

# **ARMS CONTROL ASSOCIATION**

## **THE NEW NATIONAL SPACE POLICY: PROSPECTS FOR INTERNATIONAL COOPERATION AND MAKING SPACE SAFER FOR ALL**

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VICTORIA SAMSON: Hello everyone. I think this is on. Thank you for coming. My name is Victoria Samson. I am the Washington office director for the Secure World Foundation. We are very delighted to be able to host this panel and we appreciate you guys responding at such short notice.

We were waiting to see when the national space policy would come out and we are very excited to have such experts here to talk about it today. We are delighted to be co-hosting for the first time with the Arms Control Association. We hope this will be a first of, perhaps, many ways in which we can share space and security issues.

A little bit about Secure World before we get started: The Secure World is a private-operating foundation that wishes to focus on the sustainable use of space. So the release of the new national space policy on Monday frankly delighted us because it acknowledged the need to increase the sustainable use of space for everyone to build and enjoy. It bolsters United States leadership in space and maintains space as a peaceful, secure and sustainable environment for the benefit of all.

We respect the emphasis on the need for increased space situational awareness that indicates how important it is to be able to benefit from space for civil, commercial and military uses. We appreciate the focus on international outreach. We believe this accepts the changed reality of space as a global commons. And we appreciate the idea that there is a look at arms control as an option if it is equitable, verifiable and increases the United States national security.

Of course, the question is, what does that mean in terms of policies? How does this change from the 2006 national space policy? Well, we have this panel's experts that will be discussing it. I am going to turn it over to our moderator, Jeff Abramson. Jeff?

JEFF ABRAMSON: Thank you, Victoria, and the Secure World Foundation. This is the first time, I think, we have partnered. I am looking forward to many more. I also want to recognize and appreciate the expertise within this audience. We announced this event on Tuesday and 58 RSVPs came in – more, just as we were going out the door – from a wide range of expertise and issues. So I'll be interested in your questions and having the conversation that will occur after the panelists.

About nine months ago, actually, Victoria and I sat down and said hey, we should maybe host an event. And we were waiting for the right moment and I am glad that this is the right moment and not zombie satellites or conjunctions that – intentional or otherwise – often occur. And while on that topic of things that shouldn't be too close together, I will ask you to put your cell phones in "silent mode."

I am going to make a few framing remarks and then introduce our panelists who will each – I’ve asked to talk for 10 minutes or less – I will hopefully not need to prod – and then turn things over for questions.

When we do get to questions, please do wait for the microphone. We are doing a transcription of the event, which, given that the July 4<sup>th</sup> weekend is coming right up, I imagine will come out in the middle of next week, but possibly tomorrow.

The publicly available version of this document is only 14 pages long. And the issues I work on – arms control and security – are only two pages of the document, which I think is fine, and actually, what that reminds me of and what I think the policy highlights is that space is an ever-increasingly global commons, with actors relying on it for a wide range of needs, not solely security, but also communications, commercial and civilian applications, as well as economic and sustainable development, not only in countries that have major space assets but those with few to little to none, that this use of space really is a global use. And this topic, the panel will talk about it broadly, but with the lens of international cooperation and multiple ways that international cooperation can keep space safe for all.

The Arms Control Association, where I work, is about to turn 40 years old. We have been working on these issues for a long time, supporting public understanding and effective arms control policies. As someone in this field, I am certainly encouraged by the statement that Victoria was repeating around, considering proposals and concepts for arms control measures: quote “if they are equitable, effectively verifiable and enhance the national security of the United States and its allies,” unquote.

All of those reasons that I have been talking about, why the catchphrase prevention of an arms race in outer space has held in my community, I feel are validated to a great extent in this national security policy. Given U.S. reliance, as well as other countries who are emerging, the idea of targeting these assets in space with terrestrial weapons or placing weapons in space that would target terrestrial, atmospheric or other space weapons just does not seem to make sense.

But as a policy document, not surprisingly, the NSP does not contain many specifics, as Victoria was mentioning. And in the coming months and years, what I am looking forward to seeing is development of ideas that run the gamut of international agreements. That can be simple declaratory policy to bilateral instruments, codes of conduct, norms of behavior, a lot of which, as you all know, is happening with the EU code of conduct, happening around space debris mitigation or prevention, to the extent of even the more traditional arms control things, which, I’ll note, include discussions around kinetic energy anti-satellite tests and use bans, too. And, without getting into the definitional issues, preventing weaponization of space.

As a final point, I just want to mention that what I see in this document is an emphasis on transparency and confidence building, which is not something that other countries do. It’s something that all countries do, including the United States. And I think this will be one of the challenges, for the United States to regain the trust and confidence of the international community. And I believe it is on this path already and I look forward to seeing that happen in

the future. And as we think about ways to increase transparency, I think that might broaden the scope of things that we consider effectively verifiable as well.

Let me now briefly introduce our speakers. We all chatted in the short two days before this event and realized there was way too much to talk about. So I will tell you what I think they are going to talk about, but who knows what is going to come out in the end?

We will start with Marcia Smith, the founder and editor of Space Policy Online who, as many of you know, has been working this field for almost four decades, and a long time, 31 years, at the Congressional Research Service. I have asked Marcia to talk about the content of the national space policy, especially from a civilian angle: what is different about the policy and what is not new, not different about the policy and maybe why those changes are there. And I have asked Marcia and the other panelists to suggest things they are looking to see or want to see moving forward.

