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## China's Anti-Satellite Weapons and American National Security

*The Honorable Jon Kyl*

On January 11, the Chinese destroyed one of their aging weather satellites with a missile-launched interceptor. That's the first problem. The second problem, and the one that I'll focus on today, is what we should do about it.

I'll start by describing how critical satellites are to the United States and how adversaries can threaten our access to them. I'll explain why arms control, the preferred response of many to these threats, is ineffective, unenforceable, and undesirable. And I'll propose that we commit ourselves to real space security and develop the means to assure our freedom of action in space.

First, security in space is a vital national interest. The loss of access to space would threaten the very stability of our nation. Consider:

Satellites enable our ATMs and our financial markets; they help first responders and form the backbone of our next-generation air traffic control system; they allow us to gather intelligence on foreign developments and to influence them through satellite radio and TV transmissions.

More important, satellites underpin our military superiority. Our troops rely on satellites for reconnaissance, communications, navigation, and other functions. Almost every new military platform in development today is more satellite-dependent than the system it is replacing. None of our military operations—conventional, strategic, or missile defense—can function without space components.

### Talking Points

- America's space platforms are the strategic center of its defense architecture, and China wants them eliminated. China's new anti-satellite weapons programs are targeted exclusively on the United States. It is a capability that constitutes unmistakable evidence of intent.
- China's push for international agreements on the "prevention of an arms race in space" pursues the same intent by different means.
- Any conceivable international agreement on military uses of space is unverifiable and unenforceable. Like the earlier Nuclear Non-Proliferation Treaty, it is a perfect example of an agreement that encourages responsible nations into complacency while ruthless actors violate it. A space weapons ban has the same effect.
- China's public protestations of peaceful intentions are belied by its military doctrine and writings, which advocate covert anti-satellite units.

This paper, in its entirety, can be found at:  
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Second, unfortunately, the threat to our space security is real and growing. The threat can take many forms. A report by the U.S. Space Commission staff identifies at least 11 distinct categories of anti-satellite attack: from ground segment attack or sabotage to kinetic kill to nuclear ASATs, particle beam weapons, and electronic attack.<sup>1</sup>

The space threat posed by China is multifaceted. The “painting” in September of a U.S. satellite by a ground-based laser shows that the Chinese program includes a broad range of capabilities, from kinetic kill to directed energy.<sup>2</sup> The January 11 test also shows China’s ability to hit targets in Low-Earth Orbit (LEO), where most American reconnaissance assets are deployed. But reports suggest that the Chinese also seek the ability to attack satellites in Medium- and High-Earth Orbit, such as GPS.<sup>3</sup>

Other nations also may have ASAT capabilities. We recall that the Soviet Union had an advanced ASAT program during the Cold War, which presumably still exists in some form. News reports suggest that Iran may soon launch a satellite, meaning that a crude ASAT capability could be within their reach shortly. Any nation with missile-launched nuclear weapons, including Pakistan, India, and potentially North Korea, could destroy satellites by setting off a High Electromagnetic Pulse (HEMP).

### Troubling Lapses in Understanding

It is especially troubling that key policymakers seem oblivious to the nature and the urgency of this threat. My colleague Joe Biden, chairman of the Foreign Relations Committee, said of the Chinese test: “I don’t think we should be overly worried about this at this point. We have ways to deal with that ability.”<sup>4</sup> As an eight-year member of the Senate Intelligence Committee, I can tell you that this is not a responsible or an accurate statement. Moreover, capabilities that might help defend against missile-launched ASATs, such as boost-phase missile

### SIX THINGS THAT NEED TO BE DONE

1. Next year’s defense bill should ensure that the Department of Defense is organized and equipped to meet the threat.
2. Congress should hold hearings on shared or stolen U.S. technology used in the Chinese ASAT program and to tighten U.S. technology export controls.
3. Ensure U.S. access to “operationally responsive space,” defined as “the ability to launch—and activate quickly—militarily useful satellites.”
4. The Missile Defense Agency should build a “Space-Based Test Bed” to include both kinetic and directed energy components.
5. The Defense Department and Congress should ensure that the budget for Space Control is adequate to meet the threat despite the tight budget environment, and the DOD should send Congress a budget that reflects the requirements for meeting the threat in space.
6. Conservatives must once again make space security a priority.

defense based in space, are always opposed vigorously by Senator Biden and a majority of his Democratic colleagues.

Perhaps even more troubling, our own State Department seems to be missing the point. A department spokesperson, Tom Casey, said last Friday: “We know the Chinese conducted this test. We certainly want to hear from them in a more detailed way exactly what their intentions are.... We don’t want to see a situation where there is any militarization of space.”<sup>5</sup> I think it’s worth parsing this state-

1. Tom Wilson, *Threats to United States Space Capabilities*, prepared for the Commission to Assess United States National Security Space Management and Organization, at [www.fas.org/spp/military/commission/report.htm](http://www.fas.org/spp/military/commission/report.htm).
2. “China Attempted to Blind U.S. Satellites with Laser,” *Defense News*, September 25, 2006.
3. Michael P. Pillsbury, “An Assessment of China’s Anti-Satellite and Space Warfare Programs, Policies, and Doctrines,” report prepared for the U.S.–China Economic and Security Review Commission, January 19, 2007.
4. “Biden Warns Against an Arms Race in Space,” *Boston Globe*, January 22, 2007.
5. “U.S. Presses China on Anti-Satellite Test,” *Los Angeles Times*, January 20, 2007.

ment in some depth to show the level of confusion in our government.

