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ABSTRACT

This text accompanied the Smithsonian Institution's display, "Enola Gay," at the National Air and Space Museum commemorating the end of World War II and the role played by the B-29 aircraft, Enola Gay, that on August 6, 1945 carried the atomic bomb that destroyed Hiroshima, Japan. The atomic bombing of Hiroshima and Nagasaki led to the surrender of Japan on August 14, 1945. Remarks by the Smithsonian's Secretary, I. Michael Heyman, at the beginning of the script address the controversy generated by the first plans and script for the exhibition that "provoked intense criticism from World War II veterans and others who felt the original planned exhibit portrayed the United States as the aggressor and the Japanese as victims and reflected unfavorably on the valor and courage of American veterans." The Museum eventually replaced the original planned exhibit with a simpler display in which the focus was on the restoration of the Enola Gay by the Smithsonian, explanatory material on the aircraft, ancillary topics related to the use of the first atomic bomb, and a video about the Enola Gay's crew. Each section of the text is related to a display in the exhibition. [This material offers the educator material to stimulate discussion, analysis, and critical thinking in world history, modern history, or U.S. history courses.] (EH)

# The "Enola Gay".

The Smithsonian Institution
Washington, D.C.

1995

TEG:000-L1

**THE "ENOLA GAY"**

This display commemorates the end of World War II and the role of the B-29 Enola Gay in the atomic mission that destroyed Hiroshima and, along with the atomic bombing of Nagasaki, led to the surrender of Japan on August 14, 1945.

The National Air and Space Museum originally planned a much larger exhibition, which concentrated attention on the devastation caused by the atomic bombs and on differing interpretations of the history surrounding President Truman's decision to drop them. That planned exhibition provoked intense criticism from World War II veterans and others, who stated that it portrayed the United States as the aggressor and the Japanese as victims and reflected unfavorably on the valor and courage of American veterans. The Museum changed its plan substantially, but the criticism persisted and led to my decision to replace that exhibition with a simpler one. In a statement I issued at that time I said the following:

> I have concluded that we made a basic error in attempting to couple an historical treatment of the use of the atomic weapons with the 50th

anniversary commemoration of the end of the war. Exhibitions have many purposes, equally worthwhile. But we need to know which of many goals is paramount, and not to confuse them....

...the new exhibition should be a much simpler one, essentially a display, permitting the Enola Gay and its crew to speak for themselves. The focal point of the display would be the Enola Gay. Along with the plane would be a video about its crew. It is particularly important in this commemorative year that veterans and other Americans have the opportunity to see the restored portion of the fuselage of the Enola Gay.

The exhibition you are entering does what I intended, with a few changes. We have added material on the Smithsonian's restoration of the Enola Gay and some explanatory material on the B-29 aircraft and the 509th Composite Group, which was led by then Col. Paul Tibbets, who piloted the Enola Gay on the Hiroshima mission. We also have a section at the end where we ask for your reactions to the exhibition.

We welcome your comments.

I. Michael Heyman

Secretary

Smithsonian Institution

#

TEG:010-L1
Bomber silhouettes

**U.S. WORLD WAR II BOMBERS**

Large numbers of U.S. bombers were flown by Allied crews against enemy forces in Europe and the Pacific during World War II. The high-flying, long-distance B-29 Superfortress took the war to Japan.

#

TEG:010-L2-IL2
Bomber silhouette IDs

B-10

B-17

B-18

B-24

B-25

B-26

B-29

#

TEG:010-L3-IL3
B-17/B-29 range-to-target comparison graphic

The B-17 Flying Fortress and B-24 Liberator were nearly ideal for bombing enemy targets in Europe, where missions seldom exceeded 1,760 kilometers (1,100 miles) round trip. But the distances to targets in the Pacific theater were much greater. B-29s there routinely flew missions nearly three times farther--4,800 kilometers (3,000 miles) round trip. B-17s and B-24s also served in the Pacific theater, but the B-29, with its longer range, was the primary heavy bomber used against Japanese home targets.

#

TEG:100-L1
Main title

**THE BOEING B-29 SUPERFORTRESS**

#

TEG:100-L2
Main text

As Hitler's armies threatened Europe, U.S. military planners called for the development of a fast, long-range, high-altitude bomber. The answer to that need would be the Boeing B-29 Superfortress, an aircraft that could carry a large bomb load higher, farther, and faster than any previous bomber.

The B-29 was the most technologically complex mass-production aircraft of World War II. It also required the largest commitment of resources to a single military aircraft up to that time. Rushed through development and production, the bombers were quickly sent overseas without service testing to be used against the Japanese.

Fifteen B-29s were specially modified and assigned to the 509th Composite Group for the top-secret mission of dropping atomic bombs. One of them, the Enola Gay, would drop the first atomic bomb on Hiroshima, Japan.

#

TEG:110-L1

**DEVELOPING AND PRODUCING THE B-29**

In February 1940, the U.S. Army Air Corps opened a design competition for a new heavy bomber. Boeing, Lockheed, Douglas, and Consolidated were asked to submit entries, and Boeing's design for the B-29 won.

Development proceeded so quickly that the design team was conducting structural tests of the component parts even as the experimental aircraft was still being built. The XB-29, the first of some 4,000 Superfortresses, flew on September 21, 1942. A technological marvel, the B-29 had aerodynamically efficient wings, flush-riveted skin, and tight-fitting engine cowlings to reduce air resistance; remotely controlled machine gun turrets; and heated, pressurized crew compartments for high-altitude flight.

Production had to be widely dispersed to meet the urgent demand for the giant bombers. The first production models rolled off the assembly lines between July and September 1943.

#

TEG:110-L2-P2
photograph 1A-11849
(NASM)

Boeing built the first production B-29s in Wichita, Kansas. Others were manufactured by Boeing in Seattle and Renton, Washington, as well as by Bell Aircraft in Marietta, Georgia, and Glenn L. Martin in Omaha, Nebraska. The Enola Gay was one of the 536 B-29s built by Martin.

