Reckless Nuclear Spending to Increase Nuclear Danger?
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The picture for all nine nuclear-armed states is grim. Today we are talking about one nuclear-armed state, the United States, which has long served as a pacesetter.

The United States is planning to replace and upgrade essentially its entire nuclear arsenal, delivery systems and warheads. The delivery systems include:
- bombers
- air-launched cruise missiles – from planes
- submarines; Trident missiles are being life-extended
- land-based missiles

From the Trump years, already a low-yield warhead has been deployed on submarine-launched missiles. And a submarine-launched cruise-missile is in development, which would replace a capability discontinued during the Obama years. Hopefully the Biden administration will withdraw the low-yield warheads and end development of the submarine-launched cruise missiles, but those decisions have yet to be made.

Over the next three decades, the replacement program will cost on the order of $2 trillion dollars including maintenance of existing and replaced forces. The US currently spends more than $30 billion annually on its delivery systems and warheads, with another roughly $20 billion spent on environmental management, health costs, and military and intelligence functions related to its nuclear forces.

This program is contrary to US obligations under NPT Article VI, which requires good faith negotiations on nuclear disarmament. 2020 was the 50th anniversary of the NPT; 50 years was certainly a sufficient period for fulfilment of this obligation if pursued in good faith. Yet the US is planning for at least several more decades of reliance on nuclear arms; time horizons reach into the second half of this century. Moreover, Article VI requires negotiations on cessation of the nuclear arms race at an early date. In certain respects, US plans definitely qualify as nuclear arms racing, notably with respect to the planned air-launched cruise missile.

The legal obligation to disarm is not the only relevant legal element. The US is bound, and recognizes it is bound, by the law of armed conflict, international humanitarian law. In short, nuclear arms cannot be used in compliance with that law, or with human rights law.
That means the US is relying for the indefinite future upon weapons that must not be used from a legal standpoint or any standpoint.

Let me talk about some – not all – elements of the program to replace the entire US nuclear arsenal.

**Air-launched cruise missile – Long-Range Standoff Capability**
The US already has ALCMs. But the planned air-launched cruise missile will be stealthier, more accurate, longer range, and deployed if the USAF has its way in large numbers, in the hundreds, with 1000 to be produced. And it would be deployed on a new stealth bomber, the B-21. The ALCM can penetrate air defenses while bombers may very well not be able to overcome them. This is a war-fighting weapon, which can be seen as a first-strike capability. It is especially relevant in Asia since US land-based missiles would fly over Russia and thus likely not be used. This system deserves more attention than it is getting. It is currently in development; production is planned for 2026. The acquisition cost is on the order of $11 billion.

**New land-based ballistic missile**
The new Intercontinental Ballistic Missile (ICBM), currently dubbed Ground-Based Strategic Deterrent, would cost more than $250 billion over its lifetime at least, including a $100 billion acquisition cost. It would contribute to the need for production of plutonium pits for its enhanced warhead, the W-87-1; more than 80 such pits per year are planned by 2030. Land-based missiles present a fixed target; they are thus highly vulnerable, inviting a Russian counter-force strike. If early warning signals indicate such an attack is underway, there is pressure to use or lose the missiles. ICBMs thus increase the chance of accidental nuclear war. They are also perceived as first-strike weapons. ICBMs are not necessary to preserve an option to respond in kind to a nuclear attack; submarine-launched ballistic missiles and bombers suffice for that.

ICBMs should therefore be eliminated, unilaterally or through negotiations. The existing ICBMs, the Minuteman III, also can be life-extended through the middle of the century if deemed necessary. Undertaking their replacement is a definitive signal that the US has no intention of giving up nuclear weapons for many decades to come.

**Sea-launched systems**
The replacement cost for submarines, with 12 to be fielded, is estimated at $128 billion. Trident Submarine-Launched Ballistic Missiles (SLBMs) are undergoing life-extension. Its W76-1 warhead has been made much more accurate; it is now a counterforce weapon. A new warhead, the W-93, is planned for deployment by 2040, at an estimated cost of $15 billion.

I have already mentioned the low-yield warhead deployed on SLBMs by the Trump administration. The Biden administration should soon decide to withdraw those warheads
from deployment. Deployment of an around five-kiloton warhead – about a third of the size of the Hiroshima and Nagasaki bombs - on a submarine-launched missile is characterized as enabling a limited response to a limited Russian first use. However, any acquisition of a capability perceived as more usable amounts to a lowering of the nuclear threshold. And the US already has low-yield capabilities. Also to be noted: the use of the term “low-yield” to describe this weapon obscures the fact that explosion of the warhead would have extremely destructive effects. If used in an urban area, it could kill many tens of thousands of people, not including fallout effects.

Regarding the planned submarine-launched cruise missile, even if you are a supporter of so-called deterrence, it is simply a redundant capability, as the Obama administration recognized. The Biden administration and Congress should end its development in the next fiscal year, if not sooner.

Conclusion
There are destabilizing aspects of US plans to replace its nuclear arsenal, notably with respect to the new ALCM. Also quite destabilizing and detrimental to nuclear disarmament is US continued pursuit of missile defenses. But the most damning aspect of the plans is the intention to rely on nuclear forces for the indefinite future.

It should be said that from the Russian and Chinese point of view, just as or more concerning is US pursuit of non-nuclear capabilities indicating a strategy of fighting and winning a non-nuclear war. Such capabilities include intermediate-range missiles which apparently will be conventionally armed; hypersonic missiles which again may be conventionally armed; precision-strike munitions; cyber war capabilities; and more. In the scenario of a non-nuclear armed conflict, US nuclear weapons would serve to deter an enemy from resorting to nuclear weapons - deterrence in wartime as well as peacetime. US non-nuclear capabilities might also be used to disable an enemy’s nuclear forces. Obviously this is an extremely risky scenario, fraught with potential for escalation to use of nuclear weapons.

Why do I raise this? It is because we have to avoid losing sight of the overall picture. Production and deployment of particular nuclear weapons systems need to be prevented, and negotiations on elimination of nuclear arms commenced. To succeed, we also have to work on maintaining peaceful relations among major powers in accordance with basic requirements of the UN Charter, and on limiting non-nuclear as well as nuclear forces, as called for by Article 26 of the Charter.