



## The W93 Warhead

The W93 is a new nuclear warhead intended for deployment on U.S. ballistic missile submarines by 2040 at an [estimated preliminary total cost](#) of more than \$15 billion in Department of Energy (DOE)/ National Nuclear Security Administration (NNSA) and Department of Defense (DOD) funds. Many questions surround the W93, particularly on its status as the first completely new warhead in decades, as well as its design, schedule and justification.

### Design Questions

Since the introduction of the W88 more than three decades ago, the NNSA has categorized all warhead upgrades as variants of existing models. The labeling of this new Navy warhead as the W93 indicates a largely new design that is not a variant of any existing warhead. Beyond quietly stating that the W93 will be based on [“previously nuclear-tested designs”](#) and citing supposed [“perils and vulnerabilities”](#) in the existing arsenal, officials have given few details about the design and requirements of the W93.

In fact, when pressed in a February 2020 House Armed Services Committee (HASC) hearing if the W93 is a new weapon, the head of U.S. STRATCOM [refused to answer](#) “yes” or “no,” instead calling it a “new program of record” and stating that the NNSA and DOD must “first to start the program before... answer[ing] some of these questions.” Subsequently, a spokesperson for HASC [said](#) in March 2020 that “Congressional leadership has yet to receive the military requirement or justification for another new nuclear warhead.”

The DOD has also [stated](#) that the W93 will not increase the size of the overall arsenal but has yet to clarify if it will replace either or both the W76 and W88, the two Submarine Launched Ballistic Missile (SLBM) warheads currently in the U.S. nuclear arsenal. The W76 just underwent a service life extension and comes in two variants, the W76-1 and the [“low-yield”](#) W76-2, while the W88 is currently being modernized. Both warheads will continue to be reliable for decades.

### Costs and Schedule Concerns

The NNSA first referred to a “Next Navy Warhead” in FY2020 budget documents. However, preliminary funding for the program was not expected until FY2023. Nonetheless, the Trump administration requested in FY2021, and Congress approved authorization and appropriations for, \$53 million in DOE/NNSA funds and \$32 million in DOD/Navy funds to begin work on the new SLBM warhead and its new MK7 reentry vehicle. To date, no clear justification for moving two years ahead of schedule has been given by DOD or DOE officials.

Partial explanation for the accelerated timeline has been attributed to the fact that the United Kingdom is pursuing a parallel warhead replacement program based on the design of W93, as the British arsenal uses [U.S.-manufactured](#) Trident II D5 SLBMs. However, U.K. officials have not expressed the need to begin work on this program in 2021 vs. 2023. HASC Chairman Adam Smith [commented](#) in December 2020 that the W93 “may arguably be a little bit ahead of need on that... Do we need the money right now? I think the U.K. is pushing a lot of that. Do they need it right now?”

Further, the Government Accountability Office has repeatedly expressed concern over the NNSA’s inability to manage the costs and schedules of modernization, [reporting](#) to HASC in March 2020 that the NNSA should consider “potentially deferring the start of or canceling specific modernization programs” in order to bring its [modernization plans](#) into actual alignment with future budgets. As the NNSA is already functioning at [full capacity](#) with its considerable modernization workload that has encountered delays and cost overruns even in its earliest stages ([including](#) with the existing W88 SLBM warhead life extension program), advancing on this new warhead ahead of schedule is likely to only further exacerbate these issues.