#

TEG:110-L3

**STANDARD B-29 SPECIFICATIONS**

| | |
|---|---|
| Wingspan: | 43 m (141 ft, 2 in) |
| Length: | 30 m (99 ft) |
| Height: | 8.5 m (27 ft, 9 in) |
| Weight, empty: | 31,816 kg (70,140 lb) |
| Weight, gross: | 61,463 kg (135,500 lb) with 5,443 kg (12,000 lb) bomb load |
| Top speed: | 603 km/h (375 mph) at 7,620 m (25,000 ft) |
| Engines: | 4 Wright R-3350 "Cyclone" 18-cylinder radials of 2,200 hp (at takeoff) |
| Manufacturer: | Boeing Aircraft Company |

#

TEG:110-L4-P4
photograph 1A-11878
(NASM)

Recruiting workers to build B-29s was a major challenge, since the worker pool had already been drained by other war-related industries and the military. At the Boeing plant in Wichita, 39 percent of the workers were women. Here, a crew of men and women performs the tedious work of checking every rivet and seam in the forward pressurized crew area of a B-29.

#

TEG:110-L5-P5
photograph 1A-11929
(NASM)

More than 8,000 engineering drawings were needed to mate the thousands of component parts of the B-29. The major assemblies and parts came from factories in nearly every state. This staged photo was taken to show component manufacturers where their contributions fit into the overall structure.

#

TEG:110-L6-P6
photograph 1A-11836 (NASM) (NASM) [will require cropping]

Designed for high-altitude flight, the B-29 had pressurized crew compartments, the first successful large-scale use of this technology. The control cabin and gunners' compartment were connected by a tunnel over the bomb bays. The tail gunner's tiny, isolated turret was also pressurized.

#

TEG:110-L7-P7
photograph 3A-1086 (USAF)

The B-29's narrow wings allowed it to fly at high speeds and high altitudes, but required landing speeds that were too fast. Boeing solved this problem by adapting the Fowler wing flap to the B-29. Extending the flaps from the rear edges of the wings, as on this China-based B-29, enabled the airplane to land at a slower speed. In the foreground is a typical bomb load.

#

TEG:120-L1

**THE SUPERFORTRESS ENTERS SERVICE**

The United States initially deployed B-29s to the China-Burma-India theater for operations against Japanese targets in Indochina, China, and eventually Japan. In April 1944, the Twentieth Air Force was activated to fly the B-29s.

As Allied victories in the Pacific mounted in 1944 and early 1945, the Army Air Forces moved the B-29 fleet from China to newly captured Guam, Tinian, and Saipan in the Marianas, and Iwo Jima, sites of some of the fiercest battles of the war.

From the Marianas the bombers could strike at Japan. Iwo Jima, between the Marianas and Japan, served as a haven for damaged bombers flying the long, 4,800-kilometer (3,000-mile) round-trip missions over enemy-held waters.

#

TEG:120-L2-P2
photograph 1A-12008
(NASM)

Members of the 44th Mobile Training Unit (B-29) prepare to conduct training at Sioux City Army Air Field, Iowa. Such "Specialized Mobile Training Teams," each with its own trailer and B-29, helped train new Superfortress crews at bases in the United States.

#

TEG:120-L3-P3
photograph 3A-970 (USAF)

This is the first photo released to the public that showed the sophisticated defensive gun turrets on the B-29.

#

TEG:120-L4-P4
photograph 3A-976 (USAF)

It didn't take long for crews to personalize their planes. This China-based B-29 was named Eddie Allen, after the Boeing test pilot who died in the crash of the second XB-29 test aircraft on February 18, 1943.

#

TEG:120-L5-P5
photograph 3A-978 (USAF)

Appropriately named Rush Order, this 768th Bomb Squadron B-29 took part in a mission over Japan only 15 days after coming off the Seattle production line.

#

TEG:120-L6-P6
photograph 3A-38478
(USAF)

Bomber bases on the small Marianas Islands soon became crowded with aircraft. This view is from the cockpit of a B-29 on Saipan.

#

TEG:120-L7-P7
photo 3A-38403 (USAF)

Crews came to respect the B-29 for its rugged construction. This 881st Bomb Squadron, 500th Bomb Group crew survived the harrowing return flight of a 17-hour mission, flying through thunderstorms and darkness with two engines out on the same side. The aircraft was cut through by a runaway propeller during the crash landing.

#

TEG:130-L1

**THE "ENOLA GAY," A SPECIAL B-29**

As the bombing raids against Japan intensified through the winter of 1944, a new bombardment unit, the 509th Composite Group, began assembling at a remote air field at Wendover, Utah.

The 15 Martin-built B-29s assigned to the 509th were specially tailored to the unique group's highly secret mission: to drop atomic bombs on Japan. The airplanes had only tail gun positions; the other four remotely controlled gun turrets were removed to save weight and improve airspeed. They also had new engine fuel-injection systems, Curtiss-Electric reversible-pitch propellers, and faster-acting pneumatic bomb bay doors. One of these modified B-29s, serial number 44-86292, would be named Enola Gay.

#

TEG:130-L2-P2
photograph 3A-38595
(USAF)

The Enola Gay returning from its mission of August 6, 1945, on which it dropped an atomic bomb on Hiroshima, Japan.

#

TEG:130-L3

**"ENOLA GAY" CHRONOLOGY**

#

TEG:130-L3a

**May 18, 1945.** Aircraft 44-86292 delivered to U.S. Army Air Forces at Glenn L. Martin Aircraft Factory, Omaha, Nebraska.

#

TEG:130-L3b

**June 14, 1945.** Aircraft ferried to Wendover Army Air Field, Utah, by pilot-in-command Capt. Robert A. Lewis.

#

TEG:130-L3c

**June 27, 1945.** Aircraft and 11-man crew depart Wendover for South Pacific.

#

TEG:130-L3d

**July 6, 1945.** Aircraft arrives at Guam, where additional modifications to the bomb bay are made, then flies on to Tinian, where it is reunited with other elements of the 509th Composite Group.

#

TEG:130-L3e

**July 12, 1945.** Aircraft and crew resume training.

#

TEG:130-L3f

**August 5, 1945.** Aircraft 44-86292 formally named Enola Gay after Col. Paul Tibbets' mother. Ground crew works feverishly to prepare it for the next day's mission.

#

TEG:130-L3g

**August 6, 1945.** Enola Gay departs at 2:45 a.m. for Hiroshima, Japan. The atomic bomb is released over Hiroshima at 8:15 a.m., local time. The aircraft returns to Tinian at 2:58 p.m., 12 hours and 13 minutes after takeoff.

#

TEG:130-L3ga

**August 9, 1945.** Flight report and operations order indicate that Enola Gay flies as weather plane on the Nagasaki atomic mission.

#

TEG:130-L3h

**September 2, 1945.** Japan formally surrenders aboard the battleship U.S.S. Missouri in Tokyo Bay.

#

TEG:130-L3i

**November 6, 1945.** Enola Gay departs Tinian for Roswell Army Air Field, New Mexico, via Mather Army Air Field, California, where most of the 509th is based after the Japanese surrender.

