

The Nonproliferation Policy Education Center's two-day conference with the Lowy Institute on Asia's Nuclear Future covered many topics but the key takeaway can be summarized in one sentence: The nuclear and strategic weapons challenges that seem relatively manageable in Europe are less so in Asia. The good news is that the Asian challenges, for all of their difficulty, are relatively new. As a result, there still is time to keep them from becoming intractable. The not so good news is that these challenges have yet to be seriously attended to.

A key reason why is that when most experts and officials discuss nuclear issues there is a natural tendency to view them through the lenses of transatlantic history and geography. This is hardly surprising: NATO, the Cold War competition with the Soviets, and the first four nuclear powers all had their origins in this theater.

When US officials consider the most pressing nuclear security challenges -

1. reducing Russia's large nuclear arsenal,
2. keeping civilian nuclear energy peaceful,
3. managing missile defenses and
4. limiting offensive ballistic missiles

- then, there is a natural tendency to use the last 70 years of transatlantic history as their point of departure. As a result, their prognoses and the diagnoses are relatively predictable.

weapons arsenal but, as with its diminishing strategic nuclear force, Moscow can be persuaded to give them up. The reason why is basic: There is no clear reason, Western arms control experts insist, for Russia to keep them. As for keeping civilian nuclear power peaceful, this too is viewed as being manageable. Just as Euratom kept most of Europe's nuclear facilities properly safeguarded against theft or military diversions, what's needed, nonproliferation experts tell us, is more multinational management of nuclear plants and more intrusive additional inspections.

Regarding the further limitation of offensive nuclear capable ballistic missiles, the transatlantic theater has already seen considerable progress. The Intermediate Nuclear Forces agreement of 1987 eliminated all land-based ballistic missiles between the ranges of 500 and 5,500 kilometers and SALT and START have significantly limited the number and configuration of Russian and American intercontinental ballistic missiles. Finally, in regard to missile defenses, NATO and the US have shown a willingness to modify earlier plans to deploy such systems in Poland and the Czech Republic to accommodate Russian objections. There are also proposals to cooperate with Moscow in integrating Russian missile defense capabilities with American and NATO systems to guard against emerging Iranian ballistic missiles.

When one turns to Asia, though, it is difficult to find any of these transatlantic arms control precedents in play and the nuclear competitions are far more complicated.

Instead of one dominant, relatively reluctant set
of nuclear competitors -- Russia versus NATO -- Asia offers several

versus China; Pakistan versus India; North Korea versus South Korea, Japan and the US; and India versus China. .

Also, unlike the transatlantic theater, Asia has several states that might go nuclear within the next two decades. Among these are Japan, South Korea, and Taiwan. Burma and Indonesia are also longer term worries. Finally, Asian alliances are far less comprehensive and cohesive than in the transatlantic theater. The US has bilateral understandings with most of the key players but each is slightly different and what understandings there may be among other players in Asia are far less substantial. All of this makes Asia a far more uncertain strategic setting.

Certainly, the challenge of reducing Russia's nuclear arsenal is far greater when one factors in Moscow's apprehensions regarding China. Russia already believes that it is behind the NATO in conventional military capabilities. That is why it argues that it needs to maintain its tactical weapons arsenal as a counterbalance. Most of Europe, however, is not investing very much in the development of advanced conventional forces. China, in contrast, is. In some sectors (e.g., deployed, advanced conventional ballistic missiles with terminal guidance), China may actually be moving ahead of the U.S. Given Russia's declining Far Eastern population, its judgment that it cannot catch up to the fifth and sixth-generation conventional force capabilities of the US, its allies, Russia's past history of tensions with China, and Russia's thin military presence in the Far East, Moscow has strong

nuclear weapons capabilities.

Safeguarding civilian nuclear power is also a much greater challenge in Asia. First, unlike Europe and North America, where all of the nuclear weapons states --the US, Russia, France, and the UK --are all members of the Nuclear Nonproliferation Treaty (NPT) and have publicly announced nuclear testing and weapons fissile production moratoriums, in Asia nearly all of the weapons states --Pakistan, India, North Korea, and China -continue to make nuclear weapons materials or refuse to declare that they do not or will not produce such fuels. Japan, meanwhile, is one of the few nonweapons states to amass tons of nuclear weapons usable plutonium for civilian purposes and is about to expand its capacity to do so dramatically. South Korea would like to recycle its nuclear waste as well. In addition, Asia contains the only state, North Korea, that continues to test nuclear weapons and India, which recently publicly debated the merits of whether or not it should resume nuclear testing.

Finally, Asia contains at least three parties --South Korea, Taiwan, and North Korea --that have violated their International Atomic Energy Agency (IAEA) safeguards agreements. The possibility of Taiwan and South Korea again trying to acquire nuclear weapons and evading IAEA inspectors still is a proliferation concern and the mounting stockpiles of nuclear weapons usable materials in Japan constitutes a potential nuclear powder keg. The further augmentation of civilian nuclear energy in Asia, then, particularly

prove to be explosive in ways most unlikely in the US or Europe.

As for both defensive and offensive nuclear capable ballistic missile trends in Asia, these too are far more complex and potentially worrisome than they are in the transatlantic theater. Not just the US and Russia, but Japan, China, and India are developing missile defense systems to cope with growing nuclear and conventionally armed ballistic missile threats now being posed not only by North Korea, but India, Pakistan, the US, China, and Russia. As a result, trying to implement cooperative missile defense programs to increase trust in Asia, such as being proposed for the US and Russia to deal with Iran, would be far more difficult.