Ben Baseley-Walker is a legal and policy advisor for Secure World Foundation here. In my mind, Ben is always jetting off to Europe or places around the world for U.N. COPUOS meetings or other events. It might not be true and he can disabuse me of that idealized notion. But he is certainly paying very close attention to the international dimension of maintaining space for peaceful purposes. And he will discuss how the new policy could reshape engagement at U.N. COPUOS, the Conference on Disarmament as well as other bilateral and multilateral possibilities.

Bruce MacDonald, at the end, has also been following space and security issues for quite some time and is the senior director of the Nonproliferation and Arms Control Project at the U.S. Institute of Peace. He recently served as a senior director to the U.S. Strategic Posture Review Commission, which the Arms Control Association followed very closely. So he brings insight along a whole range of issues. I have asked Bruce to look at the national security dimensions of the new policy and the prospects for cooperation around those issues.

I will do my time check to see how I did. But I will turn it over now to Marcia. Thank you.

**MARCIA SMITH:** Thank you very much, Jeff, and thanks to the Secure World Foundation for inviting me to be here today. And I did not bring any PowerPoint charts because usually when I have PowerPoints I tend to ramble on and on. And I did give Jeff permission to poke me hard in the elbow if I go beyond my eight minutes.

**MR. ABRAMSON:** Timer's started.

**MS. SMITH:** (Chuckles.) And with all that is in the policy, it is, of course, impossible to cover everything that is in there. Jeff asked me to talk about what is different and what is not different.

And I think that, as was true with the Bush policy, there is a lot that is the same throughout the policy. It covers pretty much the same ground, but it covers it differently. I think

the biggest difference between the Bush policy and the Clinton policy was the tone of it. And I think the biggest difference between the Obama policy and the Bush policy is the tone, the tenor. And, of course, it is perception that is so important, especially when you are dealing with our allies and other potential partners around the world.

So I do think that the Obama policy is trying to reach out to international partners as well as to industry. And the whole tone of the policy is less nationalistic, it's more friendly, it's not confrontational and it does seem to view space as a global commons in which all of us have a stake. All of us around the globe have a responsibility to protect space as an environment because we all benefit from it.

And one thing that I really like about the Obama policy is the introduction to it, which goes into many more paragraphs of explaining why space is important to everyone and the benefits that the world derives from space. There has been a little bit of that in previous policies, but it is maybe a throwaway sentence here or there. But this seems to be a really strong attempt to explain the importance of space and therefore why it is important for there to be a space policy and important for the United States to work together with other nations to preserve space as a usable domain.

I thought I would just read two examples of the Bush policy and the Obama policy to sort of illustrate the differences in the tone. In the Bush policy, we, the United States said that, "Consistent with this principle of rite of passage, the United States will view purposeful interference with its space systems as an infringement on its rights."

In the Obama policy, the same point is put across, but in a more friendly manner. It says, "Purposeful interference with space systems including supporting infrastructure will be considered an infringement of a nation's rights." So it is not just our nation, it is all the nations. Infringing is something that affects a nation's rights, not just United States rights.

And there is a lot of talk about arms control and the Bush policy was viewed as very negative on arms control in space. And I think that is because the whole context of the Bush administration was pretty negative on it. But I was never as negative about the Bush policy as a lot of my friends were.

But I think that when you look what each policy says about arms control agreements, the Bush policy did not rule it out. The Bush policy said, "Proposed arm control agreements or restrictions must not impair the rights of the United States to conduct research, development, testing and operations or other activities in space for U.S. national interests."

And what the Obama policy says is that, "The United States will consider proposals and concepts for arms control measures if they are equitable, effectively verifiable and enhance the national security of the United States and its allies."

So again, I think the policies are still – the Obama policy clearly is more open to arms control than the Bush policy - but both of them open at least a crack in the door to these things.

But it is still looking at these in terms of how they are going to affect U.S. national security, which is appropriate in a national policy.

So again, those are just examples to show how the tone of the two policies is different. And to a large extent, I think that is what is most important about a national space policy. In a sense, they are just words written on paper. What is really important about a policy is what happens after it comes out. What is the strategy to implement the policy? What are the specifics? Are there going to be additional policies on specific topics that emanate from this?

On Monday when the policy was released, some of the White House folks did say that there would be additional specific targeted policies as there had been in previous presidential administrations. So I think that we are going to see some of those coming out.

And I know Dick Buenneke, at least, is here. I don't know who else is here or who might know the answer to that but maybe we can get some – not to put you on the spot, Dick. But we may see some more targeted policies that will help everyone understand where all of this is leading.

But certainly the Obama policy is very focused on international cooperation. And I admit that that is one of my absolutely favorite parts of the space program is international cooperation. So I was very, very pleased to see that. And looking at space as a global commons, especially in terms of space debris and space situational awareness. Again, those are not new topics. They have been in previous presidential space policies. But the emphasis on it in the Obama policy is really important.

And, of course, there is added prominence for commercial space. And I think one of the most interesting aspects of the Obama policy with regard to commercial space is that it leaves out what was in both the Bush and the Clinton policies saying that there would be no direct subsidies for commercial space. So the Obama policy leaves that out. But it also has a finer, more sophisticated explanation of what it considers commercial space to be; about a significant investment by the commercial partner.

And I think that one of the troubles that people are having with commercial space policy is the wording and what is commercial. Everybody keeps searching for what does commercial mean? And I think the Obama policy at least lays out what the White House thinks commercial space is and the appropriate role of the government in facilitating in the emergence of commercial space. You can agree or disagree with it but at least it's there for you to consider.

