

## CHAPTER 13

### MISSILES FOR PEACE

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In an effort to reduce U.S. military reliance on nuclear weapons, the Barack Obama administration is emphasizing how much more America can rely on advanced non-nuclear weapons to defend its interests, allies, and friends. There is only one problem: The White House’s plans to deploy these weapons systems – including new non-nuclear missile defenses and long-range conventional missiles – do not quite add up.

The missile defense system the Obama administration has advocated may be incapable of countering the missile threat the Pentagon is projecting. Meanwhile, the long-range conventional missile system the Pentagon is working on is unlikely to be able to reach anything but a mere handful of targets.

None of this, however, is inevitable. Both programs can be enhanced, but only at the risk of upsetting America’s two largest potential rivals: China and Russia. Still, enhancing these programs would limit the harm either China or Russia might otherwise be able to inflict on the United States and its allies. More importantly, it would put the United States in a far better position to get Beijing and Moscow to agree to deep ground-based, nuclear-capable missile reductions and to cooperate on missile defenses – which, in turn, would make all parties far safer.

This is conceivable if the United States had the right offensive and defensive programs in place. Unfortunately, the United States doesn't yet. Take the administration's missile defense efforts. The Pentagon announced in 2009 that it was deploying the first fully tested version of a system known as the Standard Missile-3 (SM-3) to neutralize Iran's shorter-range rockets. After 2018, the Pentagon says it will begin deploying an entirely new variant to neutralize Iran's intermediate- and intercontinental-range ballistic missiles. U.S. intelligence agencies last fall said Iran was most likely to deploy these sometime after 2020.

This all seemed sound enough until Defense Secretary Robert Gates announced in April 2010 that, with sufficient foreign assistance, Iran's longest-range rockets could fly by 2015—5 years earlier than originally projected. Some outside experts have doubted that the much ballyhooed advanced variant of the SM-3—the SM-3 Block II B—could be effective against intercontinental ballistic missiles on any timeline. There has never been any question, though, of the Pentagon being able to field it before 2015. It cannot.

Enter the administration's critics. The fix they are pushing is to ready a two-staged missile defense interceptor derived from the fully tested U.S. homeland defense system currently based in Alaska. This two-stage interceptor is what former President George W. Bush promised to deploy in Poland by 2017, but that President Obama unplugged last fall to mollify the Russians. Whether this system could be brought online and made to work before 2015 is open to debate.

Moscow, however, fears this system will be all too effective. It worries that it might be upgraded to intercept Russian missiles aimed at the North Atlantic Treaty Organization (NATO) and the United States. As

extra insurance against this prospect or the possibility of the most robust SM-3 systems being deployed, Russia included language in the New Strategic Arms Reduction Treaty (New START) linking missile defense limits to limits on offensive missiles. Russia's foreign minister insists the New START language gives Russia the right to leave the treaty if the United States increases its missile defense capabilities significantly.

When it seemed clear that Washington would not need to upgrade the current missile defense system extensively until after the New START agreement expires in 2020, Moscow's rhetorical foot-stamping on the link between New START and missile defenses was easy to dismiss. Now, if by 2015 the Iranians field missiles that could reach America, Moscow's threat to leave the treaty would have to be taken more seriously.

In this case, the United States would face two disagreeable choices. It has 30 ground-based missile defense interceptor launchers based in the United States that can knock down a maximum of 15 incoming missiles (assuming two interceptor shots per attacking missile). It is unclear how well this system would work, however, without any ability to target offensive missiles well before they reach the United States (i.e., in midcourse). The SM-3 Block II B is supposed to afford this capability, as was the two-stage interceptor system that Bush promised Poland. Pushing these programs for deployment before 2020, though, would risk upsetting Moscow, which might react by withdrawing from the New START agreement and by fielding more ballistic missile warheads to penetrate U.S. defenses.

The other option would be to hope for the best, blink, and hold off deploying any midcourse defense

capabilities until 2020. A third option—which the White House now hopes it can pull off—is to get Moscow to agree well before 2015 to deeper nuclear ballistic missile and tactical nuclear weapons cuts and to cooperate with the United States in deploying effective missile defenses against Iran. How willing Moscow might be to reach such an agreement, though, given its long list of military grievances against NATO, is unclear.

Meanwhile, Russia is taking no risks: It is developing missiles that fly entirely or mostly in the atmosphere, making them far more difficult for U.S. missile defenses to neutralize.

## THE CHINESE THREAT

Meanwhile, there is another missile threat on the horizon—that of highly precise, ground-based Chinese intermediate-range, conventionally armed missiles. This threat is one that the United States will need to address no matter what it is able to negotiate with Moscow. Now under development, these Chinese medium-range land-based ballistic and cruise missiles threaten to target U.S. aircraft carrier task forces operating in the Pacific, the Indian Ocean, and the Persian Gulf. The current generation of Chinese missiles already can strike many of our fixed bases and those of our allies and friends in these regions (e.g., Taiwan, Okinawa, and Guam).

