

## **Is the U.S. Ballistic Missile Defense Program driving a New Nuclear Arms Race with Russia and China?**

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On 1 March, President Putin, when he announced five new types of nuclear-weapon delivery vehicles, said it was in response to the developing U.S. global missile defense system. There has been no similar speech from President Xi but China has been building up the number of its nuclear warheads on long-range ballistic missiles that can reach the United States, including on ICBMs with multiple warheads. Many analysts believe that this is in part at least due to concern about U.S. missile defenses.

In some ways these are over-reactions. U.S. strategic ballistic-missile-defense (BMD) systems focus on interception outside the atmosphere and, for 50 years, we have known that such interceptors are easy to deceive with light-weight penetration aids. The Russian and Chinese militaries do worst-case analysis, however, just as the U.S. did 50 years ago when Russia first deployed 64 missile interceptors around Moscow. In addition to penetration aids, just in case, the U.S. deployed multiple-warheads on its strategic missiles and targeted more than 100 nuclear warheads on the Moscow system’s radars.

How can we deal with this new situation? Russia has decided to deploy boost-glide systems on some of its ICBMs and develop long-range, high-speed nuclear-powered intercontinental cruise missiles and torpedoes. But we should not give up on arms control.

I would note for starters that, although it is 16 years since President G.W. Bush took the United States out of the ABM Treaty, the U.S. still has only 44 strategic interceptors and all but four are located on one site in Alaska, although it is not the site we selected in the ABM Treaty.

Secondly, in 1997, Russia and the United States agreed that theater missile defense (TMD) interceptors with speeds at burnout less than 3 kilometers per second were not a major concern for strategic ballistic missiles. Thus far, the U.S. has not deployed any TMD interceptors faster than this. However, in 2020, the U.S. plans to start deploying on its destroyers and at several Aegis Ashore sites the Standard Missile Block IIA interceptor, which is reported to have a burnout speed of 4.5 km/sec. The number of these interceptors could mount into the hundreds by 2030.

The U.S. Congress has forgotten the important things it once knew about BMD:

1. Exo-atmospheric interception is easily counter-measured
2. Strategic defenses can provoke an offense-defense arms race.

A group of us is trying to reeducate them with the hope that we can reintroduce arms-control thinking into BMD policy making.