#

TEG:130-L3j

**April 29, 1946.** Enola Gay is flown to Kwajalein Island by Colonel Tibbets for "Operation Crossroads" nuclear tests.

#

TEG:130-L3k

**July 24, 1946.** Enola Gay, bearing "Operation Crossroads" special insignia, is flown to Davis-Monthan Army Air Field, Arizona, for storage.

#

TEG:130-L3l

**July 3, 1949.** Enola Gay is retrieved from storage and flown to Orchard Place Army Air Field (now O'Hare International Airport) near Chicago by Colonel Tibbets.

#

TEG:130-L3m

**July 3, 1949.** Enola Gay is formally accepted by the Smithsonian Institution for the National Air Museum.

#

TEG:130-L3n

**January 12, 1952.** Enola Gay is flown to Pyote Air Force Base, Texas, for temporary storage.

#

TEG:130-L3o

**December 2, 1953.** Enola Gay is flown from Pyote Air Force Base, Texas, to Andrews Air Force Base, Maryland, via Maxwell Air Force Base, Alabama, and placed in storage.

#

TEG:130-L3p

**August 10, 1960.** Workers begin disassembling Enola Gay.

#

TEG:130-L3q

**July 21, 1961.** Enola Gay is moved overland to National Air Museum's storage facility in Suitland, Maryland, near Washington, D.C.

#

TEG:130-L3r

**December 5, 1984.** National Air and Space Museum crews begin restoring Enola Gay.

#

TEG:130-L4-P4
photo (original in Curatorial Files)

The Enola Gay shortly after entering storage at the National Air Museum's facility in Suitland, Maryland. It still bears markings from the "Operation Crossroads" nuclear tests of 1946.

#

TEG:130-L5-P5
photo

Restoration specialists at the National Air and Space Museum's Paul E. Garber Preservation, Restoration, and Storage Facility in Suitland, Maryland, apply their highly specialized skills in restoring the Enola Gay's forward fuselage.

#

TEG:200-L1
Main title

**THE RESTORATION OF THE "ENOLA GAY"**

#

TEG:200-L2
Main text

The B-29 Enola Gay is the largest restoration project ever undertaken by the Museum. A two-person crew began working in the cockpit area in late 1984. Through 1994, 44,000 hours of staff time had been devoted to the project.

Unfortunately, the fully assembled aircraft is too large and heavy to be displayed in the Museum. So instead, several major components of the Enola Gay have been installed in this gallery: the vertical stabilizer, two engines, an aileron, propellers, and the forward fuselage, which contains the bomb bay. The rest of the aircraft is at the Museum's Paul E. Garber Preservation, Restoration, and Storage Facility in Suitland, Maryland, where restoration is nearing completion.

#

TEG:200-L3-IL3
Repeated with each diagram of B-29 and gallery layout.

This scale drawing shows a B-29 superimposed over an outline of the exhibition gallery in which you are located. It shows just how large the aircraft is--and why the entire Enola Gay cannot be displayed within the Museum.

#

TEG:210-L1

**WHAT IS AIRCRAFT RESTORATION?**

Aircraft restoration has three objectives:

- To retain the aircraft's originality and authenticity,
- To save it for years to come,
- To prepare it for exhibition.

The Museum preserves its collections "in perpetuity"--not just for now, but forever. Restoration specialists work to save aircraft and the technology represented by them for future generations of visitors and researchers. That's why they also preserve the thousands of parts that visitors may never see. Restorers duplicate the methods and materials used by the original aircraft maker whenever they can.

#

TEG:210-L2-P2
NASM photo
95-2278-20

Curators, restorers, conservators, and scientists work together to set priorities for object treatment and to prepare restoration guidelines.

#

TEG:210-L3-P3
NASM photo
95-2279-16

Museum staff rely on archival materials, such as technical manuals and drawings, for guidance during restoration.

#

TEG:210-L4-P4
NASM photo
88-6887-12

The restorers clean and reuse original parts whenever possible and repair damaged or degraded ones. If a part is missing or in very poor condition, they substitute or make a new part, always noting that it is not original to the aircraft. For example, the atomic bomb rack, shown here, was fabricated by the restoration staff.

#

TEG:210-L5-P5
NASM photo
95-2276-10

Components are disassembled for cleaning and treatment. Restorers make sketches, take photographs, and use video cameras to record complex disassemblies, and they carefully tag the many parts for identification.

#

TEG:210-L6-P6
NASM photo
89-2223-53

The restorers use processes that are reversible and cause the least alteration to the original material. They fight corrosion, as shown here, with chemical baths. Preservatives and coatings can be removed, saving original paint and markings.

#

TEG:220-L1

Even though the Enola Gay was stored outdoors for many years, its overall condition was good. Nonetheless, restoring it has been a monumental task. From 1984 to 1988, Museum staff logged over 13,000 hours restoring the forward fuselage alone. By comparison, the Wright brothers 1903 Flyer required 2,319 hours to restore, and a World War I French SPAD XIII fighter required 8,435 hours.

#

TEG:220-L2

[LABEL DELETED]

#

TEG:220-L3-P3
Garber staff photo
95-2480

Each component of the Enola Gay was first cleaned thoroughly to rid it of dirt and debris. This wing section had been home to many birds and small animals over the years.

#

TEG:220-L4-P4
NASM photo
89-20006-32

Both fuselage sections, along with a "Little Boy" bomb casing, were on display in the Building 10 restoration hangar at the Garber Facility. It took two people 11,793 hours to restore the aft section of the fuselage.

#

TEG:220-L5-P5
NASM photo
89-8851-10

Only a few items were missing from the cockpit. It has been restored completely, including all the instruments, the Norden bombsight, and the crew stations.

#

TEG:220-L6-S6
Aileron

**FABRIC-COVERED AILERON**

To save weight, engineers used fabric skin on the B-29's ailerons, elevators, and rudder. The grade A cotton, similar in texture to a sheet, was woven to exacting specifications of thread count and strength.

For the B-29, the fabric was sewn by hand and machine, held down by strips of sheet metal and small screws, and finally "doped," or painted, to shrink it drum tight. Aluminum powder, added to the coating, protected the fabric and gave it its silver color. The stenciled code numbers indicate how, when, and by whom the Enola Gay's aileron was last recovered.