In the first place, why do we need to hear from the Chinese exactly what their intentions are? What intention could possibly be behind the test save for the capability to blow up satellites in space? Would the State Department believe any alternative explanation if it were given to it? Why did the State Department spokesman say our goal was to avoid any militarization of space? If a missile like that flying in space is militarization of space, there are at least nine or 10 other nations that already have capability now.

And of course, as we know, space is thoroughly militarized and only will become more so in the future. In fact, it has been militarized, one can even say weaponized, since the first V-2 flew through space on its way to targets in the United Kingdom in World War II.

### Arms Control Fallacies

To make their case that we must prevent weaponization of space, arms controllers insist on making a number of distinctions that simply fall apart under close scrutiny.

First, they distinguish between weapons based in space—so-called satellite weapons—and weapons that transit through space, such as ICBMs. ICBMs can take less than two minutes to exit the atmosphere and spend most of their flight time in space. Why doesn't their flight through space result in militarizing space?

They distinguish between weapons guided by satellites and those released from satellites. In war, satellites can identify a target through overhead imagery, process communications about that target between military decision makers, and then guide a bomb precisely enough to destroy the target with one shot. Would it really be that big a step if the projectile itself were also launched from space? There is no practical difference, and I'd venture to say that the person on the receiving end wouldn't see a distinction either.

They distinguish between offensive and defensive ASAT technology. Programs like Space Situational

Awareness and so-called Defensive Counterspace often receive less criticism because they are not "weaponizing" space, but situational awareness of what is in space is crucial both for avoiding attacks and for launching them. Likewise, other than simply "hardening" a satellite, other "defensive" measures can also provide some offensive ASAT capability: for example, giving it an electronic jamming capability, or making it more mobile, or giving it a small projectile gun that can destroy an enemy's satellite that gets too close.

The distinctions made by the opponents of space security are simply untenable. We live in a world where space is already militarized, and it is impossible to prevent weapons from access to space.

Third, arms control is not the path to security or stability. Arms control advocates naturally use the Chinese test to advance their agenda. Just to cite one, my colleague, Ed Markey of Massachusetts, said: "American satellites are the soft underbelly of our national security, and it is urgent that President Bush move to guarantee their protection by initiating an international agreement to ban the development, testing, and deployment of space weapons and anti-satellite systems."<sup>6</sup>

Advocates of such arms control put far too much stock in China's public statements that it has nothing but peaceful intentions and wants to avoid an arms race in space. A review of Chinese military doctrine and numerous writings makes it clear: China does not believe that space can, or should, be free of military capabilities. China believes that it must develop space weapons for its own security, specifically in preparation for a possible conflict with the U.S. over Taiwan.

China is also concerned that its nuclear deterrent is at risk of being degraded by improving U.S. missile defense capabilities. By having the ability to destroy the satellites that tie our ballistic missile defense system together, China hopes to seriously degrade its effectiveness as a deterrent.

But even if arms control advocates are correct that the Chinese earnestly want to negotiate an arms control treaty for space, we should be highly skept-

6. Press release, "Markey Denounces Chinese Missile Test, Calls on Bush Admin. to Strike Agreement to Ban Future Tests," January 18, 2007, at <http://markey.house.gov/>.

tical of an arms control–first approach. As I already noted, space has long been militarized. Nations will neither un-invent capabilities nor be able to stop future technology.

Attempts to “reboot the genie” through treaties have a dismal history. The 1899 Hague Convention, for example, tried to keep the air free from weapons by banning the “launching of projectiles and explosives from balloons.”<sup>7</sup> That effort failed because the strategic advantages of operating in the air overwhelmed the moral arguments against doing so.

In 1928, the world even tried to ban war altogether under the Kellogg–Briand Pact, as you might recall. The pact’s signatories included every major belligerent of the Second World War, which began 11 years later.

Even the Nuclear Non-Proliferation Treaty, or NPT, has proven incapable of preventing nations such as Iraq, Iran, and North Korea of walking up to, and over, the nuclear brink. If anything, the treaty has encouraged responsible nations to sit by complacently while their more ambitious or ruthless neighbors go nuclear. A space weapons ban would likely have the same effect.

Another important argument here is that arms control would itself be dangerous. During negotiations, advocates would argue that we can’t take any steps to defend ourselves. All the while, China will continue to develop its programs. This is a paradox that I will discuss in more detail later.

Once signed, the treaty could lull us into a false sense of security. Like so many other similar treaties, you don’t need it for the countries who would comply, and it will be of no use for those who will cheat.