I admit that personally I am – I know it is not popular these days to be a skeptic of commercial space being more cost-effective than the usual way government does business, but I do think that the commercial forums still have a way to go to prove that they are really commercial and don't simply rely on the government in a different way than the traditional space players do. But the Obama policy certainly is going to give them the opportunity to do that.

So what really changed in between 2006 and 2010? Well, of course, the election of President Obama was the major factor because his approach to dealing with global affairs is very different from President Bush's.

But also as everyone knows, the Chinese anti-satellite test and the Iridium-Cosmos collision really got everybody's attention in terms of space debris and the need for everyone to work together to understand what is in space, where it is and what possible collisions there might be because space is so important to the global economy that everyone really needs to work together to protect it.

And then, of course, the financial collapse and the enormous deficit that not only the United States has, but other countries, is one of those factors that leads countries to want to work together instead of going it alone on a lot of space programs. And that may be one of the reasons that international cooperation is so highlighted in the Obama policy.

So I haven't heard very many negative reactions to the Obama policy so far. Maybe people in the audience will bring them up during the Q&A. I know that Senator Shelby was not impressed by it. And, of course, his focus was on the NASA part of the policy and he thinks the president's policy is wrong. And since it is simply restated here, he thinks this policy is not so great.

I do have a very good friend who feels it is a policy of appeasement rather than leadership, which I thought was an interesting take on it. And so I actually looked through the Clinton, Bush and Obama policies for the word, "leadership," and how quickly it appears. And in the Clinton policy, it smacks you right in the face. I think it is in the third sentence. Leadership – "U.S. will maintain leadership in space." And in the Bush policy, it is not quite in the third sentence, but it is really pretty high up.

It is very interesting in the Obama policy because it actually is there right at the beginning, but it is in a quote by President Obama. It starts off with a quote from President Eisenhower and a quote from President Obama. And in that quote, he talks about maintaining leadership in space.

But I think a lot of people look past those opening quotes and start just reading the text that is underneath them. And if you do that, it takes you a while before you get to leadership. And the first mention of leadership has to do with the commercial sector. And then later on, you finally do get to where it says that maintaining U.S. leadership in space is important. So I don't know if there are people here in the audience – I would love to get into that discussion during the Q&A who think that leadership is not focused on sufficiently in this report in this policy.

But I found it very interesting. I am enthusiastic about the Obama policy. I think it is really well done. And to all of those who worked on it, I think they get five stars.

MR. ABRAMSON: Thank you, Marcia. Ben?

BEN BASELEY-WALKER: Thank you, Jeff. I think I would like to echo a lot of the things that Marcia has said. I know that for many of you who have worked in this room, this was not an easy process to develop this document. And I think what we see in front of us is a very sound, very pragmatic approach.

My personal focus today is going to be more on the international side and also on some of the international security side. And I think the thing that comes through to me on this policy is that this is an incredibly sound approach to looking at the diversity of options for international security and improving the national security climate for the United States. So I think that, that is something certainly to be borne in mind and something to be applauded.

Also, as Marcia said, I think what this policy does and also the tone and the way it has been presented really does demonstrate that there is a very clear understanding of the globalized nature of space. We may wish that this was a realm in which we were operating alone. Unfortunately, the realities of modern day space activities are somewhat different. And I think underlying this policy some of the key concepts really emphasize that.

I think from the international perspective, this is going to open lots of doors. United States diplomacy has been quietly effective, I think, over the last few years. The activities that we have seen of State and various agencies carrying out in Vienna, working on sustainability guidelines, laying the groundwork for that; the work that has been carried on in Geneva, looking at how new ideas can be formulated, even given the stymied nature of the Conference on Disarmament, I think have laid some clear foundations on how this policy can be taken forward and really open a new age of space diplomacy for the United States.

I think in terms of leadership, it is a very interesting word. And I think it doesn't have a defined meaning throughout this policy. I think there are very many different flavors of leadership in the policy. In the international community, I think we haven't seen U.S. leadership in space for a while. I think what this policy does is create the opportunity for that leadership to be rebuilt and regained.

I don't think it is necessarily going to be an easy process but I think that the – as Marcia said, the tone is really important. I think it has got a lot of the international players on the back foot. There is a huge advantage, I think, to push forward with how the U.S. frames this debate and to really direct how the international community takes the next steps forward. So I think that is very exciting.

I think, perhaps, another issue that is really important is staffing. Implementing this policy is really, I think, going to be the most crucial issue. How does this turn into reality? One of the key things that struck me was a very big emphasis on interagency, whole of government, which I think is great.

Working out how that actually happens and bringing in perhaps less traditional agencies that have not been as involved in this basic question, but now are fundamentally involved, as space is such a major part of so many different sectors, is going to be really, really interesting.

Also, as Marcia said, another issue on the tone. Three words that I picked out: deter, defend, defeat. I think these really show a much less bellicose tone than the Bush policy. It is very much about, we are a player in the international community; we do respect the creation of the parameters that exist. However, should there be clear national security threats, that is certainly something that we are not going to stand by and allow ourselves to be challenged on.

Also, I think in that vein, the role of allies and partners is really emphasized. I think we all saw what came out of Schriever V was a clear understanding of the awareness that allies and partners and friends were very crucial. And I think this policy reflects the administration's thinking that this is definitely something to be focused on.

I would like to briefly dwell on the concept of arms control. I don't like the phrase "arms control" for space and I apologize to Jeff as we have it on the front of the podium. (Laughter.)

