

Testimony Before the East Asia Subcommittee of the Senate Foreign Relations Committee, March 29, 2017

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I want to thank the Chairman of the Subcommittee for this opportunity to share my views on some of the issues that impact US national security in the Asia-Pacific region. I plan to limit my comments to the security dimensions of the US-China relationship writ large, the threat posed by North Korea's nuclear weapons and ballistic missile programs, and the implications for nuclear terrorism of significant plutonium stocks accumulating in the civilian nuclear power programs of China, Japan and the Republic of Korea.

#### US-China Relations

For the last two decades or so, successive US administrations have sought to characterize the preferred relationship between China and the US in a way that recognized China as a great power with legitimate political, economic and security interests in the Asia-Pacific region. We would expect competition in each of those spheres, but also cooperation to the benefit of both countries, while avoiding military confrontation. Successive administrations have placed the emphasis on different aspects of our relations with China, and used different catch phrases to capture the preferred image of the relationship, but all recognized an inevitable tension between the desired peaceful, constructive competition and cooperation they sought, and the potential for relations to deteriorate to armed conflict.

Just beneath this imagery lie the interests of nations and perceptions of leaders in both countries. The US has always had a vital interest in preserving political and economic access to the countries of Asia, and thus it has opposed any attempt at hegemony in the region. It is this concern, that China will try to establish a sphere of influence which would exclude the US, that is the backdrop to American interpretations of contemporary moves by China in the Asia-Pacific. China's militarization of its claims in the South China sea, and in its contest with Japan over the islands both claim in the East China Sea, give substance to that concern.

From China's perspective, US moves fit a narrative of attempted containment of China, one where the US looks for opportunities to prevent China from protecting its legitimate interests, interests that are proximate to the Chinese mainland and a Pacific ocean away from the continental US. Evidence of the perceived US security strategy is seen in our alliances with Japan, the ROK, Australia and the Philippines, our continued support for Taiwan's independence, and specific military programs which seem to be aimed at undercutting China's nuclear deterrent, particularly our

ballistic missile defense and the imagined strategic implications of plans for a conventional prompt global strike capability.

The truth, of course, is that the US does seek to limit Chinese influence, and we are not at all certain that China is the status quo power it claims to be. Both countries have reason to be wary. The alliance structure on which we and our allies depend for our security is based on extended deterrence, our ability to credibly defend our allies from aggression, to include the use of nuclear weapons...first...if necessary. The Chinese, for their part, have evolved over decades from accepting America's ability to dominate in any critical confrontation by resort to the threat of a disarming first strike with nuclear weapons, to asserting their ability to deter the US from nuclear intimidation by finally achieving a survivable retaliatory capability.

Since the US has not acknowledged that China, like Russia, has an assured destruction capability vis a vis the US, there is then the possibility of a catastrophic miscalculation in a crisis involving the vital interests of both parties. That crisis is most likely to occur not over the Korean peninsula, but Taiwan. Taiwan's status is a core interest of China, and that it not be changed by China's use of force is critical to the credibility of American assurances to Taiwan – and to our alliance credibility everywhere. Scenarios leading to a confrontation over Taiwan can begin in Beijing if, for example, the Chinese leadership felt the need to stoke nationalistic fervor to distract attention from poor economic performance, or in Taipei, if the leadership there saw an opportunity to get out from under the “one China” policy of Beijing and Washington. The message here is to be very careful in a Taiwan contingency, and for the US to keep the nuclear threshold with China as high as possible by maintaining robust conventional force capabilities to counter Chinese military and naval modernization aimed specifically at overcoming a US defense of Taiwan.

So the effort at a balanced policy with China should continue, one where we respect its global economic and political importance, and recognize its growing military capability, but avoid even the appearance of retreat in its face.

## North Korea

North Korea's nuclear weapons and ballistic missile programs directly threaten our allies, the Republic of Korea and Japan, and in a few years we expect they will pose the same threat to the United States. Preventing the latter ought to be a policy objective of the US, both for the security of the American people and the credibility of the deterrent we extend to our allies. That said, we should also recognize that we have lived with the threat of nuclear armed ICBMs pointed at us from the Soviet Union, now Russia, and China for many decades without any effective ballistic missile defense (BMD), including years in which we were not entirely comfortable with the rationality of the leadership we hoped to deter with our own strategic nuclear forces. In short, relying on deterrence to deal with the North Korean threat

is less desirable than an effective BMD, but plausibly more attractive than a major war to remove that threat in the absence of such BMD.

In terms of scenarios about which we should be concerned, a strike out of the blue from the North seems most unlikely, but the escalation of an incident between North and South at sea or near the DMZ seems quite plausible, particularly since we really have no idea what North Korea thinks nuclear weapons are good for. If they imagine that their ability to strike with nuclear weapons will deter the South and the US from a conventional engagement following a provocation from the North, they would be mistaken, and tragically so. We need to remember that we and other states have lived with our own nuclear weapons for a long time, and at least some of them have come to appreciate the delicacy and nuance of deterrent calculations. We should not assume that the leadership in Pyongyang could be so described.