#

TEG:220-L7-P7
NASM Archives photo
3A-39730

Sheet metal workers repair the wing of a B-29 hit during a bombing mission. You can see where an aileron, like the one displayed above, would fit on the rear edge of the wing.

#

TEG:220-L8-S8
Fabric sample

**QUILTED INSULATION**

Sometimes parts of an aircraft, like this quilted insulation that lined the Enola Gay's fuselage, become too damaged to restore. Mice and birds shredded this material and used it to make nests. Using the old material as a pattern, restorers made new insulating blankets of polyester quilt batting.

#

TEG:220-L9-S9
Manual

**TECHNICAL MANUAL**

Aircraft ground crews used technical manuals to maintain the B-29; restorers used them to guide their work. These pages from the "Erection and Maintenance Instructions for Army Model B-29 Airplane" helped technicians to route oil lines.

#

TEG:220-L10-S10
Tubing

**UNLABELED TUBING**

Restorers often must be detectives. When workers disassembled the Enola Gay in the early 1960s, they attached identification tags to most of the parts. But this tubing's tag, along with its manufacturing number, is gone. However, the green and yellow stripes that remain identify the tubing as part of the oxygen tank refilling system. The maintenance manual and the precise shape of the tubing provide further clues to where the part will fit when the aircraft is reassembled.

#

TEG:220-L11-S11a,b
Astrocompasses

**ASTROCOMPASSES**

Astrocompasses were used by B-29 navigators to take readings of the sun's position. These two illustrate the effects of different storage conditions on Museum objects. The dirty, corroded one was found in the aft belly gun turret bay of the Enola Gay. It had been damaged by rainwater during the airplane's years of outdoor storage. The other astrocompass is from the Museum's study collection, where it was stored indoors in a carefully controlled environment.

#

TEG:220-L12-S12
Vertical stabilizer

**VERTICAL STABILIZER AND RUDDER**

The "circle R" marking was painted on this vertical stabilizer just before the Hiroshima mission. It was the insignia of the 6th Bombardment Group, which was stationed on the island of Tinian along with the Enola Gay's 509th Composite Group. The insignia was added to deceive the Japanese. The Enola Gay's markings were changed several times while it was in service.

#

TEG:220-L13a-IL13a
Illustration callout.

Arrowhead group marking was employed on arrival at Tinian and after V-J Day.

#

TEG:220-L13b-IL13b
Illustration callout.

Various other group and wing-tail markings were employed in action, July-August 1945.

#

TEG:230-L1

**RESTORING THE ENGINES**

The four engines from the Enola Gay, including the two displayed here, are not the ones installed at the factory. Like most military aircraft, B-29s saw many engine change-outs during their service life.

The restorers retained as much of the originality of the Enola Gay's engines as possible and ensured them a long life as museum objects. The engines were disassembled, inspected, and cleaned. Preservative coatings were applied in place of the operating oil and grease.

Could the engines be run again? Not unless the preservatives were removed and the operating fluids replaced. Most of the preservative coatings are reversible; they could be removed without harming the parts, but the engine would have to be completely disassembled to do so.

#

TEG:230-L2

[LABEL DELETED]

#

TEG:230-L3-P3
NASM Archives photo
Number 3A-39651

Used engines from B-29s accumulated at an air strip on Guam.

#

TEG:230-L4-P4
NASM photo
91-1086-29

Senior restoration specialist George Genotti restored two of the Enola Gay's four Wright R-3350 engines over several years, logging nearly 6,000 hours. The other two engines were restored by restoration staff and volunteers at the San Diego Aerospace Museum in California.

#

TEG:230-L5-S5
Restorer's logbook

**LOGBOOK**

Restoration technicians keep detailed daily records of their work. These logbook pages describe some of the disassembly of the Enola Gay's right inboard engine.

#

TEG:230-L6-S6
Engine on Whiting stand

**WRIGHT CYCLONE MODEL R-3350-57 ENGINE**

The Wright R-3350 radial engine was a key development critical to the success of the B-29. Early versions encountered lubrication and cooling problems and a fuel-air mixture problem that led to some destructive backfires and engine fires. Engineers later solved the problem by replacing the carburetors with a fuel-injection system.

Twin turbosuperchargers were installed in each engine to compress the thin air at high altitudes. The long nose case of the engine contained a gear reduction drive, which permitted the propeller to turn at slower speeds than the engine, producing greater efficiency.

#

TEG:230-L7

**WRIGHT CYCLONE MODEL R-3350-57 ENGINE**

| | |
|---|---|
| Type: | Reciprocating, air cooled, 2-row radial, 18-cylinder, geared drive, turbo-supercharged, fuel injected |
| Horsepower: | 1,639 kw (2,200 hp) at 2,800 rpm |
| Displacement: | 54.9 l (3,350 cu in) |
| Weight, dry: | 1,249 kg (2,757 lb) |
| Manufacturer: | Wright Aeronautical Corp., Paterson, N.J. |

#

TEG:230-L8-S8
Whiting stand

**THE ENGINE STAND**

Mechanics and restorers use engine stands to maneuver large, heavy powerplants as they work on them. Hand cranks rotate the engine and shift it from horizontal to vertical positions. The Smithsonian obtained this Whiting engine stand in 1956 and used it in the restoration of two of the Enola Gay's engines.

#

TEG:230-L9-S9
Whiting advertisement

During World War II the Whiting Corporation produced a line of heavy material-handling equipment, including B-29 engine stands.

#

TEG:230-L10-S10
Text, railing label

**ENGINE WITH COWLING**

Cowling panels streamlined the engine while guiding air around it for cooling. The engine and cowling could be removed and replaced separately or as a unit. Most cowling fasteners could be released quickly with a quarter turn, allowing mechanics easy access for maintenance.

#

TEG:230-L11-S11
Cowl flap

**ENGINE COWLING FLAP**

To ensure that the restored Enola Gay appears as it did during its service life, restorers used air-powered tools and several types of aircraft aluminum polish to achieve the proper shine.

#

TEG:230-L12
Video

[RESTORATION VIDEO LABEL TO BE PROVIDED]

#

TEG:230-L13-P13
Montage of NASM photos of the Enola Gay's restoration (no captions needed for individual photos)

**A TEAM EFFORT**

Restoring the Enola Gay required all the resources of the Paul E. Garber Preservation, Restoration, and Storage Facility.

#

TEG:230-L14

**THE "ENOLA GAY"**

**SOMETHING MORE THAN AN AIRPLANE**

It was an airplane like so many others that rolled off the wartime assembly lines by the thousands; an advanced bomber for its day, but only one among many of its breed. It never sported the distinctive nose art that adorned many airplanes. Not until the night before its most important mission did it even bear a name. Its pilot, honoring his mother, had painted on one side in bold letters, ENOLA GAY.

