jersey* to orbit, which would take a lot of lift, by the way. I'd use Dr. Joseph's two physics 101 classes and tell you that that's a lot of lift that would be required.

And the second thing, someone asked about responsiveness and how we're thinking about space and space responsiveness. I believe that a responsive space capability that as strategic command has outlined to us, has tiers associated with it-- not t-e-a-r-s, t-i-e-r-s-- tiers that would start with the things that we already have and making those more operationally responsive and goes through a series of steps that allows us to have a national strategic capability to augment or replenish or reconstitute some amount of our capability in concert with a mission assurance

approach, which means that we would be looking also at air and cyber for part of that, or maybe a significant part, of that reconstitution depending on the scenario we find ourselves in.

I believe that kind of a responsive space contribution would contribute to deterrence. And that's what our objective ought to be as we go down that road. And I believe today, we have a number of elements that would need to come together to have that. We need to have responsive launch vehicles, we need to have a common command and control system so that we don't redo a command and control every time we put up a small, cheap satellite. We need to have common buses, et cetera, with standards. There are some great things going on, and I know Curt Bedke, (Major General, Commander of Air Force Research Labs) is here, the Air Force Research Lab, and elsewhere, about plug-and-play kinds of things. And then what we need are militarily useful sensors that could plug into them. So those pieces are in work at varying levels. I would tell you, I think we've got three of those four, pretty substantially in work today. We don't like what it costs, but I think in terms of a crawl/walk/run approach for national security and a strategic capability for us to contribute to deterrence, I think a responsive space capability is necessary.

DR. PFALTZGRAFF: Thank you. Bob?

DR. JOSEPH: Let me just follow up on the China ASAT. It happened in early January of 2007, on a Friday. During the weekend, the State Department undertook a number of steps to coordinate the response with allies. On Monday, we called in the Chinese ambassador. I had the opportunity to do that. The Chinese ambassador sat there and responded: (A) that he didn't know anything about an anti-satellite test; and (B) that China opposed the weaponization of space. Needless to say, I did have some fun in that meeting.

But what we did afterwards, I think, was even more instructive. And that is we made the rounds to Congress, to argue that this is a major wakeup call and that we need to change the way we approach space, and particularly our vulnerabilities in space. As far as I can tell, no one has answered that call. I hope I'm wrong, but I don't believe I am.

DR. PFALTZGRAFF: Thank you. Dr. Hermann, would you like to talk about the megatonnage issue?

DR. HERMANN: Megatons, right. I can assure you that the commission spent a lot of time on that subject, and there's a couple of elements of what is technically required. And the discussion and the material and the information in those sessions were classified. And so, I can't quite, but let me say as a layman what I think I can tell you.

That both we and the Russians know how to design bombs that will create high electric fields, E&P fields with other than megatons total output. They will create the electric component. It probably takes a big bomb to create a truly disastrous magnetic E3 component.

The next question is, well, would any minor player with a handful of weapons or one or something, would they be able to have it? And then there is a contest between the intelligence community which says we see no evidence. And then there's Rumsfeld who says the absence of evidence is not the evidence of absence. And so there's a discussion as to whether somebody would have the ability to create it. But on the other hand, stealing apparently is a behavior of humans. And so stealing ones that are already developed by somebody seemed to be a possibility. So there is a question about whether or not the cheap shot by a minor player will be fulfilled by some other than a-- it won't be confined to a super power issue. And I would say I came away persuaded that I don't know what people have, but I see a plausible way for somebody to destroy my country unless we actually take modest measures to keep it from being a catastrophe.

DR. PFALTZGRAFF: Timothy Thomas?

MR. THOMAS: With regard to the question about China, I would say they already have a whole of government approach. They really do look at this whole issue holistically. There's an old saying, quantity has a quality all its own. And when you've got about 350 million Chinese who speak English, you have lots of people that they mobilize for cyberspace issues. They also have information industrial exercises over there, they have mobilization exercises quite often. So

they really are practicing now in peacetime for something which doesn't sound all that good, to be quite honest with you.

Terminology seems to be to me the one bugaboo that we have in this country. We are so focused on our sound bites and we live by our sound bites and we expect others to live by our sound bites. And I think that's just one of the biggest mistakes we make. For example, take the term asymmetric warfare, I challenge anybody in this room to come up with a Chinese definition of it. They don't think like we do. Asymmetric warfare, one of the definitions I saw was the application of abnormal logic through the exercise of 12 crafty tactics. Now, that's something that we don't even come up with in this country. And if you don't understand where they're coming from, what strategy is, how they look at these terms, you really are off base from the beginning.

General Schwartz's comment this morning about we need space control, really is something that strikes at the heart of China. They look at control as more important than dominance. They would refer to something like Kosovo and say, "You had information dominance, but you still didn't have information control because the Serbs were able to influence you by some of the things they did on the ground and cause you to shoot weapons at mock-ups and those sort of things." Control is a huge issue for them and it lies at the heart of what they're doing, I think, in many different arenas.

The last thing I'd like to say is just the fact that with the football analogy, I like it. I like this whole idea of being on the playing field. The only thing I worry about is are we scouting the other team? Do we really know what the other team's doing? And if these rules and regulations are not the same, are they playing rugby when we play soccer? Or as General Kehler said, are they the ones who are going to spray paint your face because that's part of their rules and regulations? You really have to think hard about these analogies because it isn't the same team. And if we don't scout them, if we don't know what kind of offense and defense we're playing and we know what we're doing, so what? We got to know what they're doing, too. So, thank you.

DR. PFALTZGRAFF: Dick, you have the last word?

DR. SCHULTZ: Well, I would note that the concept, whole of government, really grows out of the wars that we've actually been fighting since 2001, not ones that we might have to contemplate in the future. And that concept deals with the kind of security environment that I outlined. In Iraq, in Afghanistan and elsewhere, what we found is that we needed a different approach to conflict and security. We learned it the hard way in Iraq, but we learned it.

Now, what that means is that military forces and an array of other capabilities, or military forces doing things that other agencies of the government ought to be doing, have to come to play in order to stabilize the situation and deal with the kinds of conditions that we've been dealing with in the wars we've been fighting. How well are we doing in terms of developing this whole of government approach really is the second part of this project that I mentioned to you.

We're doing okay. To use a football analogy, since it seems prevalent here today and since I played that game for seven years, we've advanced the ball a bit, but we have a long way to go in terms of dealing with the irregular warfare. Now, remember the QDR in 2006 said this regular warfare environment was increasingly what we were going to be involved in. Secretary Gates last year said it's as important, irregular warfare, as the other kinds of warfare we may contemplate fighting in the future. But in terms of a whole of government approach, we're not there yet.

DR. PFALTZGRAFF: I would like on our collective behalf to thank this outstanding panel for its outstanding contribution in helping us to set the stage for what is to follow in this conference. I realized that we are running a few minutes behind schedule, so therefore I hope that you will make the break very brief. Certainly at the maximum, 15 minutes. We will run, of course, a little bit into the lunch hour with the next panel, which promises to be another outstanding contribution to this conference. So again, we adjourn the panel at this time and welcome the new panel in a few minutes.

END OF SESSION I