This missile threat helps explain why the U.S. Navy is so gung-ho on hosting missile defenses on its *Aegis* cruisers. The Navy, though, is under no illusion: The Chinese already are deploying far more missiles than the United States or its allies have missile defenses. Certainly, in the near term, it will be far cheaper

and easier for the Chinese to produce more offensive ground-based missiles and the Russians to put more nuclear warheads on their large, ground-based ballistic missiles than it will be for the United States to keep building missile defenses to knock them down.

With the production of enough SM-3 interceptors (i.e., thousands), the costs of our missile defenses could drop below that of offensive missile systems, but this would require a good number of America's allies buying large numbers of SM-3 systems. Alternatively, some technical breakthroughs might be made that would enable much smaller, drone-delivered, boost-phase interceptor systems to knock rockets out before they left the atmosphere. In either case, this will take time.

Bottom line: Unless the United States can give Iran, China, and Russia a clear military incentive now to stop building and relying so heavily on offensive ground-launched missiles for their security, Washington risks falling behind a large strategic eight ball. An additional given is that Washington will have to deploy more advanced missile defenses to deal with increasing numbers of ground-based Chinese conventional long-range missiles and Russian nuclear ballistic warheads. This is the case with the Chinese land-based conventional missile threat, even if Obama somehow eliminated all nuclear weapons. Given the current costs of missile defenses, trying to pressure China and Russia not to increase their land-based missile capabilities by simply threatening them with a major U.S. missile defense effort alone, though, is as unlikely to work as the attempt to pressure the Soviet Union in the 1980s was. Something else will be needed.

## LONG-RANGE STRIKE

One idea that has support in Washington is to develop our own fleet of fast-flying, conventional, medium- and long-range strike weapons to put Russia and China's growing land-based nuclear and conventional missile fleets at risk. A clear incentive to do so is that the Russians and Chinese are worried that the United States might. Here, they have cause: China and Russia are investing in long-range missiles to threaten U.S. and allied targets. Moscow and Beijing are fearful that if the United States deployed a fleet of accurate, land-based, fast-flying, conventional missiles of its own, Washington could threaten a vast number of key Chinese and Russian fixed military command and support targets (e.g., above ground radars, storage sites, etc.). Worse, these countries fear the United States might even be able to threaten their ground-based missile forces from their garrisons over key fixed Chinese and Russian transit choke points—i.e., select mobile missile rail lines and assigned mobile missile roads, pre-assigned launch sites, bridges, and tunnels.

Could the United States develop such a weapon system? It nearly did. In the second term of the Bush administration, the Pentagon developed and tested a conventional front end employing metal rods ("Rods from God") that could be mounted on existing U.S. land-based ballistic missiles or on submarine-based ballistic missiles. In 2005, the Pentagon's Defense Science Board determined that highly precise, non-nuclear front ends could be substituted for the nuclear warheads on 50 existing land-based U.S. nuclear-armed rockets for about \$900 million dollars. The board determined that retrofitting these front ends could be completed in a matter of months.

What makes this earlier non-nuclear ballistic missile proposal intriguing is that the Obama administration is now sold on a concept that is somewhat similar. In 2010, Vice President Joe Biden announced the administration's support for a conventional long-range offensive weapon called Prompt Global Strike. This program has several systems under development, but the most prominent one relies on an exotic, yet-to-be-proven, hypersonic boost glide delivery system kludged onto a long-range ballistic missile. As a result, it is very expensive and technologically risky: The first test flight of the system on April 22, 2010, ended in failure, as did the second test flight on August 11, 2011. Current plans are to deploy only one launcher with one to two missiles for possible reload, but development could take years.

Why is the administration pushing such dicey, sophisticated technology? The short answer is arms control. The proposed Prompt Global Strike system is not truly a ballistic missile. More than half of its flight trajectory varies, much like that of a plane. This, White House officials note, is its key advantage: Because it does not fit the New START agreement's definition for a strategic ballistic missile, the system would not be counted against the treaty's ballistic missile limits. This argument, though, hardly makes sense. For starters, the systems have got to be far cheaper and quicker to go with existing technology, convert deployed U.S. nuclear rockets, and make them conventional – rather than try to crash-develop a hypersonic boost glide vehicle front end. Second, given that the Obama administration is currently interested in deploying only a few of these systems, it hardly matters whether they are counted against New START limits or not.

Finally, if the Pentagon is worried about keeping U.S. nuclear warhead deployment numbers up, it could accomplish this simply by taking whatever nuclear warheads it might remove from existing U.S. land-based rockets and uploading them on slower-flying, recallable strategic bombers. Under the New START agreement, nuclear-capable bombers are counted as one nuclear warhead, even if they carry a large number of bombs.