Perhaps most important, a ban on anti-satellite weapons would be unverifiable. There has been quite a bit of work done on this. The recent Chinese test illustrates the point. Are we going to propose a ban on medium-range ballistic missiles like the one that carried China’s interceptor? Will we require comprehensive inspection of every payload prior to

launch? These are clearly nonstarters. Even intrusive, comprehensive inspections of payloads would fail to address concerns over ground-based lasers, signal jammers, and other anti-satellite capabilities that never have to be launched at all.

The Chinese are interesting in their discussion of their own program. They continually emphasize the deception that would continue to be a problem. To quote just one of them, Colonel Jia Junming, in the 2005 book *On Space Operations*, urges: “[Our future space weapons program] should be low profile and intense internally but relaxed in external appearance to maintain our good international image and position.”<sup>8</sup>

Finally, assuaging Chinese insecurities would require putting either our missile defenses or our conventional military superiority on the table for negotiation. Some might consider this an acceptable price to pay, but I would argue it is far too much to give for an agreement of inherently dubious value.

### Importance of Space Capabilities

Verification problems aside, military capabilities in space are likely to prove vital to our security in the future, and I do not believe that we should consider forfeiting our right to build them. Why?

Space assets are important, first of all, to help preserve peace in space. Few object when the United States Navy deploys hundreds of heavily armed warships in every one of the world’s oceans. No one accuses us of contributing to the “weaponization of the sea” because they know that the presence of our weapons ensures free transit for all who pursue their peaceful interests. U.S. systems based in space could similarly patrol the “commons” for the good of all.

We should also expect that space weapons will play a role in future combat operations against modern militaries. Speaking back in 2002, former Undersecretary of the Air Force Peter Teets asked:

What will we do five years from now when American lives are put at risk because an

7. Laws of War: Prohibiting Launching of Projectiles and Explosives from Balloons (Hague, IV), July 29, 1899, at [www.yale.edu/lawweb/avalon/lawofwar/hague994.htm](http://www.yale.edu/lawweb/avalon/lawofwar/hague994.htm).

8. Cited in Pillsbury, “An Assessment of China’s Anti-Satellite and Space Warfare Programs, Policies, and Doctrines.”

adversary uses space-borne imagery collectors, commercial or homegrown, to identify and target American forces? What will we do ten years from now when American lives are put at risk because an adversary chooses to leverage the global positioning system or perhaps the Galileo constellation to attack American forces with precision?”<sup>9</sup>

The bottom line is this: We must not jeopardize our warfighters in the name of preserving an indefensible distinction between space and non-space weapons. If targeting an adversary’s satellites allows our military to achieve victory more quickly, or at lower cost in blood, such attacks must be considered. The Chinese seem to understand this point much better than we do.

So my fourth point, instead of talking about illusory arms control arrangements, is that we need to get serious about space security. The recently revised National Space Policy is a step in the right direction.

Every Administration since the Eisenhower Administration has had a national space policy to establish overarching national policy that governs the conduct of U.S. space activities. The Bush Administration national space policy was released in October as a Presidential Decision Directive replacing the last version, issued by Bill Clinton in 1996.

Consistent with previous iterations, the current policy reaffirms space as a vital national interest and opposes “development of new legal regimes or other restrictions that seek to prohibit or limit U.S. access to or use of space.”<sup>10</sup> It also restates U.S. commitment to “[d]evelop capabilities, plans, and options to ensure freedom of action in space, and, if directed, deny such freedom of action to adversaries.” This statement means we reserve the right to develop offensive and defensive ASAT capabilities, as well as robust missile defenses.

We also have an Air Force Counterspace Operations Doctrine, which properly recognizes the

imperative to control the “ultimate high ground” by building three capability areas:

- **Space Situational Awareness (SSA)** forms the foundation for all space activities by “characterizing, as completely as possible, the space capabilities operating within the terrestrial and space environments.”<sup>11</sup> Using sensors and telescopes based both on the ground and in space, SSA allows warfighters to know where the adversary’s space assets are and what they are doing.
- **Defensive Counterspace** is defined as “protecting, preserving, recovering, and reconstituting friendly space-related capabilities before, during, and after an adversary attack.” This could include everything from hardening satellites against laser attacks to launching an air strike against an enemy’s GPS jamming facility to quickly launching replacements that are destroyed initially.
- **Offensive Counterspace** denies the adversary the use of space assets through reversible or permanent means. It encompasses everything from jamming or blinding to destroying enemy satellites.

### Some Troubling Signs

So we do not lack sensible policy guidance. We have that. The question is whether we have the will to implement it. Some recent examples point to a flagging enthusiasm for space security.

Look at the Administration reaction to the Chinese ASAT test. Since the test was reported, there has been no public statement by the President or any Cabinet officials and no mention during the State of the Union. No congressional hearings have yet been scheduled. No indication has come out of the Pentagon that the space budget is being in any way revisited. The State Department has provided no specific information about what our diplomats are, or are not, saying to the Chinese in response to this provocation.

