

U.S. Non-strategic Nuclear Weapons

While no consensus definition exists, non-strategic nuclear weapons, otherwise known as *tactical nuclear weapons*, are generally low-yield nuclear weapons designed for use on the battlefield. They can also <u>be defined</u> as weapons not covered by strategic arms control treaties, such as New START, which encompass nuclear weapons delivered via intercontinental ballistic missiles (ICBMs), submarine-launched ballistic missiles (SLBMs), or heavy bombers. Nuclear mines, artillery, torpedoes and some gravity bombs are considered tactical nuclear weapons.

Since the peak of the Cold War, both the U.S. and Russia have significantly cut their arsenals of tactical and strategic nuclear weapons. Nonetheless, the United States possesses hundreds of tactical nuclear weapons in its stockpile and Russia possesses an estimated 1,816 non-strategic nuclear weapons, though Russia's modernization of its non-strategic nuclear arsenal continues.

U.S. Tactical Nuclear Arsenal

The current U.S. tactical nuclear arsenal is comprised of approximately 230 <u>B61 gravity bombs</u> in two versions, the B61-3 and B61-4. Dual-capable NATO-designated F-15, F-16, and PA-200 Tornado fighter planes are the current systems capable of delivering the B-61, while the <u>F-35A</u> is slated to become nuclear-certified for future B61 missions. Most NATO allies active in the nuclear sharing mission are in the process of modernizing their air forces to include the F-35A.

The U.S. Air Force deploys an estimated 100 B61s at six NATO air bases in five countries. The remaining nuclear weapons are stored in the U.S. for possible overseas deployment.

Country	Base	Nuclear Weapons
Turkey	Incirlik Air Base	20
Belgium	Kleine Brogel Air Base	15
Netherlands	Volkel Air Base	15
Germany	Büchel Air Base	15
Italy	Aviano & Ghedi Torre Air Base	35

Source: Hans Kristensen and Matt Korda/Federation of American Scientists

While the tactical nuclear arsenal could once be deployed on NATO-designated aircraft within minutes, today the readiness level is <u>measured in months</u>.

Costs and Upgrades

The United States is spending <u>around \$1.5 trillion</u> to modernize and maintain <u>its entire nuclear arsenal</u> over the next 30 years. Included in this plan is the consolidation of multiple versions of the B61 bomb into the B61-12 bomb, a newly designed version intended for both strategic and tactical delivery. The B61-12 will have variable yield capability – ranging from <u>98 percent smaller</u> to three times greater than the bomb dropped on Hiroshima – and a new tail kit to increase accuracy. The B61-12 entered full-scale production in the fall of 2022 and U.S. C-17A aircraft were <u>cleared</u> to transport the new bombs to Europe in January 2023.



In the fall of 2023, the Biden administration announced plans for yet another variation of the B61 gravity bomb, the B61-13. This weapon is planned to have a similar earth-penetrating capability to the B83-1 megaton bomb and would use the warhead currently on the B61-7 with maximum yield of 360 kilotons (compared to a 50 kiloton maximum yield of the B61-12). The Biden administration has/claimed that development of the B61-13 will not increase the overall warheads, but rather come at the expense of the B61-12. It continues to be unclear how many of these weapons are planned, though it is possible that the number will be small. The B61-13 would be carried by the same bombers and fighters as the B61-12, though the current plan foresees use of the B61-13 on bombers only, possibly so as not to signal deployment of a higher yield nuclear weapon in Europe.