



Planes such as the B-2 Spirit (pictured) and the B-52 Stratofortress compose the U.S. strategic bomber force and can carry warheads deep into enemy air space without support aircraft. The stealthy B-2 is made of graphite composite (instead of aluminum) to avoid radar detection. (Photo: Open Source)

Why the Nuclear Triad?

A diverse combination of weapons systems ensures the security of America and its allies.

Just as expert economists recommend a diversified portfolio of stocks, bonds, and other investments to ensure economic security, defense experts recommend that the nation's nuclear deterrent be diversified to ensure U.S. national security—and the security of America's allies.

During the Cold War, America's strategic nuclear defense evolved into a diversified “nuclear triad,” or three separate and distinct methods of delivering warheads to designated targets:

Air: bombs and air-launched cruise missiles deployed from strategic bombers

Land: intercontinental ballistic missiles (ICBMs) dispersed in underground silos across five states

Sea: submarine-launched ballistic missiles (SLBMs) deployed from Trident nuclear submarines

Each method has advantages and disadvantages, and having three unique, widely dispersed nuclear weapons systems eliminates the risk that an enemy could destroy the entire U.S. deterrent in a first strike. (See “Smells Like Alert,” page 18.)

The U.S. nuclear triad also guarantees to the nation, its allies, and its adversaries that the United States will always have the capability to retaliate and destroy any attacking nation—thus deterring any nation from attacking America or its allies. ✦

Right: At any given moment, 90 missileers presiding over 400-plus nuclear-warhead-armed Minutemen III missiles are on alert in 45 launch control centers at three missile alert facilities spread out across Colorado, Montana, Nebraska, North Dakota, and Wyoming. Here, an unarmed Minuteman III ICBM is test-launched from Vandenberg Air Force Base in California. (Photo: U.S. Air Force)

Trident (Ohio-class) submarines are designed for stealth and are virtually undetectable. They carry up to 24 Trident D5 nuclear missiles armed with either W88 or W76 nuclear warheads (both designed by Los Alamos). Here, the USS Alabama returns to Washington state after a deterrent patrol. (Photo: U.S. Navy)