As it lifted off on that mission, it carried within it a weapon of unprecedented power that would bring both death and deliverance. When the airplane released its heavy load, banked sharply, and turned toward home, history turned with it. By the time its tires touched the earth again, the world had entered a new age.

Fifty years later it seems almost larger than life; as much an icon, now, as an airplane. After all this time it still evokes intense emotions, from gratitude to grief, its polished surface reflecting the myriad feelings and meanings and memories we bring before it.

#

TEG:240-L1-S1
Assembled prop

**PROPELLER**

The 509th's commander, Col. Paul W. Tibbets, had his B-29s equipped with Curtiss Electric C644S propellers. These propellers were reversible; that is, their blades could be turned to produce backward thrust, which could help brake an airplane in an emergency landing on a short runway. Because of the great demand for these propellers for other combat aircraft, most B-29s had other propellers instead.

#

TEG:240-L1a-IL1a
To go with outline behind prop.

The white outline shows at full scale a section of the wing and the engine behind the propeller. It is a stylized version of the blueprints used in the design of the B-29.

#

TEG:240-L2-P2
NASM photo
A39783

Most B-29s were outfitted with Hamilton Standard propellers, like this one being towed on its dolly at a base in the Marianas.

#

TEG:240-L3-P3
NASM photo
92-15074-26

The Enola Gay's propellers were restored as summer intern projects by college students enrolled in airframe and powerplant classes.

#

TEG:240-L4
Text

**PROPELLER PARTS**

The complexity of individual assemblies on the Enola Gay added to the challenge of restoration. A good example is this propeller. The propeller's spinner covered an electric motor and gearbox assembly. This unit extended into the hub and adjusted the blade pitch--the angle at which propeller blades meet the air. The pitch varied automatically to help keep the propeller turning at a constant speed. If power failed, the blades could be "feathered," or turned edgewise into the wind to reduce drag.

Each blade was secured into the hub by a large nut, bearings, and seals. A cuff, fitted around the base of each blade, helped force cooling air into the engine. Small tubes behind the hub carried de-icing fluid into each cuff.

#

TEG:240-L5-S5a-i
Individual prop parts

Spinner

Power unit

Motor, brake, and cover

Speed reducer assembly

Power gear assembly

Hub

Blade retaining hardware

Blade

Cuff

#

TEG:240-L6-S6
Radar antenna

**RADAR ANTENNA**

The AN/APQ-13 radar system was an early ground-imaging radar installed on most B-29s. Though the radar was intended for navigation, some crews used it for target location. The antenna was mounted dish downward as shown here, within the large blister "radome" on the underside of the aircraft between the bomb bay doors.

#

TEG:240-L7-P7a,b
NASM photos
95-2478
95-2479

This radar image of the coast of Florida near Eglin Army Air Field and the corresponding line drawing illustrate the resolution provided by this new tool.

#

TEG:240-L8-P8
NASM photo
92-9456-29A

The Enola Gay's radar unit was restored at the Garber Facility by a college intern.

#

TEG:240-L9-S9
Tail gunner's remote gunsight

**TAIL GUNNER'S REMOTE GUNSIGHT**

B-29 bombers bristled with defensive guns, earning them their nickname "Superfortress." New with the B-29 were remote gun turrets, all controlled by an innovative Central Fire Control System. The B-29 also had improved gunsights like this one, which permitted each turret to be controlled by either of two gunners. This gunsight is the same model as the one manned by the Enola Gay's tail gunner.

An early standard B-29 had a dozen .50 caliber machine guns and sometimes a 20-millimeter cannon. To obtain the best possible maneuverability and performance for his B-29s, Colonel Tibbets had much of the armor plating and all the guns except the .50 caliber tail guns removed.

#

TEG:240-L10-P10
color slide (NASM)

This view of the tail gunner's position shows the 509th Composite Group markings on the Enola Gay as they appeared after the Hiroshima mission.

#

TEG:250-L1

**B-29 MARKINGS**

Each numbered B-29 group and each squadron within the groups had its own official markings and colors, which were painted mainly on the aircraft tails. The distinctive markings allowed the aircraft to be readily identified while in the air, for maintenance purposes on the ground, and during rescue efforts if an aircraft went down.

#

TEG:250-L2-IL2

Official markings for B-29 bomber groups.

Courtesy of Kenn C. Rust, Twentieth Air Force Story

#

TEG:250-L3-P3
photo 3B-33026 (NASM)

The camouflage on Hump Happy Mammy was unusual; most B-29s had no overall paint scheme. The aircraft had completed 23 dangerous resupply flights over the Himalayas--"The Hump"--when this photo was taken.

#

TEG:250-L4-P4
photo 3A-2009 (NASM)

Other markings were decidedly unofficial. Many B-29s were given nicknames and "nose art," most often on the left side of the nose. Katie, shown here waiting an engine change at a primitive air field in China, was an exception.

#

TEG:250-L5-P5
photo 3A-38954 (NASM)

Some of the nose art seen on B-29s was quite imaginative. Here, the crew members of Waddy's Wagon, piloted by Capt. Walter R. "Waddy" Young, mimic their nose art caricatures. In the words of one historian, nose art "provided a glimpse of humanity in an inhuman situation."

#

TEG:250-L6-P6
photo 3A-4446 (NASM)

The large "circle R" on the tail of Look Homeward Angel, combined with the pirate insignia on the nose, identifies this aircraft as a genuine 6th Bomb Group B-29. The pirate signifies the group's previous assignment in the Caribbean. The "circle R" insignia was selected as the "deception" marking for the Enola Gay.

#

TEG:250-L7-P7
photo 3B-31531 (NASM)

For night missions against Japan, the under surfaces of many B-29s were painted black to make them less visible when illuminated by antiaircraft searchlights. This practice continued after the war, as on La Bohéme, which also bears the "Operation Crossroads" atomic test insignia.

#

TEG:250-L8

**THE MARKINGS OF THE "ENOLA GAY"**

The Enola Gay flew the Hiroshima mission with the "circle R" tail markings of the 6th Bombardment Group to confuse Japanese intelligence. The 509th's regular tail insignia was a forward-pointing horizontal arrow in a circle.

