NNSA W76-1 Life Extension Program

National Nuclear Security Administration

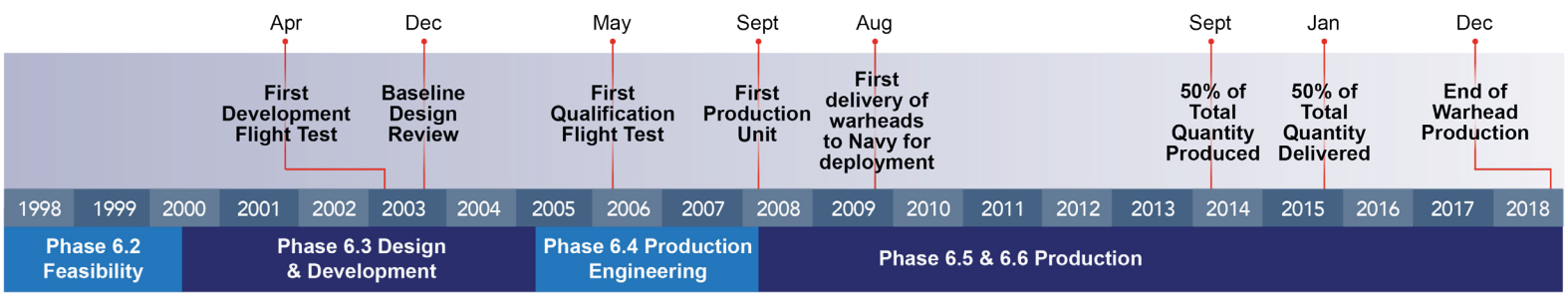
"The W76-1 warhead plays a critical role in allowing the United States to maintain a credible nuclear deterrent for 21st century threats."

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

Overview

The W76-1 is a refurbished W76-0 warhead, which is a submarine-launched ballistic missile system that was first introduced into the stockpile for the Navy in 1978. The W76-1 Life Extension Program extends the originally designed warhead service life of 20 years to 60 years. The W76-1 continues to meet all missions and capabilities of the original W76-0 warhead and does not provide new military capabilities. NNSA completed refurbished warhead production at the Pantex Plant in December 2018.

Timeline



Enterprise Effort

NNSA's **Los Alamos National Laboratory** and **Sandia National Laboratories** are the design agencies for the refurbished W76-1 warhead. The W76-1 Life Extension Program also requires the capabilities of scientists, engineers, technicians, and support personnel from the **Pantex Plant, Y-12 National Security Complex, Savannah River Site, Kansas City National Security Campus, Lawrence Livermore National Laboratory,** and **Nevada National Security Site.**

Ohio-class nuclear submarines carry W76-1 warheads

Surveillance

Trident D5 Missile test flight launch

W76-1 surveillance activities disassemble warheads returned from submarines to identify potential aging issues in the warheads and their components that could affect reliability, safety, security, and performance. Some surveillance units are built into Joint Test Assemblies to conduct flight tests jointly with the Navy. Other units are built into test bed assemblies to conduct system-level ground tests. Ultimately, the data from these units is used to provide an annual assessment assuring the President that the warhead remains safe, secure, and reliable.