

U.S. Nuclear Weapons in Europe

Nuclear weapons owned by the United States have been deployed in Europe since the mid-1950s, when President Dwight D. Eisenhower authorized their storage at allied North Atlantic Treaty Organization (NATO) bases on the continent for use against the Soviet Union. Though NATO officially declares itself a “[nuclear alliance](#),” it does not own any nuclear weapons. Instead, a small number of bombs are reportedly kept under U.S. Air Force guard at six airbases in five European countries, ready to be delivered by respective national fighter planes.

Historically, the United States has deployed both nuclear bombs and nuclear-armed missiles to allied European states, including Greece and the United Kingdom, but since the end of the Cold War the total arsenal has been reduced to air-launched tactical, or nonstrategic nuclear bombs. Today, under NATO’s nuclear sharing program, the remaining bombs complement the alliance’s collective security deterrent against threats, principally Russia. Alongside NATO member the United Kingdom’s arsenal, U.S. nuclear weapons in Europe are consistent with Article V of the [North Atlantic Treaty](#). Fellow member France, who re-joined the alliance in 2009, does not commit its own nuclear arsenal to the alliance’s extended deterrent.

Beyond the alliance’s three nuclear powers, five others participate in U.S. nuclear sharing: Belgium, Germany, Italy, the Netherlands and Turkey. Seven more participate in the Support of Nuclear Operations With Conventional Air Tactics (SNOWCAT), providing assistance in nuclear missions through conventional air support: Czech Republic, Denmark, Greece, Hungary, Norway, Poland and Romania. All 30 members of the alliance excluding France are also a part of the [Nuclear Planning Group](#), which discusses policy issues. The North Atlantic Council remains NATO’s ultimate authority, and member states retain control over their own nuclear forces.

How Many?

The United States and its NATO allies do not disclose exact figures for its European-deployed stockpiles. In 2021, it is estimated that there are [100](#) U.S.-owned nuclear weapons stored in five NATO member states across six bases: Kleine Brogel in Belgium, Büchel Air Base in Germany, Aviano and Ghedi Air Bases in Italy, Volkel Air Base in the Netherlands, and Incirlik in Turkey. The weapons are not armed or deployed on aircraft; they are instead kept in WS3 underground vaults in national airbases, and the Permissive Action Link (PAL) codes used to arm them remain in American hands. To be used, the bombs would be loaded onto dual-capable NATO-designated fighters. Each country is in the process of [modernizing](#) its nuclear-capable fighters to either the F-35A, the F-18 Super Hornet, or the Eurofighter Typhoon.

The total number of nuclear weapons based in Europe reached an all-time peak of 7,300 during the height of Cold War tensions in 1971. The 98% reduction to today’s stockpile reflects the end of Cold War hostilities as well as shifting American defense priorities. The weapons are an important symbol of the U.S.’ longstanding security commitments to Europe, but questions have been raised about the [desire of European countries to continue hosting WMDs](#).

Air

U.S. nuclear weapons in Europe consist entirely of B61-3 and -4 gravity bombs deployed by dual-capable aircraft. Now undergoing modernization under the NNSA’s B61-12 Life Extension Plan, updated warheads are scheduled for deployment by [2024](#) alongside delivery vehicle modernization programs of host nations. This B61-12 variant will include a new tail kit to improve both efficiency and accuracy. It will also allow variable yield capability, with a yield ranging from 0.3 KT to 170 KT and allow for both strategic and tactical use.