Congressional skeptics and arms control critics, of course, have long worried that the Russians and Chinese might misread any U.S. launch of a conventional ballistic missile as a nuclear strike and react with nuclear rocket strikes of their own. This fear, however, seems misplaced. First, it has to be more destabilizing to continue to threaten China and Russia with nuclear strikes from quick-reaction ballistic missiles based in relatively vulnerable fixed silos in the U.S. Midwest than basing more of our nuclear weapons on slower-flying, recallable, nuclear-capable bombers.

Finally, Russian or Chinese apprehensions about whether proposed U.S. conventional rockets are actually nuclear can be addressed directly: Simply allow Chinese and Russian observers access to U.S. dedicated conventional ballistic-missile bases, give them a chance to send the coordinates of the bases to their militaries, and let them stay on base if they want.

## **THE X-37B OPTION**

In addition to this conventional ballistic-missile scheme, there is another non-nuclear, long-range, quick-strike option that the United States could pursue. On April 22, 2010, the U.S. Air Force successfully launched an experimental unmanned robotic space



plane known as the X-37B. Now orbiting earth, it can stay aloft for up to 9 months and land anywhere it is directed. The Air Force says it was designed to ensure that our war fighters will be provided the capabilities they need. The X-37B could conceivably serve as a quick-alert space surveillance system, an anti-satellite weapon, or a space bomber. Some aerospace experts speculate the United States might fly 10 or more of these systems in space at any one time to accomplish any or all of these missions.

Finally, the United States could augment its efforts to develop medium-range ballistic and cruise missiles that could be launched off ships and planes. It could even hint that it might take up Russia's recent dare to back out of the 1987 Intermediate Nuclear Forces (INF) agreement, which banned all U.S. and Russian ground-launched missiles with ranges between 500 and 5,500 kilometers (km) by threatening to do likewise.

Of course, if the United States were to consolidate the conventional ground-launched strike systems described and the target-acquisition system they require as part of a long-term U.S. conventional deterrence initiative, it would hardly sit well with Russian or Chinese officials. On the other hand, key U.S. and allied military targets are themselves increasingly vulnerable to a first strike from Chinese and Iranian non-nuclear ground-launched missiles and from possible use of Russian and Chinese nuclear missiles. As such, the United States is obliged to do what it can to neutralize these threats.

None of this is at odds with taking a more cooperative approach. If the United States made it clear that it is going to deploy both enhanced non-nuclear offensive and defensive missile systems, it would be certain to

get the attention of Moscow and Beijing. Washington might explain that the United States would prefer to place steep limits on the deployment of medium- and long-range ground-launched missiles—whether they are nuclear or non-nuclear. This would approximate the two-track diplomatic approach that proved successful in the 1980s, when the United States deployed intermediate nuclear missiles while negotiating for their elimination. The result was the eradication of an entire class of ground-launched nuclear missile systems under the INF Treaty.

The logical place to begin in this endeavor would be to propose updating and globalizing the INF understanding by making its limits more precise. One could do this by using the missile range-payload limits of the Missile Technology Control Regime (MTCR), which limits the export of missiles and related technology for systems capable of delivering 500 kilograms (kg) (the weight of a crude first-generation nuclear weapon) more than 300 km. The advantages of updating INF and other proposed missile caps using range-payload limits are several. First, Russia and the United States have already given up all ground-based missiles more than 500 km in range. Second, updating this agreement to factor in MTCR limits and extending it to other key nations, such as China, India, Pakistan, and beyond is an endeavor Moscow and Washington could readily cooperate on to their mutual advantage. Third, it would constructively integrate efforts to prevent the further spread of nuclear-capable missile technology to additional states with efforts to eliminate ground-launched versions where they are currently deployed.

Also, progress on expanding such missile limits could make cooperation on a number of fronts much easier. For starters, the major powers could focus on

defending against much smaller ground-based missile fleets owned by much smaller states. Against these less-robust missile forces, the United States, Russia, China, India, and others could cooperate in deploying missile defenses that would give smaller states a clear disincentive to rely heavily on large, ground-based missiles to provide for their security. Finally, with deep ballistic missile cuts, space cooperation—which might otherwise be off limits for fear of indirectly lending assistance to Russian or Chinese military ballistic-missile programs—would be much easier to conduct.

This alternative world would approximate what President Ronald Reagan hoped for through realization of his other disarmament dream, which was to rid the world of what he called “nuclear missiles,” i.e., reaction ready, ground-based, nuclear-capable missiles. It is a dream that is a natural for missile-defending Reagan Republicans and nuclear-disarming Obama Democrats. Certainly, if our government is serious about getting the United States and others to rely more on conventional deterrence and less on living with the hair-trigger prospect of mutual nuclear missile strikes, the surest way to start is to make America’s long-range missiles less nuclear and its missile defenses more credible against the missile threats that remain.