9. The Honorable Peter B. Teets, Undersecretary of the Air Force, Air Force Association symposium, November 15, 2002, quoted in United States Air Force, *Counterspace Operations*, Air Force Doctrine Document 2-2.1, August 2, 2004, p. viii, at [www.dtic.mil/doctrine/jel/service\\_pubs/afdd2\\_2\\_1.pdf](http://www.dtic.mil/doctrine/jel/service_pubs/afdd2_2_1.pdf).

10. *Ibid.*, p. 2 .

11. *Counterspace Operations*, Air Force Doctrine Document 2-2.1, August 2, 2004, at [www.dtic.mil/doctrine/jel/service\\_pubs/afdd2\\_2\\_1.pdf](http://www.dtic.mil/doctrine/jel/service_pubs/afdd2_2_1.pdf).

Another example is the release of the National Space Policy, released on October 6, the Friday before the three-day Columbus Day weekend. The media didn't even notice it had been released until the middle of the following week. Perhaps that was deliberate on the part of those who released it at that time.

Third, and very troubling, is the Quadrennial Defense Review. The 2001 QDR, the Pentagon's foundational planning document, asserted that "A key objective for transformation, therefore, is not only to ensure the U.S. ability to exploit space for military purposes, but also as required to deny an adversary's ability to do so."<sup>12</sup> But the most recent QDR, released in February 2006, asserted no such objective and focused only on building up space situational awareness and defensive means of satellite protection.

Another example: no funding for kinetic ASATs. Air Force budget documents note that "consistent with DOD policy, the negation efforts of this program currently focus on...technologies which have temporary, localized, or reversible means."<sup>13</sup> In other words, we are only funding offensive counter-space programs that do not permanently destroy or disable the adversary's satellite. Clearly, the Chinese do not feel similarly encumbered. We should use reversible ASATs when practical, but we need to have the capability to eliminate a hostile satellite when necessary.

A fifth example: cancellation of an ASAT program. The Counter-Space Reconnaissance System, designed to reversibly deny the enemy access to intelligence satellites, was cancelled in 2004, and this cancellation went through despite the fact that, according to officials from Air Force Space Command, the military "continues to have a validated requirement" for the system.<sup>14</sup> So why was it cancelled?

A sixth example: cutting Space Situational Awareness. In March 2006, Lt. Gen. Frank Klotz of U.S. Space Command told the House Armed Services Committee that present space situational awareness capabilities "are not adequate to counter future threats."<sup>15</sup> Despite this testimony, the Air Force has recently cancelled one critical SSA program, the Orbital Deep-Space Imager,<sup>16</sup> and cut FY 2008 funding for another, modernization of the "Space Fence," by more than 70 percent.<sup>17</sup> Once again, the Air Force has validated requirements for both systems, but according to a Space Command spokesman, "the decision was made to move those funds toward higher...Air Force priorities." Meanwhile, systems that have survived, such as the Space-Based Surveillance System (SBSS), are not scheduled for deployment until at least 2012 or 2013.

A seventh example: no funding for space-based missile defense. The past five years have seen serious backpedaling on missile defense in space, including cancellation of the Space-Based Laser and the removal of the kill vehicle from the NFIRE satellite. The 2007 budget funded no space-based missile defense work. Modest funding was to begin in 2008 for a space-based missile defense test bed, but some are suggesting that even that will be omitted from the budget when it is sent to Congress in February.

An eighth example: U.S. Space Commission recommendations overlooked. In addition to highlighting the importance of U.S. space assets and their vulnerability, the 2001 report of the U.S. Space Commission made a number of important recommendations. Unfortunately, most of these recommendations have not been implemented.<sup>18</sup>

For example, the commission argued that space must be recognized as a "top national security pri-

12. Department of Defense, *Quadrennial Defense Review Report*, September 30, 2001, p. 31.

13. John A. Tirpak, "Space and Counterspace," *Air Force Magazine*, June 2006, at [www.afa.org/magazine/june2006/0606space.html](http://www.afa.org/magazine/june2006/0606space.html).

14. *Ibid.*

15. *Ibid.*

16. *Ibid.*

17. "Pentagon Cuts 'Space Fence' Funding," *InsideDefense.com*, December 23, 2006, at [www.military.com/features/0,15240,121142,00.html](http://www.military.com/features/0,15240,121142,00.html).

18. Jeremy Singer, "War on Terror Supersedes 2001 Space Commission Vision," *Space News*, January 23, 2006, at [www.space.com/spacenews/archive06/Space\\_012306.html](http://www.space.com/spacenews/archive06/Space_012306.html).

ority” by the President and recommended establishing a presidential advisory group and an inter-agency group for national security in space. None of these steps has been taken. The Defense Department has not created a separate funding category, or “Major Force Program,” for space, meaning that space security funds can be (and frequently are) diverted to pay for shortfalls in non-space areas.