The crew names stenciled on both sides of the nose were added after the Hiroshima mission. They do not include all 12 men who were on the mission. Missing are Navy Capt. William S. Parsons, "Little Boy" project leader and bomb commander; Army Air Forces Lt. Morris R. Jeppson, Parson's assistant in arming the bomb; and Lt. Jacob W. Beser, the radar countermeasures officer. Not all ground crew members who worked on the Enola Gay were included either.

Contrary to many reports, the extreme upper tip of the vertical tail was not painted red during the Hiroshima mission, although strictly speaking it should have been, in keeping with the 6th Bomb Group "deception" markings.

#

TEG:250-L9-P9
photo 3A-38493 (NASM)

Genuine 509th Composite Group markings--the black arrow and circle, field number 82, and red vertical tail tip--were painted on the Enola Gay after the Hiroshima mission.

#

TEG:250-L10-P10
color slide (NASM)

This rare color photo of the Enola Gay, taken on Tinian sometime after the Hiroshima mission, shows the aircraft's full 509th Composite Group markings. The aircraft's name appears only on the left side of the nose.

#

TEG:260-L1-S1
Text
Forward fuselage

**FORWARD FUSELAGE**

The bomb bay occupies most of the forward fuselage. Bombs were mounted both ahead of and behind where the wings were connected to the fuselage. The yellow-green sway braces that held the "Little Boy" atomic bomb can be seen at the forward part of the bomb bay.

The large overhead tube that runs the length of the bomb bay is a pressurized crawl tunnel, which connects the cockpit with the aft crew compartment. Life rafts are stored in the aluminum compartments on either side of it. The large gray dome on the underside of the fuselage enclosed the radar antenna.

#

TEG:260-L1a
To go on panel in front of left-hand side of fuselage.

The interior of the Enola Gay cockpit is nearly all original. It contains the Norden bombsight used during the Hiroshima mission. The name Enola Gay was painted on the aircraft the night before the Hiroshima mission.

—

#

TEG:260-L2
specifications block

**BOEING B-29 SUPERFORTRESS "ENOLA GAY"**

| | |
|---|---|
| Wingspan: | 43 m (141 ft 3 in) |
| Length: | 30.2 m (99 ft) |
| Height: | 9 m (29 ft 7 in) |
| Weight, empty: | 31,400 kg (69,000 lb) |
| Weight, gross: | 62,500 kg (137,500 lb) |
| Top speed: | 586 km/h (364 mph) at 7,600 m (25,000 ft) |
| Armament: | Two .50 cal machine guns in tail |
| Engines: | Four Wright Cyclone R-3350-57, fuel-injected 18-cylinder radial engines, 2,200 hp each |
| Manufacturer: | Glenn L. Martin Co., Omaha, Nebr. (under license from Boeing Aircraft Co., Seattle, Wash.), 1944-45 |

#

TEG:260-L3-M3

A 1:48 scale model of the Enola Gay as it appeared on August 6, 1945.
Model built and donated by Peter Espada

#

TEG:260-L4-P4
Cockpit graphic
Railing label

**FORWARD COMPARTMENT**

This cutaway drawing from the "B-29 Maintenance and Familiarization Manual" shows the forward compartment of a standard Superfortress. The Norden bombsight, visible in the center of the Enola Gay's nose, is missing from the drawing. The bombsight was classified equipment; the bombardier removed it after every flight. Also visible in the drawing is the forward gun turret, which the Enola Gay lacked.

#

TEG:260-L5-S5

**ATOMIC BOMB CASING**

The bomb casing shown here was built after the war as a training version of the uranium bomb. Except for the absence of electronic firing circuitry and nuclear material, this bomb casing is very similar to the Hiroshima weapon. It contains no nuclear material and presents no radiation hazard.

#

TEG:260-L6
specifications block

**"LITTLE BOY" ATOMIC BOMB**

| | |
|---|---|
| Weight: | 4,045 kg (8,900 lb) |
| Diameter: | 0.7 m (2 ft 4 in) |
| Length: | 3.2 m (10 ft 6 in) |
| Yield: | Estimated as 12-20 kilotons (the equivalent of 12,000-20,000 tons of TNT) |
| Manufacturer: | Manhattan Project (1944-46), Atomic Energy Commission (1947-50) |

#

TEG:260-L7-S7

artifact: 2 arming plugs

**ARMING PLUGS**

The "Little Boy" bomb was armed in flight while the Enola Gay was en route to Hiroshima. Three green plugs that kept the firing circuitry inactive were removed from the bomb and replaced with red plugs that closed the circuits. These plugs were found in the Enola Gay by the restoration team. It is not known which bomb they came from.

#

TEG:260-L8
Text
Railing label

**IS THE "ENOLA GAY" RADIOACTIVE?**

The Enola Gay did not become radioactive from the bomb it dropped on Hiroshima. The only source of radiation on the aircraft comes from some of its instrument faces, which were painted with luminescent paint. This exhibit poses no health hazards to Museum visitors.

#

TEG:260-L9

**THE FUSELAGE INTERIOR**

The ladder-like structures on both sides of the fuselage at this end of the bomb bay are racks for conventional bombs. The yellow-green oval tanks contained supplemental oxygen to be used if the aircraft lost pressurization. The two long wooden boxes mounted overhead are something of a mystery. The restorers have not yet been able to find out what they were used for.

#

TEG:300-L1

**AUGUST 6, 1945**

The Enola Gay was a specially equipped and modified B-29. Its crew was chosen from the 509th Composite Group, commanded by Col. Paul Tibbets. He piloted the aircraft on its mission to drop an atomic bomb on Hiroshima on August 6, 1945. That bomb and the one dropped on Nagasaki three days later destroyed much of the two cities and caused many tens of thousands of deaths.

However, the use of the bombs led to the immediate surrender of Japan and made unnecessary the planned invasion of the Japanese home islands. Such an invasion, especially if undertaken for both main islands, would have led to very heavy casualties among American, Allied, and Japanese armed forces, and Japanese civilians. It was thought highly unlikely that Japan, while in a very weakened military condition, would have surrendered unconditionally without such an invasion.

#

TEG:300-L2-IL2
To go with crew cutout.

Crew members of the Enola Gay photographed shortly before the mission of August 6, 1945.