Among developments we need to be most concerned about in terms of probability of occurrence and magnitude of impact, is the transfer by North Korea of nuclear weapons materials or technology to another state or terrorist group. This occurred a decade ago when the North built a plutonium production reactor in Syria. Fissile material was denied to the Syrians, and others who might have gotten their hands on it, by an Israeli air strike that flattened the facility before the reactor went critical. But it is this type of activity, selling fissile material, the equipment or technology to produce it, nuclear weapons components or designs, or even the weapons themselves, that would create the nightmare scenario of nuclear terrorism we most fear. Taking an early opportunity to underline for Pyongyang that such transfers will be met with a swift retaliatory response would be a good idea.

Policy prescriptions generally fall into three options: containment, military force and negotiation. The dilemma has been that containment has been seen as too passive, allowing the threat to grow, military force to costly, particularly now that the North has nuclear weapons, and negotiation ineffective, as many judge the North to have cheated on past deals. But these options should not be regarded as mutually exclusive, and perhaps a strategy built from each of them has some chance of success.

Containment has been our default posture, involving sanctions, pressure on China to allow them to work, and even to apply the kind of additional pressure on Pyongyang that only China can. Military exercises and planning with our allies, the ROK and Japan, are an essential element of this posture in order to keep our alliances strong. Also included here are “non-kinetic” moves, such as cyber attacks, from which we should expect retaliation in kind. But so far, we have no reason to believe that this approach will either block the accumulation of fissile material and nuclear weapons, or the testing of nuclear weapons and extended range ballistic missiles, much less cause the regime to collapse.

Military force to prevent the emergence of a nuclear weapons capability was seriously contemplated and prepared for in 1994 during the Clinton administration

and the negotiations that led to the Agreed Framework. It was not pursued because the North eventually accepted a halt to its plutonium program that lasted a decade. Now that the North has had five nuclear tests and manufactured perhaps a dozen weapons, along with ballistic missiles that could plausibly deliver them to South Korea and Japan, the stakes are quite a bit higher. As the North moves to solid fueled, mobile missiles for its ICBM capability, the "left of launch" option becomes more challenging, and our ballistic missile defense capability regionally, and for the US homeland, is leaky at best. While this should not discourage any genuine pre-emptive strike on the North, that is, to prevent an imminent launch against the US or its allies, it should cause us to think hard before attempting regime change or even choosing a preventive strike aimed at delaying the emergence of an ICBM capability.

Negotiations are seen by many observers as a failed policy, unlikely to succeed with a regime that cannot be trusted. Interestingly, the North appears to feel the same way. In fact, there is no question that the North cheated on the 1994 deal by buying uranium enrichment equipment and technology from Pakistan, thus allowing it to produce one kind of fissile material as it stopped producing another. But there is also no question that the deal stopped a plutonium production program which, each year, we estimated would have been producing enough fissile material, by the year 2000, for forty nuclear weapons. As it turned out, because of the deal, by 2000, the North had no nuclear weapons. For its part, the North plausibly thought that the Agreed Framework would result in normal relations with the US, and thus remove the need to acquire nuclear weapons as a way to deter us from attempting regime change. It may as plausibly be argued that they hedged that bet with the uranium enrichment deal with Pakistan and concluded early in the Bush Administration that a hostile relationship with the US still existed and so nuclear weapons were still required.

Of course, these propositions may not be accurate and the North may now, if not decades ago, have less benign reasons for wanting nuclear weapons. The question is whether or not it would be prudent to find out by engaging in negotiations. If we decide to explore that route, we should be careful to keep the object a nuclear weapons free North Korea. This would not mean shunning interim steps involving freezes of various types, but it would mean rejecting the North's position that it will never give up its nuclear weapons. Were we to accept that position and enter protracted negotiations, we would legitimize the North Korean nuclear weapons program and create domestic political pressure in the South and in Japan to follow suit.

We should also recognize that if there is a route to a non-nuclear North Korea via some sort of settlement, the deal will have to address the North's concern about a US led effort to change the regime in Pyongyang. It will have to give the North what it believes it gets from nuclear weapons. The outcome would have to be the establishment of normal relations between the US and the DPRK, to include a peace treaty to replace the armistice, but also establishment of diplomatic, political and economic ties. And this is only plausible if the North adopts human rights standards

in its treatment of its own people that are acceptable to the international community. None of this will be easy.

How these three approaches can be integrated, or deciding if tougher sanctions need to proceed serious negotiations, or whether robust military exercises and maintaining the threat of military action are useful or destructive of engagement are tactical questions worthy of discussion. It is worth noting, though, that our unwillingness to move to the negotiating table on the heels of a North Korean nuclear or ballistic missile test reflects a concern that we not be perceived at home or abroad as rushing to talk after being threatened. And the leadership in the North may well take a similar position.