MR. ABRAMSON: (Off mike.)

MR. BASELEY-WALKER: I did warn you. (Laughter.) I think arms control for space is completely the wrong approach to take. This isn't a numbers game. This isn't the Cold War and nuclear weapons, and you have this many and we have this many, and what does that mean? I think this is a question of actions management.

And I think this policy does a very good job of laying out an approach which really sets how are we going to build parameters for space actors? Where do we fit into those parameters? And how do we see a responsible, effective environment in which national security, economic interests and other diverse U.S. interests really can be best protected? And I think that, that is a really big shift and a really good one.

MR. ABRAMSON: Could you repeat – (inaudible, off mike)?

MR. BASELEY-WALKER: Actions management – behavioral management, perhaps, would be a more appropriate way.

My background is international law, so I thought I would touch – just to kind of wrap up – briefly on some of the international law questions. I think what we have seen throughout the administration's approach, which is very different from the Bush policy, is no more treaties. That was very much the Bush line. Personally I think that is the right way to be going. I think the international community right now is not ready for a big, new space treaty, certainly not one built around security.

Working in the international security sector in space in the diplomatic community and also at the national level, there are very few countries – I would say there are no countries, including Europe, where the understanding of space across departments, across actors is as high as it is in the United States. When you walk in the room, some people really struggle to spell space, let alone have any other understanding of it.

And I think that that is something that is really key. This is a new emerging sector – maybe not so emerging for us, but emerging for everyone else. And working out how we build that common consistency, common understanding, even common lexicon, especially on the international security issues, is going to be really important.

I think what this policy does is lay down some clear options for how soft-law aspects can be developed – guidelines, parameters. Again, coming back to that concept of actions management, I certainly think the whole accusation that has been branded against the United States of wanting to be the world's policeman is not something that comes through in this policy. And personally I think that that is a huge step forward for our approach to international security and to, certainly, diplomatic aspects of international security.

Also, I think that this policy opens the way for new ideas, innovative ideas. And I hope that what we will see from the Washington community, both the civil and the government communities, is that we sit down and we really think about well, how do we move forward? What do we do next?

In space in, for example, Geneva, the question often goes, space, that is an interesting topic; well, I think we should have a multilateral agreement; well, no, no, no, no, we really should have guidelines. The topic is not dealt with effectively. The vehicle is often discussed an awful lot.

I think we need to sit down and go, what are the things that we need to be dealing with in the international sector? What kind of international law, if any, is most appropriate? And how do we lay down the basis for building international consensus and moving the community towards a safer, more secure environment?

As I said, I think implementation is the 500-pound gorilla in the room. I think this is a really good step but I think it is a step on a long path. I think there is going to be a strong role for the State Department and other agencies in doing outreach with our partners, with our allies and also with the people that we are not so thrilled about, and working out how we create an effective regime in which we interact with them because unfortunately, this is an inverted pyramid. We have to deal with people that in many other realms, we don't actually have to normally cross swords with, so to speak.

And again internally, as I said, I think building that interagency relationship is going to be really impressive. But the fact that we have had a policy that came out in the time obviously shows that the agencies have hope, I think.

So overall I think it is a really sound framework that builds national security, advances U.S. interests and shows, I think, to the rest of the world that there is a sound intellectual basis behind the U.S. approach to its future in space and its future engagement with other international partners in the space arena. So thank you. Bruce?

BRUCE MACDONALD: Well, it is great to see so many people turn out on what could be considered a somewhat obscure subject but it is one that is very important. And I, for one, am overall quite pleased with the revised space policy.

And for any media that are present, I know usually you want really hard-hitting tough critiques, but I think there are some important issues, though, that are raised in it that are certainly noteworthy.

The first thing that really impresses me about the policy document is that the strong and repeated emphasis on responsibility and a recognition that what we do and what others do in space has larger ramifications.

I think there is no better example of that than the debris issue, which has both – it has national security implications, it has economic implications, broad-reaching, that if a country is just looking at its own private interests, you would get sort of one answer to a problem. But recognizing that space is a kind of global commons, you come up with other different approaches.

Speaking about the national security dimensions of the report, let me first lead off by saying there is a classified version of this document that I haven't seen – and it's just as well that I haven't because I probably would feel more restricted in what I could say than by not having seen it. And so one needs to keep that in mind.

But even on the unclassified dimensions, one of the things that I was most pleased by and I think is something new is that the document clearly, I think, recognized – or I would like to think it drew upon – the Strategic Posture Review Commission's recommendation or observations about space where it said that the U.S. policy should – or the U.S. should develop and pursue options for U.S. interest and stability in outer space, including the possibility of negotiated measures. Now, that was not a group of left-wing people. That was six Republicans and six Democrats headed by former Defense Secretaries Perry and Schlesinger. If you haven't seen this, it is a great document to read and almost a primer in U.S. strategic posture policy.

So I was very pleased to see that emphasis. And that is frankly something that has been missing in the space policy documents of the past of both the Republican and Democrats. And that provides – again, it is consistent with this underlying theme of broader responsibility that I think permeates the policy. And it is something that is strikingly and pleasantly new.

One carryover from the Bush policy that was new in the Bush policy that I was glad to see that was carried over is a recognition that space now, because of the way our military is so heavily dependent upon space that, indeed, space and the capabilities that it provides is one of our vital national interests. That was new in the Bush policy and I thought it was a good addition. And that phraseology has been maintained in the current policy. That, I think, is very important.

