The Smithsonian and the *Enola Gay*
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The Airplane

The B-29 Aircraft
In the early years of World War II, the Army Air Forces had two heavy bombers, the B-17 Flying Fortress and the B-24 Liberator. Work had begun in 1940 on a "very heavy bomber" project, the outcome of which would be the B-29 Superfortress.

The B-29, which began flight tests in September 1942, brought new advantages in speed, range, and bomb load. It also had advanced propulsion, avionics, numerous innovations, such as pressurized crew compartments.

For self defense, it had a dozen .50 cal. machine guns in five turrets, plus a 20 mm cannon in the tail. The machine guns, except for two in the tail turret, were fired by remote control.

It was manufactured in four locations: Boeing plants in Renton, Wash., and Wichita, Kan., the Bell plant at Marietta, Ga., and the Martin plant in Omaha, Neb.

The B-29 was the only airplane with the range and other capabilities to conduct heavy bomber operations against the Japanese homeland. It entered service in April 1944 in India, but came into its own when the Mariana Islands (Guam, Saipan, and Tinian)—1300 miles southeast of Tokyo—were captured in August 1944 and the Army Air Forces gained bases there.

From the Marianas, B-29s flew 16-hour round trip missions against Japan. The B–29 is most famous as the aircraft that delivered the atomic bombs at Hiroshima and Nagasaki. After World War II, the B-29 continued in service, flying its last combat mission— reconnaissance over North Korea—in July 1953.

Advantages of the Superfortress

	Wing span	Range (miles)	Max speed (mph)	Cruising Speed (mph)	Bomb Load (lbs)
B-17	103'10"	1,850	300	170	6,000
B-24	110'0"	2850	303	175	8,000
B-29	141'3"	3,700	357	220	20,000

Data is for purposes of comparison. Performance figures varied with conditions, such as altitude, weight, aircraft configuration, etc.

Source: US Air Force Museum

In 1944, three B-29s made emergency landings at Vladivostok and were "interned" by the Russians. In 1947, the Russians began flying the Tu-4 bomber, a reverse-engineered dead ringer for the B-29. (For more on the **Soviet copy** of the B-29.)

The Enola Gay
The Martin assembly line in Omaha produced a total of 15 "Silverplate" B-29s, specially modified for the atomic mission. The armor plating and all gun turrets except for the tail position were stripped out,

following specifications developed by Col. Paul Tibbets, commander of the 509th Composite Group, which would fly the missions. This made the aircraft 7,000 pounds lighter.

On May 9, 1945, Tibbets hand picked the B-29 that would be the Enola Gay on the production line at Omaha with the advice of plant foremen. He sent co-pilot Bob Lewis to the factory to pick up the aircraft.

Prior to Hiroshima mission, the aircraft was unnamed, bearing the number 82. Tibbets decided it should have a name for the historic mission and had Enola Gay painted on the nose, naming the airplane after his mother, Enola Gay Tibbets. On the assumption that the Japanese had noticed B-29s with 509th markings dropping special practice bombs, Tibbets ordered a disguise for the Enola Gay and escort aircraft on the Hiroshima mission. He had a big black letter R (the insignia of another unit on Tinian, the 313th Bomb Wing) painted on the tail, replacing the 509th's distinctive arrow in a circle. Also for security, Tibbets changed the call sign from "Victor" to "Dimples." The Enola Gay flew the mission as "Dimples Eight Two." *(Boeing B-29 Enola Gay on Tinian n the Marianas Islands—US Air Force photo)*

In addition to the Hiroshima mission on Aug. 6, the Enola Gay flew as weather plane on the Nagasaki mission on Aug. 9, with Capt. George Marquardt as aircraft commander.

The Air Force gave the *Enola Gay* to the Smithsonian Institution in 1949. (**NASM Chronology** of the *Enola Gay*)

Bockscar

The second atomic bomb was dropped on Nagasaki Aug. 9, 1945, by B-29 number 44-27297, named *Bockscar*. Like the *Enola Gay*, it was built under license by the Glenn L. Martin Co. at Omaha.

The aircraft commander for the mission was Maj. Charles W. Sweeney, commander of the 393rd Bombardment Squadron, the operational element of the 509th Composite Group.

Bockscar was named for its usual pilot, Capt. Fred C. Bock, but Sweeney's own airplane, *The Great Artiste,* was still configured to measure the effects of an atomic blast—the mission it had flown at Hiroshima with Sweeney at the controls—so Sweeney and Bock exchanged planes. *The Great Artiste,* flown by Bock, was the instrument plane for Nagasaki.

Bockscar was put into storage in 1946 and remained there until 1961, when it was flown to Wright Patterson AFB, Ohio, for display at the National Museum of the US Air Force. Visitors can still see it there today. *(B-29 Bockscar nose art added after Nagasaki bombing mission—US Air Force photo)*

Visiting the Enola Gay
The Enola Gay, fully restored, is on display at the National Air and Space Museum's Steven F. Udvar-Hazy Center at Chantilly, Va.

In 1971, the Confederate Air Force—since renamed the **Commemorative Air Force** —rescued and restored a B-29 that had been used as a gunnery target and abandoned in the California desert. The aircraft, named *Fifi,* was flown regularly in air shows. It has been piloted by a number of distinguished airmen, among them Paul W. Tibbets.

Further Reading

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TIBBETS, Paul W. *Return of the Enola Gay.* Mid Coast Marketing, 1998.

WHEELER, Keith. *Bombers Over Japan.* Time-Life Books, 1982.