### Nuclear Terrorism

It has been said that nuclear terrorism is a very high consequence, but very low probability event. The first part of the proposition is certainly true. The technology of seventy years ago produced an event that instantaneously killed thirty thousand people in one city, and many times more than that died in the following weeks. Nothing else that we know of, natural or man made, except perhaps a meteor strike, can do that: that much death in an instant.

The second part of the proposition is arguably true because, to begin with, we have not seen a nuclear weapon detonated by a terrorist over those seventy years. And the reason we have not is certainly not because there have not been, and are not now, terrorist organizations that have sought to acquire a nuclear weapon. We know that they have, and have reason to believe that they will continue to try. The obstacle to their success has been the difficulty of acquiring a nuclear weapon or the fissile material to make one – an improvised nuclear device (IND). This situation, what makes nuclear terrorism a low probability event, may be about to change because of decisions made in Northeast Asia about how to pursue electrical power production from nuclear energy.

Japan now owns forty-four tonnes of separated plutonium, of which about twenty percent (nine tonnes) is stored in Japan. The rest, eighty percent (35 tonnes), is stored in France and the United Kingdom, where it was separated from Japanese spent fuel. The plutonium stored in Europe is supposed to be shipped back to Japan by the end of the decade. All this plutonium – easily more than enough for seven thousand nuclear weapons – was separated from spent fuel produced in Japanese nuclear power reactors so that it might be used in Japan's fast breeder reactor development program or recycled for use in some of Japan's current generation of thermal nuclear reactors. But Japan has abandoned its operation and development of fast breeder reactors and, post-Fukushima, it will likely only operate a few reactors with a mix of plutonium and uranium in their fuel. There is, then, no clear plan about what to do with thousands of nuclear weapons worth of plutonium that will be stockpiled in Japan.

If this were not bad enough, Japan is currently planning to start up a new reprocessing plant at Rokkasho that will produce even more separated plutonium. Since there is already a plutonium “overhang,” the Japanese are considering running the new plant at 20% capacity, which would still produce one and one-half tonnes of plutonium each year, enough for at least an additional two hundred and fifty nuclear weapons.

There are at least two concerns here. First, Japan’s neighbors, China and South Korea, worry that Japan is accumulating all this plutonium as part of a hedging strategy, aimed at greatly shortening the time it would take to build a credible nuclear weapons arsenal should the decision be made in Tokyo to abandon the country’s non-nuclear weapons status and leave the NPT.

Whatever may be thought of that, it is the second concern that relates to nuclear terrorism. To the extent that Japan seeks to fuel its nuclear power reactors with a mixture of plutonium and uranium – as opposed to simply using low enriched uranium – it will be planning on the regular circulation of nuclear weapons material in civilian facilities, with civilian security, for an indefinite period. Depending on how many reactors it eventually so fuels, plutonium will become vulnerable to theft in multiple locations and in transit around the countryside. This cannot be a good idea.

The US could choose to try and influence Japanese thinking since the US-Japan agreement for nuclear cooperation is up for renewal next year. If neither country objects, it will automatically renew. But against the backdrop of renewal of the agreement, the US could engage Tokyo in discussion about the wisdom of a new reprocessing facility opening in the next few years, and generally about recycle as compared to other methods of dealing with its growing plutonium stockpile.

At the same time the civil plutonium issue is playing out in Japan, China has negotiated with France for the purchase of a reprocessing plant to handle spent fuel from its civilian nuclear energy sector. The plant would be the same size as Rokkasho, separating enough plutonium each year to make more than a thousand nuclear weapons. Again, if all went according to plan, some portion of that plutonium would be mixed with uranium and be moving about China to fuel China’s growing nuclear power program. This would be another challenge to physical security; another opportunity for the nuclear terrorist.

Finally, there is the Republic Korea, which has a substantial nuclear power program and the desire to do what its neighbors plan to do, separate plutonium from spent commercial nuclear fuel. However, since the ROK’s agreement for nuclear cooperation with the US requires US approval before reprocessing, the decision to do so has been put off a bit as both sides consider the “proliferation resistance” of the technology that the South proposes to use in reprocessing. But if the outcome is yet another reprocessing plant in Northeast Asia separating plutonium from spent

fuel, it is difficult not to see this facility as presenting yet another opportunity for the acquisition of fissile material by terrorist groups seeking to manufacture one or more nuclear weapons.

Interestingly, when the US Blue Ribbon Commission Report of 2012 considered the economics of reprocessing, it found no good argument for separating plutonium from spent fuel. Not even waste management concerns would justify reprocessing, especially if dry, cement storage were adopted until a politically acceptable long term storage site could be found. This all suggests that perhaps if the three countries involved here, Japan, China and South Korea, all of whom are watching the decisions taken in the other capitols, were to agree on a moratorium on reprocessing of spent fuel for civilian purposes, it would make the region and the world a safer place.