**Kneeling:**

1. Sgt. Joseph S. Stiborik, radar operator
2. S/Sgt. George R. Caron, tail gunner
3. Pfc. Richard H. Nelson, radio operator
4. Sgt. Robert H. Shumard, assistant engineer
5. S/Sgt. Wyatt E. Duzenbury, flight engineer

**Standing:**

6. Lt. Col. John Porter, ground maintenance officer
7. Capt. Theodore J. Van Kirk, navigator
8. Maj. Thomas W. Ferebee, bombardier
9. Col. Paul W. Tibbets, 509th Group CO and pilot
10. Capt. Robert A. Lewis, co-pilot
11. Lt. Jacob Beser, radar countermeasure officer

#

TEG:500-L0-title

**THE PACIFIC BOMBING CAMPAIGN**

#

TEG:500-L0-text
Main label for 500 unit.

The Twentieth Air Force was created in April 1944 to bomb targets in Japan, with the initial, primary goal of destroying the Japanese aircraft industry. The XX Bomber Command of the Twentieth Air Force soon began launching B-29 bombing raids against Japan and Japanese-held territories from bases in China and India. However, B-29 mechanical problems, complications in the resupply effort, high winds, and poor visibility over the targets compromised the effectiveness of the raids.

B-29s of the XXI Bomber Command began flying missions over Japan from bases in the Marianas Islands in November 1944. Imprecise and inefficient high-altitude attacks gave way to low-level night raids with fire bombs that destroyed about 40 percent of the total area of Tokyo, Nagoya, Osaka, Kawasaki, Kobe, and Yokahama. B-29s also mined Japan's sea lanes and harbors, bringing Japanese shipping to a virtual standstill.

By late June 1945, the bombing raids were no longer being seriously contested by enemy fighters. Special leaflets were

then dropped on Japanese cities three days before a bombing raid to warn civilians to evacuate. On August 6 and 9, B-29s of the 509th Composite Group dropped two atomic bombs, one on Hiroshima and one on Nagasaki. On August 14 about 800 B-29s attacked various targets in Japan. By day's end, President Truman announced the unconditional surrender of Japanese forces and the end of World War II.

#

TEG:500-L1
Note: Title moved to go with sections 510 and 520.

TEG:500-L2

**THE 509TH COMPOSITE GROUP**

#

To maintain the secrecy of the atomic bomb project, the Army Air Forces in 1944 created a new, uniquely organized, self-contained unit to carry out the bombings: the 509th Composite Group. The 393rd Bombardment Squadron, then completing its training, was chosen to comprise the core of the new group.

Lt. Col. Paul W. Tibbets was selected as the 509th's commander. Tibbets had extensive combat experience in Europe and Africa, had helped test the B-29, and was one of the most experienced B-29 pilots. He was also the only member of the 509th who was informed of the exact nature of the group's mission.

#

TEG:500-L3-P3
photo

Col. Paul W. Tibbets commanded the 509th and piloted the Enola Gay on the Hiroshima mission. He is wearing the Distinguished Service Cross awarded to him after returning from that mission.

#

TEG:500-L4-S4
artifact: mounted photos

Lt. Col. Tom Classen, commander of the 393rd and later deputy commander of the 509th, collected these photos of the 509th's B-29 crews.

Donated by Tom Classen

#

TEG:500-L5-S5
artifact: Ferebee's orders

Maj. Tom Ferebee of the 393rd Bomber Squadron received these orders to proceed to Wendover Army Air Field, Utah, where he would begin training with the 509th. Ferebee was the Enola Gay's bombardier on the Hiroshima mission. "Silverplate" was the Army Air Forces' code name for the 509th operation.

Lent by Tom Ferebee

#

TEG:500-L6-S6
artifact: 1 or 2 pictorial albums

These pictorial albums were compiled by members of the 509th while on Tinian just after the war ended.

Lent by Jean McClendon and Paul K. Carr

#

TEG:500-L7-S7

[LABEL DELETED]

#

TEG:500-L8

**509th Composite Group B-29s**

Fifteen B-29s of the 509th Composite Group were based on the island of Tinian in the Marianas. Not all of these had nicknames. For security purposes, some, like the Enola Gay, were not named until just before the atomic missions. To deceive Japanese intelligence if an aircraft was lost or captured, 509th B-29s on practice and orientation missions bore the special official insignia of other groups based on Tinian.

#

TEG:500-L9

**509th Composite Group B-29s**

| Field No. | Radio Call No. | Nickname |
|---|---|---|
| 71 | 44-27303 | Jabbitt III |
| 72 | 44-27302 | Top Secret |
| 73 | 44-27300 | Strange Cargo |
| 77 | 44-27297 | Bockscar |
| 82 | 44-86292 | Enola Gay |
| 83 | 44-27298 | Full House |
| 84 | 44-27296 | (not named) |
| 85 | 44-27301 | Straight Flush |
| 86 | 44-27299 | Next Objective |
| 88 | 44-27304 | (later Up an' Atom) |
| 89 | 44-27353 | The Great Artiste |
| 90 | 44-27354 | (not named) |
| 91 | 44-27291 | Necessary Evil |
| 94 | 44-27346 | (not named) |
| 95 | 44-86347 | Laggin' Dragon |

#

TEG:510-L1

**WENDOVER ARMY AIR FIELD, UTAH**

The 509th Composite Group assembled and began training in late 1944 at Wendover Army Air Field in Utah. Wendover was chosen for its isolation and availability for immediate use. The base was also convenient to Los Alamos, New Mexico, where Manhattan Project scientists were developing the atomic bomb.

The group trained in relative isolation and under strict security, preparing for bombing missions whose nature could not be disclosed to them. Tibbets could only assure them that they had been "brought here to work on a very special mission," and that they were "going to take part in an effort that could end the war."

#

TEG:510-L2-P2
photo

This sign greeted members of the 509th at Wendover. Though such warnings were not uncommon on wartime bases throughout the United States, they took on special significance here. Tibbets further admonished them, "Don't answer any questions from anybody not directly involved in what we will be doing.... Don't ask what the job is. That is a sure-fire way to be transferred out."

#

TEG:510-L3-P3
photo

The bomber crews practiced dropping various types of bombs, including huge, bright orange ones they nicknamed "pumpkins." The pumpkins were shaped like "Fat Man," the atomic bomb that would be dropped on Nagasaki. Manhattan Project scientists monitored the drops to test the ballistics and fusing mechanisms of the bombs.

Courtesy of Los Alamos National Laboratory

#

TEG:520-L1

**TINIAN ISLAND, THE MARIANAS**

The 509th Composite Group transferred overseas in mid-1945, regrouping on the small Pacific island of Tinian in the Marianas Islands. Along with nearby Guam and Saipan, Tinian had been captured from the Japanese nearly a year earlier and converted into a massive air base for the bombing of Japan.