The report also noted the inevitability of conflict in space and urged decision makers to “develop the means both to deter and to defend against hostile acts in and from space.”<sup>19</sup> As I noted, we still lack proper defensive and offensive programs.

This demonstrates the paradox of the U.S.–China competition in space. The Chinese profess peaceful intent and unambiguous opposition to space weapons. At the same time, they are developing and testing a multi-layered space warfare capability. The U.S. on the other hand, repudiates arms control, publicly asserts its rights to deny space access to our enemies, and yet seems ambivalent toward the means of exerting that control.

### What Needs to Be Done

We need to show our commitment to space security through action. Here are six recommendations.

The first is to implement proposals in the report of the U.S. Space Commission, released in 2001 after months of hard work and serious thought. Senator Wayne Allard inserted language in last year’s Defense Authorization Act calling for an independent review and assessment of DOD’s progress in implementing some of the Space Commission’s key recommendations. Upon release, the “Allard Report” should be the subject of extensive hearings before the House and Senate Armed Services Committees.<sup>20</sup> Next year’s defense bill should include the changes necessary to ensure that the DOD, and particularly the Air Force, are organized and equipped to meet the threat.

A second recommendation: Congress also needs to hold hearings to ensure that the Chinese ASAT program is not based on U.S. technology, either shared or stolen. If further export controls are nec-

essary to slow China’s ASAT development, they must be considered.

Third, the U.S. needs to ensure that our military has access to so-called operationally responsive space, defined as “the ability to launch—and activate quickly—militarily useful satellites.”<sup>21</sup> In a world where our space assets are likely to be threatened, operationally responsive space capabilities will allow us to quickly and affordably replace assets lost to anti-satellite attacks.

Fourth, the Missile Defense Agency needs to begin building a “Space-Based Test Bed,” which would include both kinetic and directed energy components. The best way to protect our satellites from missile-borne ASATs is to ensure that the missiles never leave the atmosphere, and the best way to destroy missiles in the boost phase is from space.

Fifth, the Defense Department and Congress must ensure that the budget for Space Control is adequate to meet the threat. The budget for all three elements added up to less than \$500 million for fiscal year 2007—less than one-half of 1 percent of the total Air Force budget. This is clearly not enough. We are not funding kinetic kill ASATs, and, as I mentioned earlier, important offensive counter-space and situational awareness programs have recently been cancelled due to lack of funds. Even though the budget environment is tight and resources are not unlimited, America can afford to defend our vital interests in space. In fact, we can’t afford not to.

As part of this effort, the Defense Department needs to send Congress a budget that reflects the requirements for meeting the threat in space. Too often, DOD is deterred from making requests because they expect controversial programs to be cut or zeroed out by Congress. But space security advocates, like myself, find it much harder to fight for space programs when the Defense Department is timid about requesting them in the first place.

Finally, I believe that conservatives must make space security a priority once again. Most of the cur-

19. *Ibid.*

20. FY 2007 National Defense Authorization Act, Section 914, pp. 794–795.

21. As defined in the FY 2007 National Defense Authorization Act, Section 913, p. 794.

rent neglect happened on our watch, but space security and missile defense are as much a part of the Reagan legacy as economic growth and constitutional judges. Organizations like The Heritage Foundation have continued to make the case for a sensible space policy, and now it is time for conservatives in Congress and elsewhere to take that case once again to the American public. For all of the reasons discussed above, I believe that this is an argument we can win.

## Conclusion

In conclusion, this Chinese ASAT test was a wake-up call. We cannot depend on uncontested access to space in the future. While it is comforting to think that this threat can be neutralized through negotiation and arms control, I have attempted to show here today that it cannot.

In fact, going down the arms control route is only likely to further weaken our security. The proper response is to examine space policy, doctrine, and programs and ensure that we can defend the American people and our access to space. Ronald Reagan once said “of the four wars in my lifetime, none came about because the United States was too strong.”

We know what we need to do. The question is: Do we have the will and the focus? China clearly does, and they have shown us that we can be complacent no longer. Now is the time for us to act.

## Questions and Answers

**FRANK GAFFNEY, CENTER FOR SECURITY POLICY:** I wanted to pick up on something that’s central to your critique of the alternative approach. I had the privilege of serving with President Reagan 24 years ago. Henry Cooper and I collaborated in an interagency study, at congressional request, that looked exhaustively at whether there was any way to come up with a verifiable, effective arms control treaty banning anti-satellite activities and weapons, and we found there simply wasn’t.

I’m unaware of any changes that have actually made that more possible today. In fact, everything, as you indicate in your speech, suggests otherwise. How can it possibly be that the United States State Department as recently as Friday, as you pointed out, is talking about preventing the militarization of space, which is, of course, the code under which this idea of banning such weapons would be

advanced? Could you speak to both the intractable arms control problems and why this State Department is similarly drinking the Kool-Aid?