The word “deterrence” is not new. That has appeared before and it appears again here. But one thing the policy is silent on right now, and really understandably so, is it is silent on the

question of how you define space deterrence and how you accomplish or achieve it. Really, those are tasks that are best left for space strategy or a posture review or things like that, which are ongoing and will be coming down the road. And so I look forward eagerly to seeing how those vitally important issues are approached.

The whole idea of deterrence as it speaks in there is one way to keep peace in space. And I want to just – the reason why that is so important is, again, coming back to some basics that if you think about what it is that space provides our military forces, it is really – it is the information. It is either a medium through which information is passed or information through sensors and so forth is generated from space.

Space is valuable not so much because of the assets that we have in space, but rather the information that they produce. And if we suddenly lost that, as one colleague of mine, Mike Hamel, who used to head the Space and Missile Center in the Air Force, said, that if we lost that, we would go suddenly from being a 21<sup>st</sup>-century fighting force to being an industrial-age fighting force. Still very powerful and capable, but we would be a hamstrung to some extent by the loss of that information, which powers – you can think of – it powers a whole lot of our military capability. It would be almost like being suddenly cut off from gasoline. We would be severely hampered.

And those who might choose to oppose this in certain areas or the possibility of getting into conflicts – one scenario sometimes spoken of is the conflict in the Taiwan Strait – it would make sense that an opponent might want to try to cut off that lifeline. Just as in World War II, it was very important to cut off Germany and Japan's access to petroleum oil and lubricants. So I was interested to see that the deterrence language maintained as well.

Another big thing is that – and here, I might respectfully disagree with Marcia a little bit is I see arms control rehabilitated – space arms control rehabilitated here. And I think rightly so. If you look at – the phraseology used is almost word-for-word from earlier space policies.

And while it is true that the Bush administration did not completely shut the door on it, the language – anybody who sat through a number of speeches from the Bush administration, it is pretty clear what their feeling was. And their earlier policy said they would “oppose the development of new legal regimes or other restrictions that seek to prohibit or limit U.S. access or use of space,” which was certainly a de facto elimination of arms control.

This does not mean, of course, that we would willy-nilly just go in and sign any arms control agreement. It has to be – it sets the usual criteria that it has to be in the United States interest, it has to be equitable and it has to be effectively verifiable. And those are reasonable requirements for any form of space arms control.

But I also take the point that we have a – those of us who work in space say well, the administration ought to do more on space. But they have got such a huge agenda of things to do that, as much as they might want to, there is only so much that can be done. And I am one who thinks that norms and rules of the road and sorts of things – if we can't get some kind of a formal agreement, helping the process to begin to get there through more informal agreements – I would

much rather do that than hold out for something a lot better. I would not want the – you know the old phrase, to let the best be the enemy of the good.

That said, I certainly hope that we can move forward in space arms control, although I doubt that the Conference on Disarmament will be the proper venue to do that. When you look at the membership and all, to me, the CD is the place you go once you have worked it out somewhere else. And then you take it – all the parties involved take it to the CD for sort of formal approval.

I thought it was interesting to see in the policy where it – the whole question of national security – it was deemphasized but it wasn't degraded. Instead of being the premier headline thing, it was deeper in it. And I think that, that is the right move to make, again, because the Bush policy, I thought, it was too chest-thumping.

And unfortunately, especially given the opposition in the Bush administration to space arms control, it allowed the Chinese and the Russians both to credibly mischaracterize the U.S. position as being that we are opposed to peace in space. Of course, nothing could be further from the truth. So I like the tone that the current policy conveys.

Just a couple of points to finish up on. And that is that, again, this question of how to deter, how do we get deterrence? There are a lot of uneasy, unanswered questions. I would not expect the policy document to do that. But these are questions that ought to be asked. Do we need to have any offensive capability in space? That is a completely valid question and there are good arguments on both sides of the question.

To some extent, one could say that as long as there is ballistic missile defense, anybody who has ballistic missile defense will have a de facto form of anti-satellite capability, as the United States showed in the downing of USA-193. But these are tough questions to answer.

But overall, I think it is a very strong step in the right direction. And we will need to pursue these questions of, how do you achieve space deterrence? And most importantly, how do you maintain stability? Because a stable space environment, even in the midst of conflict, would allow the United States to continue to reap all the benefits that it gets from space.

One of the things that always troubled me about the Bush policy is that it didn't make sense to claim that something was in your vital national interest and then to talk about well, yes, if you felt it necessary, you would go ahead and use space weapons because that would only invite attacks on our space assets – again, which we considered vital to our national interest.

So we will have question-and-answer time. Like I said before, I am overall quite pleased with it. And I look forward to the discussion to come. Thank you.

MR. ABRAMSON: Thank you, Bruce. Well, this is a first for me in that all three panelists kept to their time or under it, which I can't ever remember happening. So thank you. And I appreciate the comments also. I mean, I think we had some great analysis in this and some areas of disagreement, which I think is also fine.

So I will take, I think, questions at this point. We have microphones. I think I will take two to start with and let the panel respond to that and then we will take some more after that. So please raise your hand and a microphone will come your way. Yes, sir? Please just state who you are.

Q: Gerry Epstein at the American Association for the Advancement of Science. Bruce, maybe the one that stuck in my mind – I'll throw this at you. Pointing out the policy requiring that any arms control agreement entered into be effectively verifiable, and you saying yes, but there is also rules of the road and norms that might be important, too, are those incompatible? How can you verify a rule of the road in that sense or would that be a problem?

