An aerial photograph of Whiteman Air Force Base in Missouri. The base is a large complex of buildings, parking lots, and runways, situated in a flat, open landscape. In the foreground, the nose and cockpit of a B-2 Spirit stealth bomber are visible, flying over the airfield. The bomber is dark blue and has a distinctive wing shape. The background shows various base buildings, including a large hangar and several smaller structures, along with parking areas filled with cars and trucks. The overall scene is captured from a high angle, looking down at the base and the bomber.

Spirits of Stealth

The B-2 bombers operate worldwide from their home at Whiteman AFB, Mo.

Photography by Ted Carlson

One of only 20 B-2 Spirit stealth bombers, Spirit of Kitty Hawk, cruises over the flight line at Whiteman AFB, Mo. Whiteman is home to the 509th Bomb Wing, the only B-2 wing in the Air Force. The base, situated in an ocean of farmland, received the first combat-ready B-2—Spirit of Missouri—in December 1993, on the 90th anniversary of the Wright brothers' first flight.



From a flight line about 70 miles from Kansas City, Mo., USAF's B-2 bombers have flown record-setting missions to Serbia, Afghanistan, and elsewhere. The B-2's mission has evolved from Cold War nuclear strike to providing global conventional firepower from the heartland of the US, employing stealth and surprise. The nation's sole penetrating bomber, the B-2 was first tested in combat in 1999, when the type destroyed 33 percent of all Serbian targets in the first eight weeks of Operation Allied Force. The stealth bomber played a central role in Operation Enduring Freedom, Operation Iraqi Freedom, and recently in Libya, where it took part in the opening phase of Operation Odyssey Dawn. **111** Spirit of Kitty Hawk flies over Missouri. **121** Maintainers (l-r) A1C Sean Hegstead, SSgt. Chad Burke, and TSgt. Christopher Therrian work on the 393rd



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Bomb Squadron's Spirit of Pennsylvania. Full of sensitive electronics, avionics, and stealth materials, the B-2 fleet is a maintenance-intensive platform. **131** L-r: SSgt. Brock Schuld, SSgt. Athena Keller, and SSgt. Antonio Washington work on a weapons loading trainer at Whiteman. Washington is adjusting a GBU-31 Joint Direct Attack Munition. **141** Spirit of Indiana banks away over Missouri at sunset.



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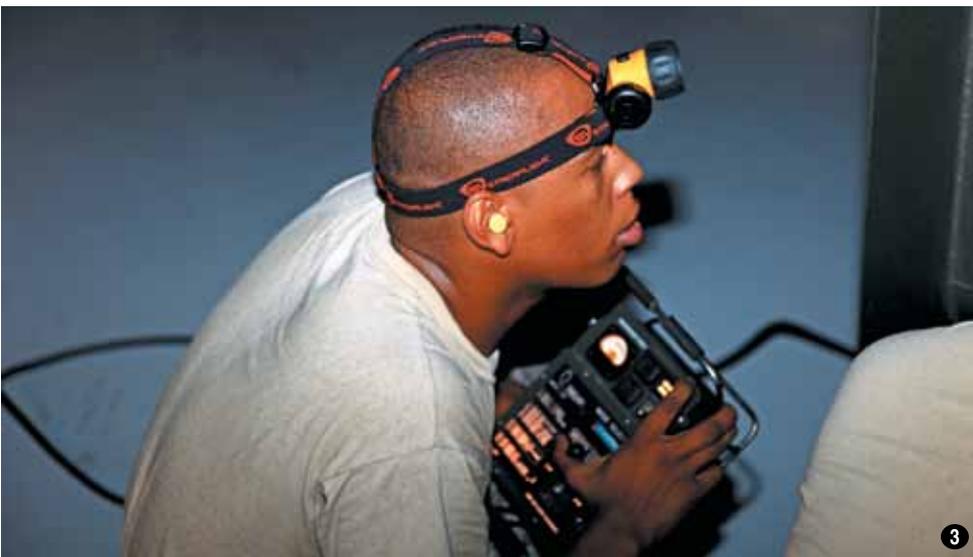
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11 Spirit of Indiana overflies the countryside. The B-2 can carry a wide range of conventional and nuclear weapons in its two bomb bays, with a capacity of 40,000 pounds of munitions internally. *12* Among the arrows in the B-2's quiver: the AGM-158 Joint Air-to-Surface Standoff Missile, a stealthy cruise missile. *13* Weapons airmen, such as SrA. Jacques Walden, shown here in the weapons loading trainer, must master the loading, unloading, and handling of ordnance ranging from gravity bombs to cruise missiles. *14* The B-2 can also employ the AGM-154 Joint Standoff Weapon, shown here. The stealthy glide bomb can carry a unitary warhead or submunitions.