**SENATOR KYL:** The State Department’s position runs counter to expressed presidential direction. I refer any of you who would like to get the real detailed information on this to the report to the Congress on U.S. policy on ASAT arms control dated March 31, 1984, by Frank Gaffney and Ambassador Hank Cooper. It is a wonderfully documented paper on all of the reasons why, as much as you might try to verify this kind of a treaty, it is inherently impossible to do so. Without trying to characterize all of the arguments here, I tried to summarize them very briefly.

Frank Gaffney is exactly correct. The modern technology since 1984 has simply demonstrated (a) the correctness of this position and (b) the fact that the genie is far more out of the bottle now than it was back there. There are now simply so many different ways that you could have an impact on this that it would be inherently impossible to verify.

When people talk about the grand goal of somehow eliminating something that, in reality, cannot be limited except by the voluntary compliance of all the parties, then you also have to examine the intentions of the parties. As I said before, like so many other treaties, this is a perfect example of one in which the people who don’t need a treaty to comply would, and, of course, those who would violate the treaty demonstrate the inappropriateness of that as the way to try to limit the activity. This is a classic case of a situation where, because of technology verification of an ASAT capability, it is simply impossible.

**PEGGY CHANG, VOICE OF AMERICA, CHINA BRANCH:** Senator Kyl, have you talked to some people, some of your colleagues in the Congress, that share your view concerning the Chinese testing of the anti-satellite missile? The second question is: Why do you think there is a general lack of interest in the Administration and Congress to react to this issue?

**SENATOR KYL:** Yes, I have spoken to some of my colleagues about it who are also concerned. We’re just beginning a new Congress. The President has had his State of the Union speech. There is so much on our plate right now, and we are so consumed with the dis-



cussion of Iraq and the war against the terrorists, that important issues like this are not receiving the attention publicly that they should. It's one reason that I chose to speak about this today, even though all of the discussion on the floor of the U.S. Senate this week is going to be on the Iraq resolutions. It's time to start speaking out about this.

As for your question of why the Administration has not been more outspoken, I think it's a function of two things. One is their preoccupation with what the rest of us are preoccupied with—the global war against the terrorists and the current battle that rages in Iraq—but also the complicated relationship with China, which is difficult to manage under the best of circumstances because there is so much in which we want to engage China, certainly starting with trade, and so many areas in which we need China's support—witness resolutions in the Security Council dealing with Iran, for example, and North Korea—that it inhibits our government from being as forthright as I think we should be in criticizing the Chinese when they do something as provocative as this.

We didn't even mention the practical problem that was caused by this test. One reason that countries don't do this kind of thing is because of the danger that it exposes all of us to by the debris that's created in space—something like 40,000 particles, all of which have the capability of destroying—and the majority of the satellites are in the relative range of this space debris that's been created by this test.

That alone would be a reason for the international community to slap China on the wrist and say, "This is not something that you should have done," leaving aside intentions about ASAT capabilities against us. But I suspect that trying to work this complicated relationship that we have with China is part of the reason why we've been muted in our criticism of the test.

**JUDY MATTHEWS, BLOOMBERG NEWS:** You've been talking about what you see as the anemic response by the State Department. Do you think Robert Joseph's departure had anything to do with that?

**SENATOR KYL:** I don't know. I will tell you that Bob Joseph gave a terrific speech, and I would commend that to all of you. On December 13 of last year

at the Marshall Institute, Bob Joseph gave a great speech on the subject. He's certainly been a stalwart in the Administration in support of the position that I adhere to.

**GERRIT VAN DER WEES, FORMOSAN ASSOCIATION OF PUBLIC AFFAIRS:** You said that one of the main reasons is that China wants to knock out U.S. capabilities in the event of a conflict over Taiwan. How can the U.S. at the present time use this situation to strengthen its cooperation with both Japan and Taiwan to counter the Chinese moves?

**SENATOR KYL:** I think it illustrates the necessity of a dynamic response to an action like this, dynamic in the sense that it shouldn't just be the United States. We need to work with allies. Specifically, in that region of the world, you mentioned the two, of course: Taiwan and Japan.

Japan, being a very modern nation, reliant on space technology, ought to be very concerned about and interested in this Chinese test, just as they have been with respect to North Korean missile developments. I suspect that, when we do visit with the Japanese about this, their concerns can be translated into joint action, which is critical to our ability to pursue our own national interests here.

You're quite right. This is not just an American problem, but a problem for what we would now call the free world, but the world that wants peace and that relies a lot on technology.

Every one of us are threatened by this kind of capability—not just in military terms, as I pointed out, but everything from our cell phones to what we watch on TV, how our financial markets work, and the weather reports and everything else. We are simply becoming so dependent on this technology that the ability of any rogue regime to disrupt that ought to be of concern to the family of nations.

**BRUNO MICHAEL, DEFENSE AVIATION WEEK:** Even space and defense advocates in Congress, though, have been critical of a lack of progress and problems in space programs at the Pentagon. The past couple of defense authorization acts have actually criticized the Pentagon for overreaching in some of the programs. Do you think that perhaps the Pentagon isn't reaching far enough, then? Do you think that criticism is wrong?