MR. ABRAMSON: Is there another? A second we can take at this point? Oh, boy. Well, Bruce, why don't you take that one on and we will round up some more?

MR. MACDONALD: (Inaudible, off mike) – really inflammatory and then I am sure maybe we will get some more. Yeah, there we go. Good.

Gerry, good question to ask, and thanks for that. One of the reasons why rules of the road and codes of conduct sorts of things are separate from agreements – from more formalized agreements – is that the – by definition, if there is not a law, you know, there are no lawbreakers. And I think what is intended there is it is more of what is considered usual and customary and to rely on peer pressure for enforcement. So I don't see it as contradictory because rules of the road, by definition, would not be formalized treaties.

Nonetheless, you want, as in the case of debris, when China did its ASAT test in '07, it did not expect – from what I understand – all the condemnation that it received. It broke no rules in doing that. Just like in 1985 when we smashed one of our satellites, the Solwind, we didn't break any laws either.

But it was interesting that when China did their midcourse ballistic missile intercept this past January, supposedly anyway, for a missile defense test, they went to great lengths to tell people about it and it was done in an altitude that wouldn't produce any long-lasting debris and so forth. So I view that as kind of a tacit admission that China realized they went over the line. But again, in any discussion about rules of the road or codes of conduct, that is a drawback that there is no – it doesn't have the force of law. But still, I think they can be very useful.

MR. ABRAMSON: Ben or Marcia, if you want to jump in.

MR. BASELEY-WALKER: I would. On the Chinese issue, I think that is very interesting, certainly, when you are talking about rules of the road and kind of customary practice. I think what happened with the Chinese is they learnt how to do it after USA-193. The ASAT test in 2007 was – this was probably not how one does this. USA-193, if you are going to do this for whatever reason, which we will put aside, this is perhaps a more effective PR strategy. And I think that is what we have seen.

And I think what rules of the road kind of build on and the concepts that are behind them is that you start building up these parameters of okay, this is just how we carry things out. And I think there is a lot of potential for that in space.

Additionally, kind of bringing this back to the policy, I think what this policy does effectively is open the door to some of those informal agreements and parameterizations while also not softening a stance on what will happen if there is a threat to national security.

And I think how rules of the road have often been characterized before – and I would actually disagree with Bruce’s comment that it would be much better to have a formal agreement such as a treaty. I am not necessarily sure that in the long term of securing space and building U.S. national interest that a treaty would be in the best interest of the United States because I don’t think you have currently the capacity in many of the other states that are dealing in the space arena to be able to effectively interpret, domesticate and engage in a far-reaching treaty in the international community.

So I actually think there is a capacity question that the rules of the road and norms of behavior would actually fill that gap and potentially build a bridge before the community is necessarily ready.

MR. ABRAMSON: Up here in front.

Q: Colin Clark with DOD Buzz. How does this policy affect the prospects for militarization or weaponization of space if you are sitting in the Air Force and similar institutions? Do you now bow your head and say, I understand, we will not do this, or what?

MR. ABRAMSON: Also if there is a second question, I will take that, too, although I do like that question. All right. Anybody want to jump in on that?

MR. MACDONALD: I will start out. It is important to distinguish between weaponization of space and weaponization that would affect assets in space. In some ways, people are talking past one another.

The problem with weapons in space is that it is like ducks in a shooting gallery. They go around and around and you know where they are going to be. And if you want to have any kind of offensive counterspace capability, putting them in space would be a risky and very unstable place to put them in because in any kind of a crisis, at some point, the other guy might want to go first and take out those assets. And again, you can’t exactly build a fortress around them.

Ground-based offensive capability, on the other hand, is easier to protect and easier to withstand another attack. So I don’t see – I don’t think that weaponization of space is affected by it because weaponization of space just tactically and strategically has quite a number of major drawbacks that would need to be overcome before they would be addressed.

One thing that is important to notice in the space policy even though it is buried deeper in, some of the language has been quite similar from administration to administration where you

talk about maintaining capabilities to execute the space support, force enhancement, space control and force application missions.

One difference between the Bush administration and the Obama administration is just the Bush administration tended to headline that. And this got buried on page 14, the last page of the document, but it is still there.

MR. ABRAMSON: Marcia – I am going to Marcia – sorry.

MS. SMITH: Sorry, I would just like to add, there is a very intriguing section of the policy that I am still – I have read it several times and have not quite comprehended what they are trying to get across, but it is called “assurance and resilience of mission-essential functions.”

And it seems to me that the language in there really does keep the door pretty much open for anything that might have been done under the Bush policy. And it also does say under the principles that we are going to deter, defend and, if necessary, defeat people who might want to attack us.

So I think the door is still open. I think it is simply de-emphasized and what’s being emphasized is that there are other avenues that we could take before we would ever get to the point of actually attacking someone’s satellites. But it does give us the room to do that if we feel it is necessary.

MS. ABRAMSON: Thanks, Marcia. Ben?

MR. BASELEY-WALKER: I would dispute the premise of your question. I think –

Q: There is no premise. I am just trying to get an idea of how it will affect the debate.

MR. BASELEY-WALKER: No, no, but I mean the premise of your question, I think, of the two words you used: militarization and weaponization. I think we can all agree that the militarization boat has well and truly sailed. On the weaponization boat, my advice, if I was sitting in the DoD, would be, what this policy says is forget about the word that you just used; let’s not talk about weaponization.

I think what this policy says is that, again, coming back to that concept of actions management and also a more holistic approach. If, for example, the United States blows up a Chinese satellite, what would I do if I were sitting in Beijing? Would I go and launch a missile at an American satellite? No, I would crash the dollar. (Laughter.)