Here, the 509th continued to train, while the secrecy surrounding their mission remained tight. The mystery that had been so cautiously guarded would soon be revealed to the world.

#

TEG:520-L2-P2
photo

The island of Tinian.
Courtesy of William Webster

#

TEG:520-L3-P3
photo

The airfield on Tinian.
Courtesy of William Webster

#

TEG:520-L4-S4
artifact: receipt for uranium

The receipt for the uranium components of "Little Boy," the atomic bomb that the Enola Gay dropped on Hiroshima.
Lent by the Smithsonian Institution Libraries

#

TEG:520-L5-P5
photo

Manhattan Project scientist and Navy Capt. William "Deak" Parsons (left) and Col. Tibbets (right) brief the crews that will carry out the Hiroshima mission. Parsons, who helped design the fusing device and casings for the atomic bombs, described to the crews the power of the weapon they were about to drop.

#

TEG:520-L6-P6
photo

The operations order for the Hiroshima mission. The order specified that the bomb type to be used was "special," but did not mention that it was atomic.

Courtesy of the Hoover Institution

#

TEG:520-L7-P7
photo

To document the Hiroshima mission for historical purposes, camera crews filmed the Enola Gay crew on the tarmac just before takeoff in the early morning hours of August 6, 1945.

#

TEG:530-L1

**THE MISSION OF THE "ENOLA GAY"**

At about 2:45 a.m., local time, on August 6, 1945, the Enola Gay took off from Tinian, followed by the two other B-29s that would accompany it to Hiroshima. One carried instruments to measure the atomic blast, the other carried equipment to photograph it. About three hours later the planes arrived over Iwo Jima, where they rendezvoused and proceeded on toward Japan.

At 6:15 a.m., Hiroshima time, a weather plane reported that the cloud cover over the city was favorable for visual bombing. The Enola Gay arrived at Hiroshima about two hours later, and at 8:15 a.m. "Little Boy" was released from its bomb bay. Forty-three seconds later, a brilliant flash lit the sky. Tibbets announced, "Fellows, you have just dropped the first atomic bomb in history."

Three days later, Bockscar dropped another atomic bomb on Nagasaki. Five days after that, Japan surrendered.

#

TEG:530-L2-P2
photo

Pilot of the Enola Gay on the Hiroshima mission, Col. Tibbets waves from the cockpit before takeoff.

#

TEG:530-L3-P3
photos: front pages of newspapers announcing the bombing.

[CREDIT LABEL DELETED]

#

TEG:530-L4-S4
artifact: CBS correspondent Walter "Tim" Leimert's transcript of his August 8th radio broadcast.

CBS correspondent Walter Leimert was stationed on Guam at the time of the Hiroshima bombing. This is his transcript of his August 8th radio broadcast about that event.

Lent by Walter Leimert

#

TEG:530-L5-S5
artifact: Leimert's press card.

Leimert's press card.

Lent by Walter Leimert

#

TEG:530-L6

**ITEMS FROM THE AUGUST 6, 1945, MISSION OF THE "ENOLA GAY"**

#

TEG:530-L7-S7
artifact: Navigator's log

This is a copy of the log of the Hiroshima mission that was kept by the Enola Gay's navigator, Capt. Theodore "Dutch" Van Kirk. Note the words "Bomb away" at 0915, Tinian time.

Courtesy of Theodore "Dutch" Van Kirk

#

TEG:530-L8-S8a,b,c
artifact: Navigator's artifacts

Van Kirk used these computers, earphones, sextant, and navigation watch during the Hiroshima mission.

Lent by Theodore "Dutch" Van Kirk

#

TEG:530-L9-S9

[LABEL DELETED]

#

TEG:530-L10-S10
artifact: goggles

Crew members were forewarned that the bomb would create an extremely bright flash. They were provided with goggles, similar to those worn by welders, to protect their eyes. These were worn by Capt. George Marquardt.

Lent by George Marquardt

#

TEG:530-L11-P11
photo

The mushroom cloud from the Hiroshima bomb, photographed by Staff Sgt. George Caron from the tail gunner's position of the Enola Gay.

#

TEG:600-L1-P1
Color slide

A rare color photo of the Enola Gay on Tinian.

From the Garner Collection, courtesy of the Airmen Memorial Museum

#

TEG:600-L2-P2
Color slide

The Great Artiste accompanied the Enola Gay on its historic mission.

From the Garner Collection, courtesy of the Airmen Memorial Museum

#

TEG:600-L3-P3
Color slide

Bockscar dropped the second atomic bomb, "Fat Man," on Nagasaki on August 9, 1945.

From the Garner Collection, courtesy of the Airmen Memorial Museum

#

TEG:600-L4-P4
Photograph (66366AC)

A gunner's view from the sighting "blister" on the rear fuselage of a B-29.

#

TEG:600-L5-P5
Photograph (95-2475)

B-29s of the 509th Composite Group on Tinian after the end of the war.

#

TEG:600-L6-P6
Photograph (58692AC)

The camel silhouettes on this China-based B-29 represent resupply flights over "the Hump" of the Himalayas.

#

TEG:600-L7-P7
Photograph (55284AC)

Loading ammunition for the B-29's many defensive guns.

#

TEG:600-L8-P8
Photograph (56544AC)

B-29s on a mission to Japan lined up for takeoff on Saipan.

#

TEG:600-L9-P9
Photograph (95-2476)

These temporary residents of Tinian seized the opportunity to pose with the Enola Gay.

#

TEG:600-L10-P10
Photograph (88-6622)

Servicemen seized any chance to pose with the Enola Gay after its historic mission.

#

TEG:600-L11-P11
Photograph (59027AC)

This B-29 ditched in the water just off Saipan. Despite rescue efforts, three crewmen perished.

#

TEG:600-L12-P12
Photograph (68039AC)

Unable to land on Iwo Jima due to fog, this B-29 had to ditch offshore.

#

TEG:600-L13-P13
Photograph (A57482AC)

One of the first wartime uses of the helicopter, a Sikorsky R-4B ferries B-29 parts from supply ships to repair crews in the Marianas.

#

TEG:600-L14-S14
Caption for Phillips painting.

**DAWN, THE WORLD FOREVER CHANGED**

In the early morning hours of August 6, 1945, the B-29 named Enola Gay circled over its Iwo Jima rendezvous point enroute to the Japanese city of Hiroshima.



Courtesy of The Greenwich Workshop, Inc., Shelton, Connecticut

#

TEG:600-L15
To go with comments box.

Please drop your comments in here.

#

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