**SENATOR KYL:** I'm not suggesting that there may not be some problems with some of the programs. Congress can always find room to criticize a Pentagon program. I have suggested that, in some areas, the Pentagon is not reaching high enough or far enough. I personally had some conversations with people at the Pentagon about my views on this.

I would hope that, recognizing the direction from the President, the national policy embodied in the documents that I cited, the Pentagon would be interested in furthering those goals with specific programs and, if there are problems with them, fixing the problems so they're not subject to congressional criticism. It can start with proposing something in a budget.

It makes it very difficult, as I said, for me to argue for something—unless I want to be subject to the earmarks criticism—if it's not in the President's budget or authorized. So it would be very helpful, if they think that something is important, to put it in the budget, and then we can have our discussions about it. If there are problems, then let's work those problems out, but I don't think we can use that as an excuse for all of the litany of problems that I cited to you here today.

**EDWARD ROUTER, SUNSHINE PRESS:** Given the asymmetrical nature of offense versus defense in space, are you concerned about the costs that would be involved in a space arms race, both to defend our satellites and to develop offensive capabilities against a Chinese economy that's booming?

**SENATOR KYL:** That's a very interesting question, because your mind immediately goes back to the Reykjavik Summit and the Reagan decision to move forward with then-called SDI and the subsequent Soviet belief that it would be very difficult to beat us in that particular arms race.

I think that the same thing is true here. Clearly, the United States has such an edge on this technology and such a robust capability financially to engage in this kind of effort that countries like China, for example, would rather not have to engage in the arms race in the sense that we leave the field to them. If they could somehow figure out a way to bind us through some kind of a treaty, I think that would be their dream. Knowing that they might

have to actually compete with us in such a race would pose serious problems for them.

I don't mean just the Chinese here. I mean anybody else as well. Your question assumed the asymmetric nature of this, and there is an asymmetric quality to it which might favor, just hypothetically speaking, a country like Iran, for example, only having to use a medium-range missile, and certainly with some kind of a crude nuclear warhead, an electromagnetic pulse, to do the job. Otherwise, the Chinese technology of the kinetic impact would be required.

I would suggest that, even though there is an asymmetric aspect to this—namely, that it might be easier to take out the satellite than it is to defend against it—that's not as easy as it seems in terms of our capability for both passive and active measures and things that we could do if we really got serious about it. In any event, even if there is an asymmetry to the problem, given the challenge that we have, the importance of maintaining our ability to defend our assets, we have no choice but to ensure that we have the technology to do that.

When I commented on what Senator Biden had said, it related to what we have done and are doing, but I don't mean to suggest that we don't have the capability of providing this kind of defense if we choose to do so. I think, relatively speaking, the cost is not that great.

Don't ask me to define what "great" means over 10 years, but there are ways in which we can devise these protections if we're willing to do it. That's the concern that I have: that, yes, the technology exists for us out there, but we're not willing to take advantage of it.

**JUSTIN KELLER, LOCKHEED MARTIN:** You said that one thing that might come out of this is a need for operationally responsive space. Responsiveness, to me, seems an attribute like survivability that could be built in and should be an animating philosophy in every space system, not just little satellites that get launched on short notice that may not have the same capability of those they would replace. Your thoughts on that?

**SENATOR KYL:** I obviously agree. When you break it down into components, you get into things like reconstitution as part of the system. But clearly,

it would be better not to have to reconstitute.

We already know how to do some passive things to harden satellites against various threats and so on. We know how to maneuver them. But just think about this in terms of the verifiability argument that I made before. Every defensive move that you can conceive of that we could make, except hardening, represents a potential offensive capability as well. That's why this is inherently unverifiable.

If you want to get into more detail on that, you could go probably go a lot further with the point than I can, but it seems to me to be pretty clear. As this debate unfolds, we're going to have to be able to talk about that kind of problem.

**AL MILLIKIN, WASHINGTON INDEPENDENT WRITERS:** I was interested on how you would evaluate, recently, the Chinese government influence, through lobbyists or other special interests, as far as influencing the Congress in particular. Do you see their influence on Capitol Hill?

I'm also wondering: If you would put yourself in the shoes of the head of a Chinese government official pursuing the Chinese agenda, do you think they have to be very pleased with our nonresponse?

**SENATOR KYL:** The answer to both questions is yes, and I'll expand a little bit more on the first one to share a personal experience with you. During debate on technology transfer, for example, many American business constituents came to my office, arguing the Chinese point of view that there should be relatively unlimited tech transfer, arguing against limitations. Some made it quite clear that a condition of their ability to do business in China was to successfully change American policy, and therefore they became the lobbyists for the Chinese government, in effect, to try to change that policy.

**QUESTION:** I am a student from George Mason University School of Public Policy. We know that, in international relations, a so-called security dilemma often happens. The U.S. suspects the intentions of China, and China also suspects the intention of the U.S. So how can you give a solution to the security dilemma between the U.S. and China, and how can the two nations assure each other that they are not hostile to each other?