So I think now looking at space as a more integrated part of international security and international diplomacy is key. So we don’t necessarily need to look at it as this fenced-in arena that is pitched between A and B. So I think – I really like the fact that, you know, what could be a space weapon? Well, a satellite with maneuvering-capability-targeting aside. The AEGIS missile – I mean, how are we going to start regulating that?

There is so much dual-use aspect to so much of the weaponization that is going on in space. I think we can all agree that Death Stars are a bad idea, but apart from that, I think we have many, many other aspects in this. So again, I think what this policy says is, don't ask that question; let's rephrase the question and ask it in a different way.

MR. ABRAMSON: Other questions out there? Greg?

Q: I'm Greg Thielmann, Arms Control Association. I'm scratching my head a bit on the idea of equitable arms control. At first glance, it seems like, obvious, of course. But in the context of space arms control, I am not sure what it means. And I would think that, given U.S. advantage at this point, that would not be the first major emphasis in terms of equitability of impact, if that is what the implication is. So maybe one of you can kind of illuminate that in terms of what was really meant by equitability.

MR. MACDONALD: I will jump in a little bit on that. I scratched my head over that one a little bit, myself, until I went back and checked and found that that was the term that was used in the Clinton space policy. When you think about it a little more, I take your point.

I am reminded of – was it a Supreme Court justice who said that the law with majestic impartiality prevents both the rich and the poor from sleeping under railroad bridges? The United States, in one sense, could have more to lose. But on the other hand, we have more to gain as well.

And again, I think if you look at it not so much like in a bean-counting exercise that you – and that is what a lot of people think of when they think about arms control. If though, for example, you had a ban on the testing of kinetic energy ASAT, that is not a numbers thing so much as it is a restraint on something that would be destabilizing both – for a variety of reasons, not the least of which is just all the debris that would be created.

So I think as much as anything, it might be a carryover. You are a veteran bureaucrat – former bureaucrat, yourself, as I am, and a number of others in the room – and you know the language that has been agreed in the past tends to have a high precedent value. And so when I read “equitable,” I think of that as being that it should not unfairly disadvantage the United States is what I take from it. But it is a slightly puzzling word in there.

MR. BASELEY-WALKER: Perhaps just to take this – to flip it on its head and to tie another phrase in the policy, which is this whole idea of instead of saying the United States, but saying the freedom – I think it is “the freedom of action of a nation” – I think that is really key.

When you take this into the international context, there is a whole set of emerging space powers, countries that look to being space powers who are very interested in how this is going to play out from an equity perspective. They see their right to develop space activities, in many ways, to experiment and make some of the mistakes that we have all learnt weren't such a good idea – for example, anti-satellite weapons blowing up satellites. We have learnt that that wasn't such a hot idea. Maybe Botswana hasn't quite got that yet. And I think that that's really key.

So understanding equitability from both the U.S. national security perspective, but also for all of these emerging actors I think is a very difficult balance to strike. And I think something like a ban on kinetic ASATs is one of the few examples in space where you really can say okay, this is good for the community at large and has an equal effect on the vast majority of the players in the game.

MR. ABRAMSON: Sam and Victoria, let's take two.

Q: I have a question about the principles – actually two questions.

MR. ABRAMSON: Identify yourself, please.

Q: I'm Sam Black from the Stimson Center.

MR. ABRAMSON: Thank you.

Q: The principle that Marcia mentioned where it talks about deter, defend and defeat efforts to attack, the first sentence says that, "the United States will employ a variety of measures to help assure the use of space for all responsible parties." And I'm wondering how we assure defend, deter, defeat the use of space for everyone.

And the second question is in the principle above that, it says, "the United States considers the space systems of all nations to have the rites of passage through and conduct of operations in space without interference." And I'm wondering what this says about the U.S. willingness to use jamming capabilities, for example.

MR. ABRAMSON: Victoria?

MS. SAMSON: Victoria Samson. As I mentioned before, I was intrigued by the use of international outreach in this national space policy. And I would be curious to get the panel's take on how they envision this actually happening not just in terms of where it will take place. I think we have all agreed the CD is having its difficulties. COPUOS is having some events. But do you see it happening solely in international fora or will it be with other space actors who are of interest?

And besides where it will take place, who will it take place with? Will it just be traditional United States allies? Will it be other space actors that could affect U.S. assets in space? A country like Iran has a very active space program, but clearly, one would be loath calling them an ally these days. So I would be curious to hear your take on, who do we reach out to and how do we go about doing it? Thanks.

MR. ABRAMSON: Any of the panel want to start on those sets of questions?

MS. SMITH: Well, I am not quite sure what Sam was trying to get at. But I think that, as I was saying earlier, I think that the language in the Obama policy leaves the door open to a variety of different mechanisms. And it does not preclude an anti-satellite attack particularly, but

it makes it more likely that the United States would look at other mechanisms to deal with that kind of a situation before they would go so far as to actually try to defeat someone who was trying to interfere with our satellites.

And I think the language in here indicates that, yes, purposeful interference of space systems will be considered an infringement of a nation's rights. I am not sure that that would preclude the United States from interfering with someone else's satellites if we thought that satellite was infringing on our rights. I don't see that language in here. So I think it just – it opens the door to a variety of mechanisms to dealing with these eventualities.

