

***“The W80-4 life extension program is vital to the bomber leg of the nuclear triad.”***

- Dr. Charles P. Verdon, Deputy Administrator for Defense Programs

## Overview

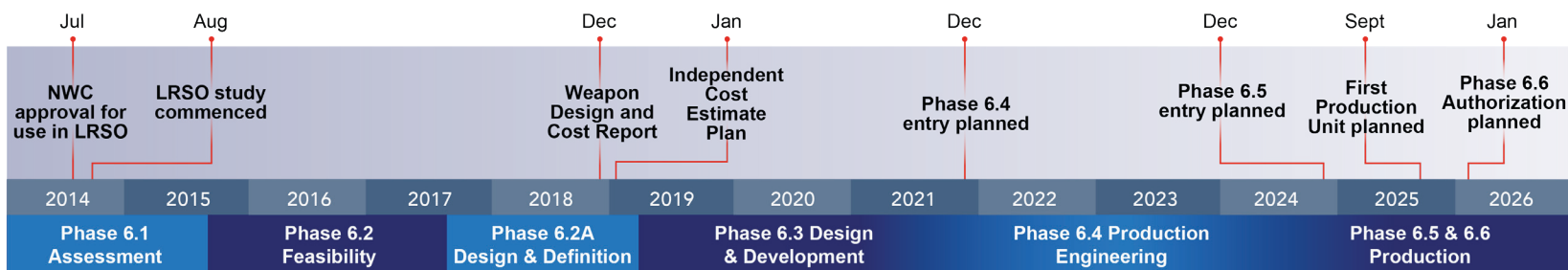
In close coordination with the Department of Defense, NNSA is extending the life of the W80-1 warhead through the W80-4 Life Extension Program (LEP) for use in the U.S. Air Force’s Long Range Standoff (LRSO) cruise missile. Together, the W80-4 and LRSO will help ensure the long-term effectiveness of the bomber leg of the Nation’s nuclear triad. The W80-4 LEP will also extend the warhead’s service life while enhancing its safety, security, and reliability.



Key design requirements of the W80-4, which extends the life of the W80-1 warhead, include use of the existing insensitive high explosive design, incorporation of modern components and safety features, extensive use of non-nuclear component technology developed for other LEPs, and parallel engineering with the U.S. Air Force on the warhead-missile interface. The program is currently in Phase 6.3, Development Engineering, commencing development, specifications, and design release of the W80-4 warhead. Entrance into Phase 6.3 synchronized alignment with the LRSO program, supporting U.S. Air Force timelines for achieving initial operational capability. The W80-4 LEP is expected to be completed by fiscal year 2031.

The LRSO, coupled with the W80-4 warhead, will play an important role in the Nation’s security by deterring adversaries and assuring allies and partners.

## Timeline



## Enterprise Effort

**Lawrence Livermore National Laboratory** is leading nuclear design for the W80-4 LEP, while **Sandia National Laboratories - California** is leading the non-nuclear design. Sites across the Nuclear Security Enterprise are participating in the development and production of the W80-4 warhead.



The current air-launched cruise missile, introduced in 1982