**SENATOR KYL:** Probably no country more than China represents this dilemma today with respect to intentions as well as capabilities. It is in the United States' interest to have good relations with a growing, freer, peaceful China, and we look for ways to try to foster that kind of a relationship and influence Chinese development along those lines. But China is a great power, a huge future powerhouse peopled with very smart, well-educated people with a very long history and a long-range view of things as compared to our very short-range view sometimes.

There are clearly areas in which hostilities between the two countries could quickly become very serious, Taiwan being the most obvious. There are also important areas for both countries that suggest that cooperation between the two countries would be the best course of action, and I suspect that both countries are trying to manage this evolving difficult relationship.

The area in which I criticize our government is in being sometimes unwilling to speak truth to these issues. Sometimes trying to be too diplomatic creates confusion and uncertainty, and in some areas you need clarity.

I understand that in the diplomatic world, sometimes you need lack of clarity as well. But when you're talking about two countries with military potential to hurt themselves, you better be pretty clear with each other.

Second, I quoted Reagan: We've never had a problem in wars when we were too strong. It's when we've been perceived as being too weak, when we do not respond to potential challenges with strength, that we create the impression that it is possible for a country to gain leverage over us by continuing to push in the direction that they're pushing and that maybe the United States will not respond.

Unfortunately, what happens too frequently with the United States is that we don't respond. We want to be left alone. We're all for peace. They clearly can't mean it. Maybe they can be appeased. And then, finally, when the other side has actually committed itself to action adverse to the United States, we wake up to the threat and have to get engaged in a catch-up way, sometimes after a war has been

declared against us, and it's too late to save a lot of the lives that could be saved otherwise.

So it's better, I think, as you go along, to express our displeasure and to do things which clearly can be seen, by the Chinese in this case, as a serious effort on our part to defend ourselves in the event that the Chinese intentions are not benign and then, finally, to use all of the leverage that we have in dealing with a great country like China.

I remember when I was on the House Armed Services Committee, and I think it was Secretary of Defense Caspar Weinberger who was being questioned. We were talking about how to influence policy, and he said: Look, the Chinese are very good at focusing every decision that's made during the course of a week or a month on one particular problem. Whether it's issuing visas to somebody to travel to the country or signing some agricultural agreement or objecting to something in their public press or whatever it might be, they can become very focused, and every one of their decisions—and there will be hundreds in a week—are focused on achieving a particular objective.

In the United States, in our government, we have maybe hundreds of decisions every week that could affect China in some way or another. They are not coordinated. Some of them can be very negative, others can be very effusively positive, and there's no coordination of that effort. But we have the way, if we are focused and if our government is united on this, to influence policy by a myriad of decisions that we can make, none of which is huge, but all of which combined together can have a significant influence.

The Chinese are the best at doing this. Every time somebody from Taiwan wants to come over here that has some kind of a title, you hear about it, and it almost becomes an act of war if we grant a visa to somebody to come to the United States. What if we took the same kind of position relative to things that we don't like about China? The dynamic would be a lot different. I think we have to be a bit more forward leaning on things like that, and it would be hard for them to complain since that's precisely the way that they work against us.

So firmness, clarity of purpose, clarity in expression—I think all of these would suit us a little better

even as we're trying to manage a relationship and foster a relationship which will be peaceful in the future and to the mutual benefit economically of both countries.

**JOHN ZANG, CCITY OF TAIWAN:** On Taiwan, I was wondering whether or not the Chinese development of the ASAT capability and other space capabilities, and the lack of strong response from the United States so far, eventually caused the United States to give second thought to its security commitment to Taiwan.

**SENATOR KYL:** I think, indirectly, the answer to that question could be yes. It should not be, and I hope it doesn't evolve in that direction; but if, as a result of the lack of response, the Chinese believe that they can continue to push further and that pushing creates more controversy, then at least it puts the question more squarely before us in a way that we may not like to have to face.

Second, if we don't respond, and therefore we don't have the capabilities to deter an attack or to defeat an attack should one occur, then clearly our options are limited, and the ways that we might respond are directly affected by that.

We can never allow ourselves to get to the point where it isn't crystal clear to the Chinese what would happen if they engaged in such an attack. If they come to believe that, because of their asymmetric doctrine, which is directly related to our capabilities in that region of the world in response to a Chinese attack or threat, we don't have the ability, then obviously we cannot deter it through our strength alone, and that would have an impact on the calculus that the United States has to engage in, in deciding how to respond should such an attack occur.

I hope you'll carry from this meeting the necessity to focus on more than one thing and, when something like this has happened, to think it through carefully, be willing to talk to other folks about it, and help us develop and execute the policies that we need to keep America free.

—*The Honorable Jon Kyl (R-AZ) is a member of the U.S. Senate. He is ranking minority member of the Subcommittee on Taxation and IRS Oversight of the Committee on Finance and of the Subcommittee on Terrorism, Technology and Homeland Security of the Committee on the Judiciary, as well as chairman of the Senate Republican Conference.*