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Whither the Long Road to Nuclear Zero?



New doctrines and crushing budgetary pressures may well make a non-nuclear world seem irresistible. But regional rivalries persist, and not everyone may be reading from the same strategic script

The phrase "Nuclear Posture Review Implementation Study" hardly trips off the tongue. But this obscure internal study underway within the US government could end up being one of the more significant watersheds of the nuclear era. For some of the ideas reportedly under consideration could reduce America's nuclear arsenal to levels not seen since the 1950s. All of this would be squarely in keeping with President Obama's 2009 Prague speech, in which he committed the US to lead a step-by-step approach toward the ultimate goal of a nuclear weapons-free world. And, behind the political impetus to cut the numbers of nuclear weapons, there loom decisions on some huge – and very costly – projects to replace America's nuclear delivery systems. These financial issues may ultimately prove to be the most significant set of pressures in favour of deep nuclear cuts.

The Study is a mandated exercise, following the 2010 release of the Nuclear Posture Review (NPR), a periodic document that provides Presidential guidance to the Pentagon as to how nuclear weapons are to be used. Throughout the Cold War, each US administration's NPR added new missions and requirements to the nuclear forces of the US. Nuclear weapons had not only to deter the use of such weapons against the American homeland by the Soviet Union, but also to: 'extend' deterrence to US allies; deal with lesser threats from China; permit several 'tactical' options to make up for NATO's perceived conventional inferiority vis-à-vis the USSR (which opened up the thorny box of nuclear 'war fighting'); and manage a host of other contingencies. Such requirements – and those on the Soviet side – caused the global nuclear arsenal to grow to some 65,000 weapons at the height of the Cold War. America's strategic arsenal was spread across a 'triad' of land-based missiles, submarine-

based missiles and manned bomber aircraft, plus thousands more so-called 'tactical' nuclear weapons.

Since the end of the Cold War, both the US and Russia (which between them possess approximately 95 percent of the world's nuclear weapons) have significantly reduced their numbers of weapons. Today, there are reportedly some 20,500 nuclear weapons in the world, with the US and Russia having some 19,500 between them. The other 1,000 weapons are spread between the other seven nuclear-armed states (France, the UK, China, Israel, India, Pakistan and North Korea). France and China have some 300 and 240, respectively – although only about 40 of China's are capable of hitting the US. North Korea has fewer than 10 weapons, of which the reliability is questionable. Israel is widely regarded as having several hundred nuclear weapons, but does not admit to them.

As of this year, the US is reported to have close to 5,000 active nuclear weapons in its stockpile, of which 1,737 are counted as deployed strategic nuclear weapons under present arms control treaties. A further 3,500 weapons are retired and awaiting dismantlement. Under the terms of the most recent Strategic Arms Reduction Treaty (known as 'New START'), signed in 2010, the US and Russia have committed to reduce their deployed strategic weapons to 1,550 each – deployed in each case on up to 700 missiles or bombers – by 2018 (though the Treaty mandates no cuts to the reserve stockpiles, and does not mention tactical nuclear weapons).

There are, however, hints that Obama's NPR Implementation Study is considering far more drastic cuts. Speaking at a conference in Virginia in February 2012, Acting Defense Undersecretary for Policy James Miller (who has since been nominated by Obama for the Undersecretary position proper) stated that the US would be able to meet all of its defence needs and commitments with far lower numbers. Shortly thereafter, press leaks indicated that three sets of options are being explored as a possible basis for the next round of nuclear arms control talks with the Russians: 1,000 to 1,100 each; 700 to 800 each; or 300 to 400 strategic nuclear weapons each.

Predictably, the political right in the US was outraged when these numbers surfaced and were not disavowed by the administration. Everyone from Rush Limbaugh, to Liz Cheney of the right-wing think-tank Keep America Safe, to various Republican Senators, to commentators at Fox News lined up to condemn the idea as another example of the political left's misguided commitment to unilateral American disarmament in a dangerous world.

But none of the critics addressed the issue that should be at the core of considerations about how many nuclear weapons are required for America's security needs – to wit, what are these weapons supposed to do? A sensible discussion of numbers should follow from the answer to this pivotal question.

