B61-12 LIFE EXTENSION PROGRAM

The B61-12 Life Extension Program (LEP) will replace the B61-3, 4 and 7 gravity bombs and will be lower yield, more accurate, and compatible with newer aircraft.

OVERVIEW

The B61 nuclear gravity bomb, deployed from U.S. Air Force and North Atlantic Treaty Organization (NATO) bases, has been in service for over 50 years. Numerous modifications have been made to improve the B61's safety, security, and reliability since the first B61 entered service in 1968, and four B61 variants remain in the stockpile: the 3, 4, 7, and 11. The B61 is undergoing a life extension to continue to assure its safety, security, and effectiveness. The B61-12 LEP is refurbishing, reusing, or replacing all of the bomb's nuclear and non-nuclear components to extend the service life by at least 20 years. This LEP will address all age-related issues of the bomb, and enhance its reliability, field maintenance, safety, and use control. With these upgrades and the addition of a U.S. Air Force supplied Tailkit Assembly, the B61-12 LEP will consolidate and replace three of the B61 variants in the current stockpile: 3, 4, and 7. When fielded, the B61-12 will balance greater accuracy provided by the modern tailkit with a substantial reduction in yield, with no overall change in military characteristics. The B61-12 LEP is critical to sustaining the Nation's air delivered nuclear deterrent capability. It will be air-delivered in either ballistic gravity or guided drop modes and is being certified for delivery on current strategic aircraft (B-2A) and dual capable aircraft (F-15E, F-16C/D & MLU, PA-200) as well as future aircraft platforms (F-35, B-21, F/A-18F).

Developmental flight test from an F15-E

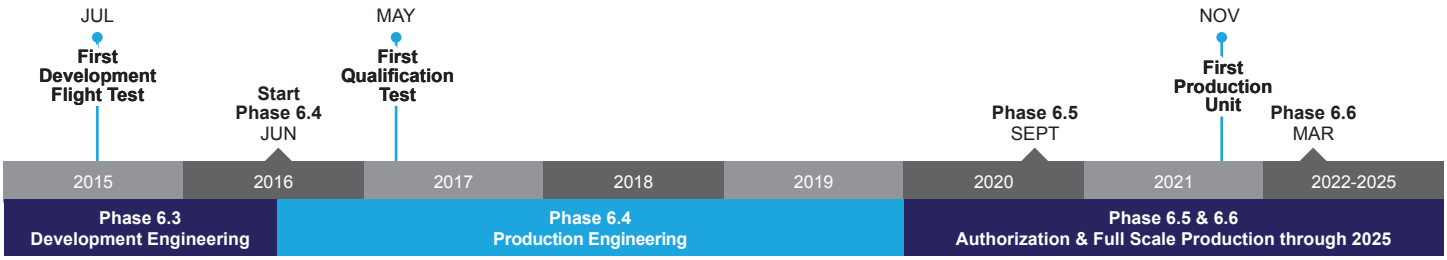
ACCOMPLISHMENTS AND CURRENT STATUS

In Novermber 2021, the B61-12 LEP achieved system-level First Production Unit (FPU). The program entered Phase 6.5, First Production, in September 2020 and completed the Final Design Review and Acceptance Group with the Air Force in October 2020.


An F-15E conducts a vibration fly-around test

FUTURE MILESTONES

- Program completion is planned for FY 2026.



Timeline in calendar years

NNSA NUCLEAR SECURITY ENTERPRISE ROLES

Sandia National Laboratories and **Los Alamos National Laboratory** are the design and engineering labs for the B61-12 LEP. In addition, Sandia is responsible for production of custom electronics, including neutron generators. Los Alamos is responsible for production of detonators and other classified components.

Additional production activities are performed at the following sites:

- **Kansas City National Security Campus** is responsible for producing 39 major non-nuclear component assemblies including firing, safing, and use control components.
- **Y-12 National Security Complex** is responsible for the remanufacture of components made of uranium and other materials.
- **Savannah River Site** is responsible for testing, evaluating, and replenishing the tritium system.
- **Pantex Plant** is responsible for producing high explosives, requalifying the B61 pit, and final assembly of the complete B61-12 bomb for delivery to the U.S. Air Force.