MR. BASELEY-WALKER: I would add on to what Marcia said is just that I think it is very interesting that in the last principle we very clearly state that Article 51 of the U.N. Charter very clearly applies. So I think the shift in language here is it is self-defense, it is deter, it is defend; it is always on the premise that there is some previous action. So I would say that, as Marcia said, intentional interference would be looked on negatively, but also could arguably be a cause for invoking Article 51 and the right for self-defense.

Victoria, I wasn't quite sure whether you were referring to general arms control issues or just general international cooperation.

MS. SAMSON: (Off mike.)

MR. BASELEY-WALKER: International outreach. I think that what this policy demonstrates is that there are very many ways to do it. There is going to be multilateral engagement in the diplomatic fora – probably outside the diplomatic fora, but in a diplomatic environment.

I also think that there is going to be a lot of potentially regional engagement. We are seeing a rise in regional alliances in space in Asia – APSCO, APRSAF in the civil sector, but also some more other interesting alliances and more interest in certain states, such as Australia, in how space in the region is kind of playing out.

From a bilateral perspective, personally, I am a huge believer that using space as a soft-power tool is a huge possibility for the United States: Using it as part of an aid package, supporting countries to build safe, responsible, effective space programs that aid development, telemedicine, tele-health, all those kinds of things is really crucial. So I think that is one way that we could see it happening.

In addition, I think in our bilateral cooperation relationships, we need to be more consistent. The Brazilians really hate us because we did a program with them, they started working with the Chinese and they lost a ton of money because they put a lot of money into the cooperation with the United States and now they are pissed.

I think building clear, established parameters on how we deal with our international partners when we enter into bilateral agreements and into bilateral international cooperation on specific programs is really key. And what I think this policy does is lay down some clear

guidelines about what direction and how we are going to do this. And I hope that that continues through in the implementation.

MR. MACDONALD: Let me just add one point there. As we were talking earlier in response to Sam's question, now, really, there is a different ethnic in peacetime versus in conflict when you have been attacked.

But this, I think – I want to reemphasize a point I made earlier and that is because we get more benefit out of space from a purely military perspective – not to mention economic, but from purely military perspective, we get more benefit from space than anybody else. I find it hard to see circumstances under which we would want to initiate space conflict, which, as I said, would just very likely bring attacks back against our systems.

Even during conflict, we ought to want there not to be conflict in space so that we can keep on taking advantage of seeing the troop deployments and the massive amounts of communications that would be going on. And for those reasons, of course, somebody like China, were we to get a conflict over Taiwan Strait, would be sorely tempted to consider the possibility of initiating a space conflict. And the trick for us is figuring out a way to be able to deter.

And deterrence doesn't just have to be with a counterspace capability. It could be with other means as well. Figuring out how to do that, and in a credible way and enunciating that doctrine of that, that is going to be the tricky thing to handle, I think, in the years ahead.

MS. SMITH: And if I could just add one thing about Victoria's question. I think that each country is going to have to be dealt with individually. There is going to have to be targeted approaches depending on what the country is. Everybody wants to know are we going to be reaching out more to China. And I think there are a lot of people in the space community see advantages to reaching out to China.

But then you get the kind of lash-back that you got from Congressman Wolf at the markup on Tuesday – at the Commerce, Justice and Science Appropriations markup where he made it absolutely clear that he does not think that the United States should be cooperating with China at all on space. And Congressman Culberson actually introduced an amendment that would have made it so that we could not cooperate with China in space unless Congress first gave it approval.

So there certainly are – there is a group of people out there who think that cooperating with China still is not a good idea. And I think that, that debate still has not reached its end. It obviously has not reached its end. And so whether it is China or Iran or whoever it is, I think it is going to be on a case-by-case basis.

MR. ABRAMSON: Back to Ben.

MR. BASELEY-WALKER: I would just like to pick up on Bruce's analogy of the Taiwan Straits. I am not sure I quite agree that the Taiwan Straits would play out in that kind of

way. I think what we are seeing with some of the larger, emerging space players is the same kind of awareness that we are seeing in this policy, which is that space is an integral part of many other aspects of our business as opposed to just the military security realm. It is economics. It is communications. It is, it is, it is.

So whether the Chinese are prepared to cut their own nose off to spite the face, I think is a conversation that we now can effectively enter into as the levels of engagement in space is increasing. And I think that that's really important to realize.

In addition, following onto Victoria's question, another part of international outreach is convincing everybody in the international community that space is really important to them – not to us, but to them – so that it really isn't in your best interest to initiate space conflict; it really isn't in your best interest to engage in a potential situation that could be deleterious to your own engagement in space or utilization of space resources and services.

MR. ABRAMSON: I am going to take moderator's prerogative to make a closing comment. I think we had a great panel discussion on both of those questions. I think, Sam, you have pointed out some of the ambiguities that are within the policy that I think, moving forward, might be in the U.S. interests to clarify, especially if it is a less aggressive approach and expectations that other countries would follow that as a norm.

On Victoria's question, I just would throw in – and I shouldn't because I am not an expert on this – but I have been really impressed in terms of other actors that are going to push for international cooperation on what the commercial sector is doing. I mean, really sort of seeing their cooperation around space situational awareness.

I think you will continue to see them pushing for more transparency in what government is doing. It is not a state-to-state type work, but as this is increasingly not just a military use of space, I think we will see other actors outside of what we've normally thought of as being involved. And that gets way out of my arms control area but one of the observations I have.

I want to ask you to thank the panelists for their great comments and insights and for putting this together in such a short time. Thank you very much. (Applause.) Thank you all for coming.

(END)