The 2010 Nuclear Posture Review was President Obama's first chance to put his stamp on the US nuclear arsenal. Obama made a significant – if only still incremental – change to the NPR issued by President George W. Bush in 2001. The Bush NPR and other policy statements following 9/11 had stated that US nuclear weapons could be used in response to non-nuclear attacks on the US or its allies – such as attacks with chemical weapons – and also opened the door to pre-emptive strikes against those whom the US believed were planning attacks. But the Obama NPR began a process of limiting US use of nuclear weapons to retaliation for attacks with nuclear weapons against the US and allies – though other uses of nuclear weapons were not completely precluded.

This dialling back of the purpose of America's nuclear arsenal opens the way to the need for far fewer nuclear weapons. If the purpose of America's nuclear arsenal is increasingly limited to deterring the use of nuclear weapons by other nuclear-armed states, then one can make do with far fewer of them – if the others agree to cut also. Gone is the need to maintain a vast

number of different types of nuclear weapons for such purposes as making America's commitment to extend deterrence to Europe appear credible – for with the demise of the USSR there is no military threat to Europe.

This logic is, of course, not accepted by US neoconservatives. For them, US nuclear superiority is critical to security. The more weapons the US has, the more secure it is. Ideally, on this argument, the US should accept no limitations, but should strive to be ahead of everyone. And yet the logic of this particular assertion has never been clear in strategic terms. It is akin to believing that, if a group of men stands in a puddle of gasoline up to their hips, with each man holding a packet of matches, then the one who has the most matches ought to somehow feel more secure than the others. President Reagan came to accept the futility of this line of thinking when he pushed for the abolition of US and Soviet Intermediate Range Nuclear Forces – the first time that an entire class of nuclear weapons was abolished – and insisted that strategic arms control with the Soviets be focussed on reducing weapons, rather than on capping increases (along the lines of the old Strategic Arms Limitation Treaties, or SALT). Nevertheless, the 'more is better' logic is symbolically powerful, and it endures on a political level. Though they today laud Reagan, it is forgotten that many neoconservatives were, at the time, deeply critical of his conversion on these issues.

Reagan's views are today championed by a growing movement in the US that argues that deep cuts in nuclear weapons, and their eventual abolition, are in the US national interest. This argument hinges on the proposition that the continued existence of nuclear weapons means that they will proliferate to others, and that there is, as a consequence, an increasing likelihood that they will be used. This is evidently profoundly not in the US interest, as the country may well be the eventual target. Thus, former statesmen like former Secretaries of State George Shultz and Henry Kissinger, former Defense Secretary William Perry and former Chair of the Senate Armed Services Committee Sam Nunn have together argued that steep nuclear cuts and eventual abolition are very much in the US national security interest – and that Washington should lead the way. These men are hardly pacifists, and the argument that they make is deeply entrenched in a hard-nosed, realist-inspired assessment of long-term US national interests.

Whatever the rationale for deep cuts, we can expect a political battle royal over the levels of cuts that are reportedly under consideration in the Implementation Study – especially the options for very deep cuts down to between 300 and 400 strategic weapons. At the same time, the impetus for deep cuts will be given a boost by the fact that the delivery systems for the US arsenal of strategic nuclear warheads – the missiles, submarines and bombers that carry the weapons – face obsolescence in the coming decades. Literally hundreds of billions of dollars will be required to re-equip these fleets, and such money will be hard to find in an era of fiscal austerity that could well last decades.

Each of these basing options for the US's strategic arsenal – the triad of land-based missiles, submarine-based missiles and bombers – has advantages and disadvantages. By spreading the arsenal across all three platforms, the objectives of survivability (it would be impossible to take out all of these platforms in a single pre-emptive strike) and the preservation of a broad range of war-fighting options could be advanced. Accepting the cost of developing and maintaining a triad of mutually reinforcing nuclear delivery systems may have made sense when the country faced an existential threat from an adversary that could wipe it out. Moreover, with the numbers of weapons in the tens of thousands, economies of scale were achievable across huge fleets of bombers, land-based missiles and submarines. However, if the number of weapons goes down to a few hundred, justifying the development of new, very small fleets of delivery systems will be difficult. The anticipated US budget pressures for the foreseeable future are such that consideration is being given in some quarters to doing away

with one leg of the triad altogether, while dramatically reducing the size of the remaining two legs.