Formerly a Cold War ICBM base, Whiteman began a massive conversion to host the B-2 mission starting in 1988. USAF plans to keep the B-2 flying into the 2050s. **1** Spirit of Indiana passes Whiteman. The B-2's size, flying wing shape, and internal weapons carriage enhance its range to reach any target on Earth with one aerial refueling. **2** Spirit of Indiana. **3** A1C Clayton Walton of the 509th Aircraft Maintenance Squadron prepares Spirit of Arizona for a sortie. **4** A1C Keena Johnson of Whiteman's 509th Security Forces Squadron secures the ramp near a B-2. The B-2's dual conventional and nuclear strike mission—as well as its super-sensitive stealth coatings and technologies—demands maintenance and security meeting rigorous Air Force Global Strike Command standards. When it became clear the B-2 fleet would be small—but bear huge responsibilities—the Air Force began naming the bombers after states, much as the Navy names capital ships.





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11 Pilots Capt. Matthew Burrows (l) and 394th Combat Training Squadron boss Lt. Col. Ron Bodine (right), leave Spirit of Arizona parked on the Whiteman flight line. The 394th CTS was activated in 1996 at Whiteman as the training squadron for all B-2 aircrews. **12** SrA. Ashley Hussein, 509th Operations Support Squadron, cleans aircrew helmets in the life support shop. Due to their extra-long-duration missions, attention to life support gear is paramount to success. **13** Spirit of Arizona taxis past another B-2 parked in one of the hangars on the ramp at Whiteman. After the 2008 crash of a B-2 on Guam, only 20 airframes remain in the fleet. **14** Spirit of Kitty Hawk, of the 13th Bomb Squadron, taxis on the ramp.

111 Bodine (l) and Burrows go over paperwork before a mission on Spirit of Indiana. **121** Spirit of Indiana opens its weapons bay doors during a sortie. Bomb bays are opened and closed rapidly in real combat, to minimize the nonstealthy exposure of the weapon bays. **131** Spirit of Indiana shows off the many special coatings, seals, gap fillers, and other treatments that make the B-2 so hard to detect. The aircraft also employs electromagnetic techniques to hide from radar. One Northrop Grumman engineer quipped that while previous aircraft were designed by aeronautical engineers, "the B-2 was designed by electrical engineers." **141** Walden works on the weapons loading trainer at Whiteman. The bomber's already-impressive portfolio of weapons expanded last year, with completion of testing on the Massive Ordnance Penetrator (MOP) a 30,000-pound conventional bomb designed to reach hardened, deeply buried targets. The MOP was declared ready for operational use with the B-2 in November 2011.





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1|1 The B-2's sinister, bird-like shape inspired one of several unofficial nicknames: "The Beak." *12|* SrA. John M. Hodge with Spirit of Kitty Hawk in the background. *13|* Spirit of Kitty Hawk climbs out. The B-2's shape presents some flying challenges; it must be coaxed to land when it encounters ground effect, and its bow wave tends to push away a tanker during refueling. Pilots have mastered techniques to overcome these quirks. *14|* SrA. Jannel Kennedy (l) and A1C Brian Serafin work the Whiteman tower. The B-2 is not Whiteman's only resident. Companion T-38 jet trainers, Air Force Reserve Command A-10s, and Army National Guard AH-64 Apache attack helicopters also operate in Whiteman's busy airspace. B-2s, however, will rule the base for 40 years to come. ■