Certainly, Asia's possible nuclear futures are different enough from those in the transatlantic context to suggest that the most popular proposals for going to zero nuclear weapons (e.g., finalizing the Comprehensive Test Ban Treaty, the Fissile Material Production Cut Off Treaty, Strategic Arms Reduction Treaty follow-ons) may be problematical or will need to be complimented with additional initiatives. Even when proposals to strengthen the NPT and the IAEA are added to the list, achieving nuclear restraint in Asia would seem to require more.

First, growing Russian fears of its inability to keep up with the defense modernization occurring in China and, to a lesser extent with NATO, will need to be addressed if there is to be any hope of keeping Moscow from relying even more on nuclear weapons to protect its interests. This will be

that the current gap between its strategic forces and those it faces in Asia cannot be credibly addressed by deploying more nuclear weapons. Certainly, if this cannot be accomplished, the chances of reducing Russia's current reliance on nuclear systems will decline.

Second, keeping civilian nuclear energy peaceful in Asia will likely require more than merely backing the transatlantic package of solutions - i.e., more intrusive inspections and multilateralization of existing and new nuclear fuel making facilities. Instead, or in addition, several conference participants argued that it will be imperative actually to reduce the demand for nuclear energy by highlighting its alternatives in market competitions. One workshop advocate of renewables, energy efficiency innovations, and other alternative sources of energy insisted that these alternatives could provide low carbon energy for far less far sooner than new nuclear power plants can and avoid the nuclear weapons proliferation risks associated with nuclear power.

Another workshop participant noted that under the principles of the Energy Charter Treaty and the Global Charter for Sustainable Energy Development, all states are supposed to internalize the full costs of any large energy project and allow it to compete openly in international bidding against all alternatives. Unfortunately, these principles, it was noted, are now generally honored in the breach. What international competitions there are for large energy projects are almost always restricted in the case of nuclear power to competitive bids for only for nuclear power plants. Also,

frequently are used to reduce the bidding price (e.g., in the case of the recent South Korean nuclear bid for the UAE's business).

The link between opening up commercial competitions and reducing carbon was also explored. As several workshop participants noted, the best way to reduce carbon emissions is in the quickest, cheapest fashion. To accomplish this, one would have to place large energy projects in competition to see which can come on line the soonest for the least amount of money to reduce carbon emissions at variety of price points. As for enforcement, this might be accomplished by having the World Trade Organization assume responsibility for policing international commerce relating to large energy projects. Its job would be as it normally is --to make sure the project bids reflect their full costs and that the competitions are truly open to all energy types.

With regard to offensive and defensive ballistic missile competitions, a key difference between Asia and the transatlantic theater is Asia's lack of any of any ballistic missile limits. The clearest and most immediate need for such limits that was highlighted at the workshop concerned India and Pakistan where these two states' militaries plan on piling forces against one another along their borders. As these two nations implement these plans, the number of dual-use (nuclear and conventional capable) short-range ballistic missiles deployed there is certain to increase. This is worrisome since it is impossible to know whether such missiles are carrying nuclear or conventional warheads.

At this and NPEC's previous Asian workshop in Washington, senior Pakistani and Indian retired military officers and other regional experts recommended eliminating these missiles from both sides starting with the shortest range ballistic missile classes first. The hope is that this idea might be pursued in the current Indo-Pakistani military confidence building talks.

This recommendation, though, could have wider application. Some workshop participants raised concerns about American plans to deploy conventional long-range ballistic missiles that might threaten China's strategic assets. Other participants, meanwhile, worried aloud about China's deployment of precise conventional anti-ship ballistic missiles that could target America's carrier battle groups in the Eastern Pacific. Whether or not the US and China could ever agree to limit their respective missiles is unclear. If such limits could be agreed to and were extensive enough, though, one participant mused that it could make increased US - Chinese space cooperation far less risky since there would be far less to worry about regarding possible transfer of militarily relevant ballistic missile technology.

Agreement to such limits would clearly reduce demand for missile defenses in Asia. Yet, the workshop participants doubted that they would eliminate demand for such defenses. As already noted, not just the US, but Japan, China, Russia and India all have ballistic missile defense programs underway for a variety of very clearly different reasons.

missile defense deployments might only aggravate existing conventional asymmetries. This, in turn, they argued, might prompt the weaker conventional competitor - Pakistan - to rely even more on nuclear arms and threats of early use.

Others at the workshop worried that the uncontrolled development of ballistic missile defense systems that relied on ballistic missile technology themselves could be used as a pretext for spreading large rocket technology to allies under the banner of defensive technology. Finally, several participants raised concerns about the US or its allies deploying of missile defenses near China while others portrayed missile defense cooperation as a new form of alliance glue with major nonproliferation and security benefits.

The workshop's participants suggested several ideas to address these concerns. Conventional military asymmetries in the Indian and Pakistani case might be mitigated by thinning forces out along the Indian and Pakistani borders. This would include eliminating short range ballistic missiles there. Although much more challenging, some effort to thin out the most threatening forces on either side of the Taiwan Straits might also be tried. Here, special attention would have to be paid to China's continued build up of conventional ballistic missile forces.

With regard to the missile proliferation dangers inherent to promoting missile defense systems that rely so heavily on large ballistic missile

systems themselves, it was suggested that time limits might be placed on the deployment of such systems to exert pressure on all missile defense states to move toward newer missile defense concepts --e.g., drone carrying missile interceptors, directed energy systems, and space-based systems -that did not rely on large rocket interceptors. Yet another idea was to limit systems that were not deployed on one's soil to MTCR category-one energy limits.

All of these ideas are relatively new. That they come from consideration of Asia's strategic future, though, is hardly surprising: Asia's nuclear strategic threats, after all, are themselves relatively new and clearly differ from those we have long labored with in the transatlantic theater. Certainly keeping Asia's strategic threats from being fully realized will call for new approaches other than and in addition to what has been tried before.