Already, we are seeing evidence that these pressures are beginning to bite. The latest Pentagon budget has delayed the acquisition of the first of the next generation of ballistic missile-carrying submarines by at least two years in order to save money. The requested fleet of 12 of these submarines is expected to cost US \$350 billion to build and operate over its lifetime, though many believe that this figure will rise. Similar delays may soon be announced on work for the next generation of long-range nuclear bombers. This is not the same as outright cancellation of these programmes, but it is a sign that the budget for strategic nuclear weapons and delivery systems is not sacrosanct, and that economies will have to be found.

Interestingly, the delay in the submarine programme is having a knock-on effect for another nuclear weapons power – the UK. Although the UK's nuclear deterrent is supposedly 'independent,' the country has long relied on US technology as the basis of its own programme. Simply put, the UK cannot afford to develop entirely indigenous ballistic missile submarine capabilities. As that country's fleet of Trident-class submarines approaches its own obsolescence in the coming decades, it has been counting on piggy-backing on the US programme in order to keep itself in the nuclear game. And though the UK government has committed itself to replacing Trident, it may find it difficult to do so if the US programme is long-delayed or comes in hugely over cost. Meanwhile, Germany, among other NATO countries, is questioning why it remains necessary for the alliance to maintain tactical nuclear weapons in Europe. It is taking steps to close the bases that house tactical weapons, and is leaning toward not equipping the next generation of its fighters with the ability to drop these weapons.

In short, there are growing political and budgetary pressures to re-examine the role of nuclear weapons, and in particular how many such weapons are required to fulfill this role. Still, the US will only be able to make unilateral cuts up to a certain point. For both political and strategic reasons (including the need to avoid first-mover disadvantage), it will need to bring other nuclear powers along with it if really deep cuts are to be approved. First and foremost, this group must include the Russians. But eventually, as numbers of nuclear weapons come closer to zero, even the other nuclear powers must be brought along.

How likely is any of this? In Moscow, some quarters are wary of deep cuts for multiple reasons. First, with a declining pool of young men for service in the conventional Russian military, and with a deep desire to be seen as a great power, they are arguing that a certain number of nuclear weapons will assure great power status. Though such logic may be as tenuous as it is in the US, its resonance in today's Russian strategic thinking is not insignificant. Second, as the US moves to develop and deploy missile defence systems, the Russians worry that a diminished number of weapons will make it more difficult for them to be assured that they can penetrate US defences and deliver a deterrent – in short, go below a certain number of Russian weapons and US missile defences begin to look threatening, even if the US says that such defences are not 'aimed' at Russia. Third, and related to missile defence, even as it is talking about cutting nuclear weapons, the US is developing a new generation of conventional systems that are capable of long-range, stealthy, extremely accurate and devastating strikes anywhere in the world. Again, though the US maintains that these are not intended to strike Russia – but rather states like Iran – if Russia reduced its nuclear forces to relatively few weapons, there is a hypothetical fear that the US could stage a surprise attack against many of them with these new conventional systems, leaving Russia with a very small nuclear force – and indeed one that might not be able to penetrate US missile defences. Finally, Russia is not just deterring the US, but also China and potentially

others. Moscow will thus need assurances from other capitals that steep reductions in Russian strategic systems will be matched by countries beyond the US.

What of the Chinese? They too must have concerns about the eventual effect that US missile defences and long-range precision conventional weapons could have on their small deterrent force. They must also think of deterring nuclear use by both the US and Russia. In addition, of course, China must consider the potential for conflict with a nuclear-armed India – the two countries having fought wars in the past, and still having outstanding border disputes. That said, the Chinese have always had a more limited doctrine of deterrence – one that holds that the only purpose of nuclear weapons is to deter their use by others. The Chinese have never subscribed to concepts like 'extended deterrence,' meaning that they have always been satisfied with a relatively small nuclear force.

