The supersecret mission required preparation and practice runs.

Tinian’s Atomic Bombers

Photos via Warren E. Thompson

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Late in World War II, Col. Paul Tibbets Jr. took command of the 509th Composite Group to carry out a special, secret mission: attacking Japan with atomic bombs. The unit took shape at Wendover AAF, Utah, and then deployed to Tinian Island in the Pacific. Practice and familiarization missions preceded the attacks on Hiroshima and Nagasaki. The “Silverplate” B-29s shown on these pages were among those that carried out or supported the missions. The tail symbol of the 509th was an arrow inside a circle, but to hide the unit’s identity and confuse the Japanese, tail codes and symbols were regularly changed. The ground crew member here is repainting the vertical stabilizer symbol.

Bockscar, piloted by Maj. Charles Sweeney, dropped the second A-bomb on Aug. 9, 1945, on Nagasaki. The primary target was Kokura, but bad weather there shifted the mission to Nagasaki. Bockscar is on permanent display at the National Museum of the US Air Force in Ohio.

The image of the mushroom cloud over Nagasaki was taken from the tail gunner’s position as Bockscar made a high-speed dash to outrun the blast. The bomber was still caught by the shock wave.
Arguably the most famous named airplane, Enola Gay is shown at Tinian. Later, “Fat Man” mission markings would be applied to the canopy rail. After years of controversy about whether and how it would be displayed for posterity, today the fully restored bomber is a central exhibit at the National Air and Space Museum’s Udvar-Hazy Center in Chantilly, Va. A briefing before Enola Gay’s mission. At far left is Tibbets, the mission commander and pilot of the aircraft. Facing the camera at the head of the table is Gen. Carl Spaatz, commander of US Strategic Air Forces in the Pacific. Big Stink supported both A-bomb missions: It was the backup aircraft for the Hiroshima attack, though it stayed behind on Tinian, and provided standoff photography for the Nagasaki mission.

Maj. Gen. Curtis LeMay, 20th Air Force commander, standing in front of a B-29 on Saipan. LeMay, an aggressive advocate of bombers and the architect of the bombing campaign against Japan, went on to lead Strategic Air Command.
Laggin’ Dragon flew weather reconnaissance over Nagasaki and confirmed the conditions there were acceptable.

The loading pit on Tinian. Fuses were to be set here, but fears of a takeoff crash led to the bombs being armed in flight.

Great Artiste was named after Sweeney’s bombardier, Capt. Kermit Beahan, known to be the 509th’s most accurate bomber. Note the “Fat Man” mission markings on the canopy rail.

Here, Enola Gay, at left, has just returned from the Hiroshima mission and members of the 509th are surrounding the crew. Due to intense secrecy, it was only at this point that many of the group’s personnel realized the nature of the weapon they were working with.
A critical, secret mission with an unproven weapon demanded rehearsals. Practice missions were flown with “Pumpkin Bombs”—their official designation, so-called because of their shape. They mimicked the weight and behavior of the “Fat Man” atomic bomb. Some were inert, but some had explosive fill, and 49 were used against targets in Japan. Some Pumpkins flew several such missions. Down time between Pumpkin missions, circa Aug. 1, 1945. Next Objective carried markings of the 444th Bomb Group as a deception tactic. An early model of the “Fat Man” atomic bomb; Pumpkin Bombs were very similar in shape. Tibbets, at right, wishes Sweeney good luck just before the mission to Nagasaki.
In the predawn hours, Bockscar crew members discuss the route to their target. Left to right: Capt. James Van Pelt, navigator; Sweeney; and 2nd Lt. Fred Olivi, an observer.

The Hiroshima weapon was “Little Boy.” A test version is shown here being lowered into the loading pit at a Stateside location. The B-29 would be positioned over the pit and the bomb winched into the weapons bay.

Up an’ Atom was the weather scout over Kokura, initially the primary target for the second bomb dropped on Japan. Visibility was too poor for a successful drop, sending Bockscar on to its secondary target, Nagasaki.

Strange Cargo used the symbol of the 497th Bomb Group on its vertical stabilizer and flew four Pumpkin missions.
The supply needs of the 509th were met by the 320th Troop Carrier Squadron. All the A-bomb parts were brought to Tinian either by C-54s or by USS Indianapolis. Here, a C-54 is unloaded on Tinian. Enola Gay’s ground crew gets ready to start engines for the Hiroshima mission. Top Secret, like most of the 509th bombers, was a B-29-35, which differed from standard B-29s. Tibbets ordered certain features removed, such as the dorsal gun turret, to reduce weight and extend range. Straight Flush was a weather scout for the Hiroshima mission.
I11 Circa 1949, this picture shows some of the enduring damage from the A-bomb in Hiroshima. This is the Prefectural Building for the Promotion of Industry, near the epicenter of the blast. I21 A Pumpkin Bomb leaves the bomb bay of a B-29 over Japan. Given their large size, Pumpkins with explosive fill could do significant damage. I31 Full House flew weather recce over Enola Gay’s secondary target, which was Nagasaki. I41 Lt. John Dulin, navigator on Strange Cargo, in his B-29 “office.”

To commemorate and preserve the heritage of the 509th, the Air Force’s B-2 stealth bombers of Whiteman AFB, Mo., operate as the 509th Bomb Wing.