In South Asia, on top of deterring China, the Indians must be concerned about Pakistan, their other nuclear neighbour – and one that is widely regarded as increasingly unstable. Meanwhile, Pakistan is inferior to India in every military respect, and this inferiority is rapidly increasing. As a result, Pakistan is developing weapons and doctrines designed to introduce the risk of early resort to nuclear weapons in the event of a conventional conflict with India. Its logic – not entirely unlike that of NATO during the Cold War – is that the conventionally inferior party should rely on the threat of early use of nuclear weapons in order to deter the possibility of a conventional conflict that it cannot win. Unlike every other region of the world, the two South Asian nuclear powers are building up – not shrinking – their stockpiles of nuclear material as a hedge should the other side decide to build more weapons. Pakistan has therefore actively blocked efforts in multilateral disarmament talks aimed at beginning work on a treaty to ban the production of fissile material for nuclear weapons. For its part, India likely agrees with Pakistan's stand, but Delhi is keeping quiet, preferring instead to let Islamabad play the villain.

In the Middle East, Israel has the region's only nuclear stockpile. Israel has a subtly different vision of deterrence than that of all of the other nuclear powers. Whereas others justify their weapons on the basis of deterring other nuclear powers, Israel conceives of its deterrent as a shield behind which it can engage in military actions against others whenever it feels it must. Israel's conception of deterrence therefore requires that it be the region's sole nuclear-capable state – whereas classical deterrence posits two or more nuclear-armed states deterring each other. It follows that, when Israel argues that it is unwilling to be placed in a situation of having to deter a nuclear-capable Iran, it is – at least to some extent – saying that it refuses to accept the reality of an antagonistic regional state over which it does not retain an overwhelming and unilateral advantage. This is not the same thing as deterrence, properly understood.

Meanwhile, Iran's nuclear programme may be aimed at giving it the capability to build nuclear weapons should it ever find itself threatened by weapons of mass destruction, as it was during the Iran-Iraq war, when no one came to its aid. If this interpretation is true, then it suggests that Iran will adopt a minimal deterrent posture with a relatively small arsenal. Some believe, however, that Iran may also seek the ability to coerce others with its nuclear capability, which might require a larger force. In either scenario, if Iran does acquire a nuclear weapons capability, it will significantly complicate efforts to rid the Middle East of weapons of mass destruction.

All of this demonstrates that, at some point, US and Russian reductions in nuclear weapons will begin to bump up against a variety of other technical issues – including Russian and Chinese fears over the effectiveness of future US missile defence systems – as well as multiple sets of regional tensions. Actual abolition of nuclear weapons will certainly require solutions to these issues – from the Sino-Russian, Sino-Indian, and India-Pakistan relationships to Israel's perceived need to maintain a permanent nuclear hedge against all of

its regional neighbours, as well as Iran's perceived need to have at least the capability to build weapons if it is ever threatened with weapons of mass destruction.

Furthermore, the regime of safeguards according to which civilian nuclear materials are monitored in order to verify that they are not being diverted for weapons purposes will have to be strengthened significantly as the world moves toward zero. The verification provisions created in existing arms control treaties will also have to be buttressed considerably. The consequences of cheating become more significant as numbers approach zero. Beyond the questions of safeguards and verification, the entire edifice of the global non-proliferation system, which rests on the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), will likely have to be seriously rethought as and when the world moves toward zero. A much more intrusive but, at the same time, cooperative and collaborative approach to providing the world with civilian nuclear materials – and accounting for them – will be required.

The precise point at which, in the course of their nuclear reductions, the US and Russia would begin to bump up against the need to solve these wider problems is unknown. But the Nuclear Posture Review Implementation Study is likely to suggest that they could make nuclear reductions beyond the 19,500 nuclear weapons that they presently have between them before having to worry about these larger problems. Opponents will howl, and skeptics will disbelieve, but as the relentless pressure of the US budget crunch makes itself felt over the coming years, and just as the US begins to calculate the cost of replacing some expensive nuclear kit, deep cuts – and along with these a less nuclear world – may begin to look irresistible.

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